

## 2 NON-TECHNICAL SUMMARY

This Environmental Impact Assessment Report (EIAR) presents the assessment of environmental impacts and applicable mitigation measures associated with the residential development in the Townlands of Maynetown and Portmarnock, Portmarnock, Co. Dublin and partially located in the townland of Stapolin, Baldoyle, Dublin 13 ('the Proposed Development'). This EIAR for the Proposed Development has been prepared on behalf of Portmarnock Real Estate Developments Limited ('the Applicant'). This EIAR accompanies a Large-scale Residential Development (LRD) planning application made to Fingal County Council (FCC).

The EU Environmental Impact Assessment (EIA) Directive requires the production of a Non-Technical Summary as part of the production of an EIAR. The Non-Technical Summary ensures that the public is made aware of the environmental implications of any decisions on new developments to take place. The Non-Technical Summary is laid out in a similar, but summarised format to the main EIAR, describing the project, existing environment, impacts and mitigation measures.

Assessments have been conducted in an integrated, collaborative and analytical process in accordance with the Guidelines on the environmental topics to be examined. This seeks to identify the potential for significant adverse environmental impacts arising from the Proposed Development. Where significant adverse environmental impacts have been identified as potentially occurring during the Construction and Operational Phases of the development, specified ameliorative, remedial or reductive measures are identified.

This chapter has been prepared by Richard Kealey, Senior Planner and Ana Jovanovic of Stephen Little & Associates. Richard has c. 9 years' professional experience in planning in both the public sector and private consultancy, has a BSc in Geography and a MSc in Sustainable Development. Ana has c. 1 year of professional experience in the planning field, has a Bachelor of Science (Honours) (City Planning & Environmental Policy, MRUP (Regional & Urban Planning)).

### 2.1 Purpose of the EIAR

The objective of this EIAR is to identify and describe the likely significant effects of the Proposed Development on the environment as well as to describe the means and extent by which they can be reduced or ameliorated, to interpret and communicate information about the likely impacts; and to provide an input into the decision making and planning process.

### 2.2 A Note on Quotations

EIARs by their nature contain statements about the proposed development, some of which are positive and some less positive. Selective quotation or quotations out of context can give a misleading impression of the findings of the study.

Therefore, the study team urge that quotations should, where reasonably possible, be taken from the overall conclusions of specialists' section or from the non-technical summary, and not selectively from the body of the individual chapters.

### 2.3 The Requirement for an EIAR

The process to determine whether an EIA is required for a Proposed Development is called Screening. This is dependent on the mandatory legislative threshold requirements or the type and scale of Proposed Development and significance or environmental sensitivity of the receiving environment.

The EIA Directive requires EIA for all development projects listed in Annex I of the Directive. Schedule 5 (Part 1) of the Planning & Development Regulations 2001 – 2018 brought Annex I of the EIA Directive directly into Irish planning legislation. The Directive prescribes mandatory thresholds in respect to Annex I projects.

The EIA Directive also provides EU Member States discretion in determining the need for an EIA on a case-by-case basis for certain classes of project, set out in Annex II of the Directive. The determination of the need for EIA is made having regard to the overriding consideration that projects likely to have significant effects on the environment should be subject to EIA.

The Fifth Schedule of the Planning and Development Regulations lists classes of development where an EIA is mandatory under Part 1 and where an EIA may be required under Part 2. Where a project falls within a criterion for a type of development and / or exceeds a threshold as listed in Part 1 or Part 2, then it must be subjected to EIA.

Schedule 5 (Part 2) of the Planning & Development Regulations sets out mandatory thresholds for each project class. Class 10 of Schedule 5 Part 2 addresses 'Infrastructure Projects' and requires that the following class of project be subject to EIA: (b)(i) **Construction of more than 500 dwelling units**. Category 10(b)(iv) refers to Urban development which would involve an area greater than 2 hectares in the case of business district, **10 hectares in the case of other parts of a built-up area** and 20 hectares elsewhere.

The proposed number of residential units is 296no. in total and therefore falls below the threshold requiring an EIAR for 500no. dwellings or more. However, when combined with the permitted Phases 1E (FCC Reg. Ref. LRD0002/S3) – 195no. units (now under construction) and 1D (ABP Ref. ABP-312112-21 refers) – 172no. units (now under construction), the cumulative number of units amounts to c. 663no. units within the Portmarnock landholding of the Applicant. This cumulative figure exceeds the threshold he threshold under Class 10(b)(i) of Part 2 of the Fifth Schedule of the Regulations, namely: "construction of more than 500no. units". As such, an EIAR is submitted to FCC with this LRD planning application.

## 2.4 Description of Proposed Development

The proposed development will comprise

- 296no. units (254no. houses and 42no. apartments/duplexes ranging from 1.5 – 3 storeys in height).
- Provision of public open space, including southern Monument Park (which also formed part of Racecourse Park development permitted under ABP Ref.: JP06F.311315
- A total of 289no. car parking spaces and 1455no. bicycle parking spaces.
- Vehicular access to serve the development will be provided from Station Road via existing road serving St. Marnock's Bay ('Monument View') and 3no. permitted roads serving St. Marnock's Bay ('Skylark Park Court', 'Skylark Park Drive' and an extension of 'Monument View') permitted under ABP Ref. ABP-312112-21 as amended by FCC Reg. Ref. LRD0037/S3, and also a new existing permanent road to the south which connects to Moyne Road (permitted under Phase 1D ABP Ref. ABP-312112-21, as amended by FCC Reg. Ref. LRD0037/S3
- A new (temporary) rising main to serve this phase and previous development phases (1A to 1E inclusive) c. 1.7km long, running from the interim St. Marnock's Pumping Station at Station Road/The Avenue (constructed under ABP Reg. Ref. 300514-17 & upgraded under ABP Reg. Ref. 312112-21) passing through the Racecourse Park development permitted under ABP Ref.: JP06F.311315 and connecting to the North Fringe Sewer at a point which is located south of Moyne Road and the Mayne River within the townland of Stapolin, Baldoyle, Dublin 13
- Upgrade of interim St. Marnock's Pumping Station and storage at Station Road/The Avenue as required and all associated and ancillary site development and reinstatement.
- All associated and ancillary site development, infrastructural, landscaping and boundary treatment works.

Chapter 3: Description of Proposed Development of this EIAR sets out the detailed description of the Proposed Development.

## 2.5 Examination of Alternatives (Chapter 4)

Potential alternatives to the Proposed Development were considered as the scheme progressed. The 'Do-Nothing' alternative was explored, with a conclusion that a do-nothing approach would be contrary to the Development Plan objectives for the development of residentially zoned lands.

A number of site layout and alternative designs were considered during the iterative design process in consultation with FCC.

The development as now proposed is considered to have arrived at an optimal solution in respect of making efficient use of zoned, serviceable lands whilst also addressing the potential impacts on the environment relating to residential, visual, natural and environmental amenities and infrastructure.

It is considered that the Proposed Development is wholly consistent with relevant national and local planning policy, will regenerate a key city centre site and minimises the potential for environmental impacts.

## 2.6 Population and Human Health (Chapter 5)

This chapter evaluates the impacts, of the Proposed Development on human health of the population surrounding the proposed residential development in the development in the townlands of Maynetown and Portmarnock, Portmarnock, Co. Dublin and partially located in the townland of Stapolin, Baldoyle, Dublin 13.

According to the 2016 census results there are c. 3,621no. people living within the study area. National health trends were consulted to give an overall indication of the general wellbeing of the population.

Census data shows that the population in the Fingal County area grew by 8% between the years 2011 and 2016 compared with 3.8% nationally. The electoral division for the site, Portmarnock South, saw a lower rate of growth with an increase of 4.4%

There is a potential for negative impacts to health during the Construction Phase of the Proposed Development relating to increases in noise levels, air quality emissions and vehicle movements. These are discussed in more detail in each respective chapter.

During the Operational Phase of the Proposed Development, existing and new residents will have access to a high-quality environment with an increase in services available in the immediate area. This can bring benefits to physical health through additional opportunities for exercise and spending time outdoors. Links to more sustainable forms of transport can also lead to a decrease in the levels of air pollution therefore further aiding the effects on physical health.

Increased access to open space and services can also lead to benefits for mental health and wellbeing with increased links to nature granted by the formalised access to through the Site and recreational opportunities.

Mitigation measures relating to health impacts arising from the construction and operation of the scheme which are based on other technical disciplines within this EIAR are outlined in each respective chapter. Standard best practice and mitigation measures are recommended throughout in order to ensure any impacts are minimised as far as possible.

In relation to population, the residual impacts of a large population increase are long term and positive. For Human Health, the potential for improvements in health relate to the improved access to open space and services.

## 2.7 Biodiversity (Chapter 6)

The assessments involved desk and field studies by qualified and experienced ecologists. The methodologies used to determine the value of ecological resources, to characterise impacts of proposed development and to assess the significance of impacts and any residual effects are in accordance with the National Roads Authority (NRA) *Guidelines for Assessment of Ecological Impacts*

of National Road Schemes<sup>1</sup>. This methodology is consistent with the CIEEM *Guidelines for Ecological Impact Assessment in the United Kingdom and Ireland – Terrestrial, Freshwater, Coastal and Marine*<sup>2</sup>.

### Receiving Environment

The proposed development site, though it is in a prominent location near to Baldoyle Bay, is not under any wildlife or conservation designation. It is zoned for residential development such as that proposed in this planning application.

No rare, threatened or legally protected plant species are known to occur within the site and none have been recorded. No rare habitats or habitats of particularly high ecological value (i.e. International, National or County) are present at the site. No evidence of roosting bats, badgers, reptiles or amphibians has been recorded and no significant features suitable for use by these species was recorded on or in the vicinity of the Site. The grassland on the site, and the townland boundary running through the centre of the adjacent Phase 1D lands, and to the west of Phases 1E and 1F, are the only feature of any ecological interest in the immediate vicinity. That hedgerow/tree line is to be retained and incorporated within purposed open space (Skylark Park and Linear parks – as per the LAP) and will continue to be protected during the construction of Phase 1E and 1F.

Overall, the majority of the Phase 1F lands are, botanically, species poor, with no significant habitats present, other than an area of grassland on the northern part of the subject site (and the southern scrub/grassland matrix and the River Mayne ecological corridor).

The overall (expired) Portmarnock South LAP lands are of value for a range of bird species, and small numbers of the red-listed kestrel, oystercatcher, golden plover, lapwing, black-tailed godwit, curlew, meadow pipit and redwing, as well as the amber-listed lesser black-backed gull, skylark, barn swallow, house martin, mallard, black-headed gull, common gull, herring gull, northern wheatear, willow warbler, goldcrest, starling and linnet have all been recorded in surveys undertaken in the preparation of the current planning application (in surveys covering the Phase 1F area as well as the lands to the east and south – the Bird Quiet Zone and Ecological Buffer Zone). In addition, light-bellied Brent goose has been recorded, but only flying over the site. However, the site proposed for development is unsuitable for use by grazing light-bellied Brent geese. None were found on the lands.

Overall, despite its location adjacent to Baldoyle Bay, with the exception of the grassland habitat (of Local Importance (higher value)) the Site is of no more than Local Importance (Lower Value), in accordance with the ecological resource valuations presented in the National Roads Authority Guidelines for Assessment of Ecological Impacts of National Road Schemes (NRA/TII, 2009 (Rev. 2)).

Sluice River Marsh pNHA includes a total of seven notable habitats, including wet willow-alder wetland, reedbed and swamp, wet grassland, marsh and upper saltmarsh. The nationally rare curved hard grass is known from the site, which is also utilised by a number of bird species in winter, including light-bellied Brent geese, redshank, bar-tailed godwit, little egret, kingfisher and merlin. The bird species that utilise the Sluice River Marsh pNHA are likely to form part of the overall bird assemblage of Baldoyle Bay SPA and are therefore considered in the accompanying NIS. Given its location relative to the Proposed Development area it is not considered remotely likely that the other habitats and species within and associated with this pNHA will be impacted upon.

### Impact Assessment

#### Designated Conservation Areas

A separate Natura Impact Statement (required under the EU Habitats and Birds Directive) has concluded on the best scientific evidence that it can be clearly demonstrated that no elements of the project will result in any impact on the integrity or Qualifying Interests/Special Conservation Interests

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<sup>1</sup> National Roads Authority (NRA) (2009). *Guidelines for Assessment of Ecological Impacts of National Road Schemes*.

<sup>2</sup> CIEEM (2019). *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine*.

of any relevant European site, either on their own or in-combination with other plans or projects, in light of their conservation objectives.

### Construction Phase

Given the nature, scale and duration of the construction phase for the Proposed Development there is the potential for temporary slight negative impacts on water quality arising during the construction phase of the Proposed Development.

The Proposed Development will result in the removal of an area of spoil, bare ground and recolonising bare ground, as well as the removal of an area of grassland. These features will be replaced with new residential development in compliance with the land zoning as well as new, biodiversity-focused landscaping. In the absence of mitigation the habitat loss will result in a long-term to permanent, slight to moderate negative impact at a site level.

### Operational Phase

The Proposed Development will result in the removal of an area of spoil, bare ground and recolonising bare ground, as well as the removal of an area of grassland. These features will be replaced with new residential development in compliance with the land zoning as well as new, biodiversity-focused landscaping.

The Proposed Development will involve the removal of much of the existing area of the Site and its replacement with residential development, open space/landscaping and infrastructure. This has the potential to impact on breeding birds, and foraging/commuting bats due to loss of foraging areas, breeding habitat and commuting pathways. No roosting bat species were identified within the Site boundary and no impacts on roosting bats are expected.

Given the nature, scale and duration of the operational phase for the proposed development, there is the potential for long-term to permanent, moderate, negative impacts on the local fauna due to change of land use. There will be no significant impacts on amphibians, reptiles and lepidoptera.

Lighting can affect different species to varying degrees and within species there is also a range of responses to introduced light ranging from minimal effects to complete avoidance. Bats may actively avoid artificial lighting, especially if it is shining upon a roost site. There are no bat roosts within the Site, however, bats commute through and forage at the site. Lighting from the proposed development during the operational phase may, unmitigated, have a permanent, moderate, negative impact upon bats.

### Cumulative Impacts

Neither the development proposed nor any other developments will give rise to any significant impacts on biodiversity and there are no predicted cumulative impacts in relation to biodiversity, for example in terms of habitat loss or disturbance to protected species, as a result of the Proposed Development in combination with existing / proposed plans or projects.

### **Mitigation**

Specific mitigation measures for the European sites are contained within the accompanying NIS and the Construction and Environmental Management Plan for the Proposed Development. These include strict measures to ensure the protection of water quality as well as measures to ensure no impact outside the working area and in particular on the habitats and bird species that form the Qualifying Interests and Special Conservation Interests of Baldoyle Bay SAC and SPA.

No mitigation measures are required to prevent any impacts on Sluice Marsh pNHA.

Where feasible and practicable, the clearance of vegetation will be undertaken outside the bird nesting season. The planting and long-term management proposed will enhance the biodiversity resource on the proposed development by creating new, pollinator-friendly habitats. It will take account of and implement the relevant objectives of the All-Ireland Pollinator Plan 2021- 2025. All

planting plans and landscaping proposals will further ensure that no invasive species are introduced, either deliberately or inadvertently, to the proposed development site. The lighting design for the proposed development includes measures to prevent any impacts on commuting or foraging bats, and bat boxes will be installed to provide new roosting opportunities for bats. An Outline Habitat Management Plan has been prepared (Outline HMP), and all works will be in compliance with the Outline HMP and the Landscape Design Statement prepared by Brady Shipman Martin and submitted separately.

Measures related to the protection of water will also be implemented.

### Residual Impacts

There will be a limited loss of feeding within the site for bats and birds and a loss of nesting areas for birds. Vegetation will establish over time and these losses will be reduced considerably. There will still be less cover for birds following all mitigation. There will be very limited (neutral to slight negative) long-term impact upon bats within the site given the low level of bat activity noted. There will be no loss of roost potential as the site develops.

The biodiversity-focused planting, as set out in the landscape specifications that accompany the application, will ultimately enhance the biodiversity value of the completed development.

## 2.8 Land, Soil, Geology & Hydrogeology (Chapter 7)

Egis Engineering Ireland Ltd. carried out an assessment of the existing environmental setting and the likely significant impacts on land, soil, geological and hydrogeological aspects, associated with the proposed residential development at Portmarnock South Phase 1F in the townlands of Maynetown and Portmarnock, Portmarnock, Co Dublin and partially located in the townland of Stapolin, Baldoyle, Dublin 13.

The characteristics of the potential and predicted impacts during the construction and operational phase of the development were assessed and evaluated. Where an impact was identified, appropriate mitigation measures to avoid any identified significant effects to land, soils, geology and hydrogeology were recommended and the residual impacts of the proposed development post-mitigation are assessed.

The information on land, soils, geology and hydrogeology underlying the proposed development has been compiled from a desk study assessment of available published information from national databases and site archives. The following sources were reviewed for collection of baseline regional data: -

- Geological Survey of Ireland (GSI) – data and maps.
- Teagasc- soils and subsoils database.
- Tailte Éireann – Current and historical mapping.
- Environmental Protection Agency (EPA) – data and maps.
- National Parks and Wildlife Services (NPWS) – Protected Site Register.

Site specific information was derived from site investigations carried out on the proposed development area and include: -

- Ground Investigations Ireland Ltd (2024) Ground Investigation Report, Portmarnock Phase 1E & 1F,
- Ground Investigations Ireland Ltd (2022). Ground Investigation Report, Portmarnock,
- Site Investigations Ltd (2018). Site Investigation Report, Portmarnock South-Phase 1B, Portmarnock, Co. Dublin,
- Glover Site Investigations Ltd. (2006). Site Investigation, Proposed Development at Portmarnock, Co. Dublin.

## Receiving Environment

Current land use for the Proposed Development according to Corine 2018 is non-irrigated arable lands (Code\_18\_211) and comprises of agricultural areas, however, some soils have been previously stripped within the outline of the Proposed Development and part of the area is now in use as a construction compound and a temporary haul road south towards Moyne Road. The land adjacent to the north-east is described as discontinuous urban fabric (Code\_18\_112) and comprises of artificial surfaces. The area c. 250m east of the site comprises of salt marshes and intertidal flats.

The Teagasc soil mapping indicates that the soils beneath the proposed site are comprised primarily of deep well drained mineral soil derived from calcareous parent material (BminDW) and poorly drained mineral soil derived from calcareous parent materials (BminPD).

The GSI Quaternary sediments mapping indicates that the Proposed Development is underlain by Till derived from limestones.

The GSI Bedrock Geology Map indicates that the Proposed Development is underlain by Lower Carboniferous (Courcayan Stage) Limestones which is referred to as Malahide Formation (Rock Unit code: CDMALH). This geological formation comprises argillaceous bioclastic limestone, shale.

The GSI mineral database and EPA Extractive Industry Register were consulted. There are no active or historic quarries within the Proposed Development site. The nearest active quarries in the area include Feltrim Quarry, c. 4.5 km to the north-west and Huntstown Quarry, c. 12.5 km to the west of the development area.

A number of historic pits and quarries were identified in the vicinity.

The nearest Geological Heritage Sites are Malahide Coast and North Bull Island, which are located c. 2.8 km north-east and c. 3.8 km south of the Proposed Development respectively. Feltrim Quarry is also a geological site located c. 4.5 km to the north-west of the development. There is no risk envisaged to the heritage sites due to the project.

There are National Parks & Wildlife Services (NPWS) protected sites within the study area in the vicinity of the Proposed Development, namely; Baldoyle Bay SAC, Baldoyle Bay SPA, North-West Irish Sea SPA, Baldoyle Bay pNHA and Sluice River Marsh pNHA.

According to the EPA data and maps there are no integrated pollution prevention and control or industrial emission licensed (IPPC or IEL) facilities in the vicinity of the Proposed Development nor within the 2km buffer zone. There is no record of any landfills or licenced waste facilities in the vicinity of the Proposed Development nor within the 2km buffer zone.

According to the EPA data the Proposed Development is located in an area where about 1 in 20 of the homes in this area is likely to have high radon levels.

The Proposed Development is underlain by Locally Important Aquifer (LI), bedrock which is moderately productive only in local zones.

The GSI online database was consulted for groundwater vulnerability and the underlying aquifer type for the proposed development. The groundwater vulnerability at the site is classified as 'low' which indicates an overburden depth of c. 10m of low permeability soil is present. This was confirmed in the site investigations undertaken in 2006.

The nearest groundwater borehole is located c. 2.0 km to the south-west of the development. The well is under industrial use and has a good yield as per the GSI data viewer. The nearest drinking water protection area is located 22km west of the site in Co. Meath at the Dunboyne public water supply.

There are no Groundwater Dependent Terrestrial Ecosystems (GWDTE) within the qualifying interests for Baldoyle Bay SAC hence they will not be affected by the proposed development.

The closest identified Karst Landform is St. Doolaghs Well, approx. 2.35km to the west, which is a spring (IE\_GSI\_Karst\_40K\_339). St Doolagh's well is encountered in an area of Waulsortian Limestones rather than rock from the Malahide Formation.



Ground Investigations, which were carried out both in and in the vicinity of the Proposed Development, indicate topsoil overlying firm to stiff brown slightly sandy gravelly CLAY containing smooth sub-rounded cobbles overlying stiff to very stiff black sandy gravelly CLAY containing occasional smooth sub-rounded cobbles and boulders.

### Assessment

The proposed development was assessed for both the construction and operation stages with potential impacts identified as;

- **Loss of Soil Cover, Soil Erosion and Compaction**

The loss of soil cover, soil erosion, and soil compaction will have a temporary, negative, not significant impact.

- **Excavation of Soil**

Excavation and removal of soils and subsoils will be required to accommodate the installation of services, drainage, rising main, foundations of the buildings and levelling of the site. There will be no rock excavation on the site. Any impact resulting from excavation will be negligible in magnitude and imperceptible in significance.

During construction, aquifer vulnerability may be slightly increased due to a reduction in depth of overburden in areas of excavation which may increase the potential for migration of contaminants (from accidental spills) to the underlying bedrock aquifer. However, due to the thickness of low permeability overburden (>10 m)) and the "low" groundwater vulnerability classification (Low), the impact of the reduction in overburden depth on the groundwater quality will be negligible in magnitude and imperceptible in significance and highly unlikely as there are no proposed discharges to ground.

- **Potential Surplus and Unsuitable Soils arising from Earthworks**

Any surplus soil not suitable for re-use will be removed off-site by an authorised contractor and sent to the appropriately authorised (licensed/permitted) receiving waste facilities. As only authorised facilities will be used, the potential impacts at any authorised receiving facility sites will have been adequately assessed and mitigated as part of the statutory consent procedures. As such, it is considered that off-site removal of surplus soil will have an indirect neutral, imperceptible long-term impact on the receiving sites and facilities.

- **Accidental Spillages - Contamination of Soils and Groundwater**

The impact of accidental spillages on soils (of low to high importance), would result in small adverse magnitudes of impact, of temporary duration, on soils, resulting in imperceptible to moderate significance, depending on the nature of the incident. This will reduce to negligible as a result of good construction practice and management of hazardous materials/fuels etc. on site, and as consequence the significance of impact is considered to be imperceptible.

The impact on groundwater water quality from localised accidental spillages is predicted to be negligible to small adverse in magnitude and imperceptible to slight in significance, temporary in duration and unlikely given no suitable pathway between source (spillage) and receptor (aquifer).

These will reduce to negligible as a result of good construction practice and management of hazardous materials/fuels etc. on site, and as consequence the significance of impact is then considered to be imperceptible.

- **Reduction in Recharge Area**

The Proposed Development will create impermeable surfaces (roofs, roads and hardstanding areas) which results in a reduction in recharge to the aquifer. The site is underlain by >10 metres of low permeability overburden which also severely restricts recharge. When



compared to the overall recharge area to the aquifer, which amounts to thousands of hectares, the reduction in recharge area (c. 4.5Ha) is insignificant. Taking into account the fact that the aquifer is only locally important (medium importance attribute) and that there are very few groundwater users, the overall magnitude of impact on the groundwater resource due to loss in recharge area will be negligible and thus imperceptible in significance.

A Construction Environmental Plan has been prepared for this application and will be implemented for the construction of this proposed development. It includes best practice measures to minimise or reduce the risk of pollution events arising from the works.

## 2.9 Water & Hydrology (Chapter 8)

Egis Engineering Ireland Ltd. carried out an assessment of the likely potential impacts on the surrounding water bodies associated with the proposed residential development at Portmarnock South Phase 1F in the townlands of Maynetown and Portmarnock, Portmarnock, Co. Dublin and partially located in the townland of Stapolin, Baldoyle, Dublin 13.

The characteristics of the potential and predicted impacts during the construction and operational phase of the development were assessed and evaluated. Where an impact was identified, appropriate mitigation measures to avoid any identified significant effects to surrounding water bodies were recommended and the residual impacts of the proposed development post-mitigation were assessed.

In assessing likely potential impacts, the importance of the relevant waterbody attribute as well as the scale and duration of potential impacts are considered.

### Receiving Environment

The three relevant waterbodies to this proposed development are;

- The Sluice River, which rises to the north of Dublin Airport and flows by way of Kinsealy, lies approximately 150 – 200m to the north of the proposed development and outfalls into the head of Baldoyle Bay at Portmarnock Bridge. The Sluice River is 'Under Review' with respect to the Water Framework Directive risk assessment and is considered of 'Medium' importance based on river quality attribute.
- The southern part of the lands is connected to the Mayne River via an open ditch which runs parallel to and then crosses the Moyne Road. The Mayne River, which rises near Dublin Airport, lies approximately 600 – 650m to the south of the proposed development (noted however that the proposed rising main to serve this and previous phases of the development will cross below this river), also discharges to Baldoyle Bay at the Coast Road (R106), to the south of the Moyne Road/Coast Road junction. The Mayne River is 'At Risk' with respect to the Water Framework Directive risk assessment and is considered of 'Medium' importance based on river quality attribute.
- Baldoyle Bay/Mayne Estuary (located 200m to the east of the proposed development) is a tidal estuarine bay protected from the open sea by a large sand-dune system and is both a Special Area of Conservation (SAC) – Site Code 000199, designated under the Habitats Directive and a Special Protection Area (SPA) – Site Code 004016, designated under the Birds Directive. The Mayne Estuary is 'Under Review' with respect to the Water Framework Directive risk assessment and is considered of 'Extremely High' importance.

### Surface Water

Surface Water arising from this proposed development falls into three catchments, the largest of which (Catchment No. 1) flows into a regional constructed wetland and from there outfalls, via 2no. 375mm dia. pipes complete with tideflex non return valves, into the estuary. This regional wetland

and outfall structure were constructed as part of an earlier phase (1B). Surface Water arising in the remaining two catchments flows via SuDS Devices / Ponds into ditches / existing drainage network.

The proposed surface water drainage system for this development has been designed in accordance with a sustainable drainage strategy (ref; The SuDS Manual, CIRIA 753 and Fingal County Council's Green/Blue Infrastructure for Developments Guidance Note) i.e. the provision of source, site and regional controls and in line with a treatment train approach where all surface water runoff will pass through a minimum of three devices.

### **Flood Risk**

A flood risk assessment of the proposed development has been carried out in accordance with 'The Planning System and Flood Risk Management Guidelines'.

The proposed development and surrounding environs lie outside the 0.1% Annual Exceedance Probability for both fluvial and coastal events and thus are considered to be located in Flood Zone C i.e. the probability of flooding from rivers and the sea is low, less than 1 in 1000.

This type of development is classified as 'Highly Vulnerable' which is considered appropriate for areas located in Flood Zone C and therefore a justification test is not required.

The exception to the above, is the rising main, which runs through the 0.1% AEP Fluvial Event south of the Moyne Road. This is a sealed pipe thus not at risk to water ingress.

Building floor levels for this development range from +4.85m to +9.60m above ordnance datum which exceeds the 0.1% AEP coastal flood level of +4.28mOD under the HEFS scenario together with a 0.25m freeboard i.e. +4.53mOD.

### **Foul**

The Portmarnock South Lands lie within the North Fringe Sewer catchment, which in turn discharges to the Ringsend Wastewater Treatment Plant, which has been undergoing upgrade works to eventually raise its capacity to 2.4 million population equivalent in 2025.

The greater Portmarnock foul network discharges to an existing pumping station located adjacent to Portmarnock Bridge and from there the effluent is pumped via a rising main along the Coast Road to a high point and then flows by gravity to the Mayne Bridge Pumping Station which in turn pumps to the North Fringe Sewer.

Uisce Éireann have submitted a planning application (07/2021) to Fingal County Council to construct a new Portmarnock Pumping Station proximate to the existing Portmarnock Pumping Station and whilst it was granted permission in August 2022, it was subsequently appealed to An Bord Pleanála, who granted permission in June 2024. This decision has been challenged and currently awaits judicial review.

As part of earlier developments within the subject lands, a temporary pumping station (St. Marnock's Temporary Pumping Station), including storage was constructed adjacent to Station Road, which lifts the flows from these developments and discharges to the gravity sewer in Coast Road, which in turn outfalls directly (i.e. bypassing the at capacity existing Portmarnock Bridge Pumping Station) into the Mayne Bridge Pumping Station.

Following discussions with Uisce Éireann in respect of the Phase 1D development, it was agreed to upgrade the above temporary pumping station to interim status through the following works, namely;

- Maintain current discharge rate and provide additional operational storage in excess of that normally provided for emergencies (24-hour storage).
- Provide telemetry and PLC upgrades to all 3 pumping stations i.e. . Existing Portmarnock Bridge Pumping Station, Mayne Bridge Pumping Station and St. Marnocks Interim Pumping Station and provide Uisce Éireann with a managed system.

- Additional works including; new wet well, new welfare building, new storage tank, lifting gantry, wash down hose reel, valve chambers, assisted lift hatches, outdoor lighting, pump isolation cabinet, hardstanding, telemetry, flowmeter, level sensors, controls, interlock and fencing.

The above works have been carried out as part of the Phase 1D development, currently under construction, and the same approach was considered acceptable for Phase 1E, granted permission in December 2024.

However, unlike the previous phases (1D and 1E), Uisce Éireann in response to pre-connection enquiry noted that the Mayne Bridge Pumping Station is out of capacity and cannot cater for any additional load. Uisce Éireann went on to recommend two options, namely wait for the new Portmarnock Bridge Pumping Station, albeit they could not commit to a date for their delivery of same or construct a rising main from the Interim Pumping Station all the way to the North Fringe Sewer.

It is the latter option that forms part of this proposed development i.e. the construction of a temporary rising main c1.7km long, to serve this phase and previous development phases (1A to 1E inclusive) from the Interim Pumping Station to the North Fringe Sewer to the south, crossing both Moyne Road and Mayne River, including upgrading of interim pumping station and storage as required.

Ultimately this interim pumping station and temporary rising main will be de-commissioned and all foul flows from the subject lands will be re-directed by gravity to the proposed new Uisce Éireann Portmarnock Bridge Pumping Station.

### Assessment

The proposed development was assessed for both the construction and operation stages with potential impacts identified as *'Increase in Sediment Concentration'*, *'Accidental Spills and / or Leaks'* and *'Spillages Arising from Concreting Operations'* for the former and *'Flooding'*, *'Accidental Spills and / or Leaks'* and *'Emergency Foul Overflows and/or Leaks'* for the latter.

All of these potential impacts were assessed as *negligible*, with the exception of works associated with the rising main in proximity to Mayne River, which were assessed as *small adverse* prior to mitigation measures and reducing to negligible post implementation of mitigation measures.

A Construction Environmental Plan has been prepared for this application and will be implemented for the construction of this proposed development. It includes best practice measures to minimise or reduce the risk of pollution events arising from the works.

## 2.10 Climate (Air Quality) (Chapter 9)

AWN Consulting Limited has been commissioned to conduct an assessment of the likely impact on air quality associated with the proposed residential development at Portmarnock South 1F, Co. Dublin.

### Baseline Environment

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

### Potential Effects of the Proposed Development

#### Construction Phase

An assessment of the potential dust effects due to the construction phase of the proposed development was carried out based on the UK Institute for Air Quality Management 2024 guidance document '*Guidance on the Assessment of Dust from Demolition and Construction*'. This established the sensitivity of the area to effects from construction dust in terms of dust soiling of property and human health effects. The surrounding area was assessed as being of medium sensitivity to dust soiling, of low sensitivity to dust-related human health effects and of medium sensitivity to dust-related ecological effects.

The sensitivity of the area was combined with the dust emission magnitude for the site under four distinct categories: demolition, earthworks, construction and trackout (movement of vehicles) to determine the mitigation measures necessary to avoid significant dust effects. It was determined that there is a medium risk of dust related effects associated with the proposed development. In the absence of mitigation there is the potential for a **direct, short-term, negative** and **slight** effect on air quality, which is an overall **not significant** effect in EIA terms.

In addition, construction phase traffic emissions have the potential to impact air quality, particularly due to the increase in the number of HGVs accessing the site. Construction stage traffic did not meet the scoping criteria for a detailed modelling assessment outlined in Transport Infrastructure Ireland's 2022 guidance document '*Air Quality Assessment of Specified Infrastructure Projects – PE-ENV-01106*'. As a result, a detailed air assessment of construction stage traffic emissions has been scoped out and the construction stage traffic emissions will have a **direct, short-term, neutral** and **imperceptible** effect on air quality, which is an overall **not significant** effect in EIA terms.

#### Operational Phase

Operational phase traffic has the potential to impact air quality due to vehicle exhaust emissions because of the increased number of vehicles accessing the site. The change in traffic associated with the operational phase of the proposed development did not meet the PE-ENV-01106 criteria requiring a detailed air dispersion modelling assessment. Therefore, it can be determined that during the operational phase, the proposed development will have a **direct, long-term, neutral, imperceptible** effect on air quality, which is an overall **not significant** effect in EIA terms.

### Mitigation and Residual Effects (Post-Mitigation)

#### Construction Phase

Detailed dust mitigation measures are outlined within Section 9.6 of Chapter 9 to ensure that no significant nuisance due to construction dust emissions occurs at nearby sensitive receptors. Once these best practice mitigation measures, derived from the Institute for Air Quality Management 2024 guidance '*Guidance on the Assessment of Dust from Demolition and Construction*' as well as other relevant dust management guidance, are implemented the effect on air quality during the construction of the proposed development are considered **direct, short-term, negative** and

*imperceptible*, which is overall **not significant** in EIA terms, posing no nuisance at nearby sensitive receptors (such as local residences).

#### Operational Phase

No site-specific mitigation measures are proposed for the operational phase. The effect on air quality has been assessed as **direct, long-term, negative, imperceptible** effect on air quality, which is an overall **not significant** effect in EIA terms.

### **Cumulative Effect of the Proposed Development**

#### Construction Phase

There is the potential for cumulative effects to air quality should the construction phase of the proposed development coincide with that of other developments within 500 m of the site. A review of proposed/permitted developments in the vicinity of the site was undertaken and relevant developments with the potential for cumulative effects were identified.

There is at most a medium risk of dust effects associated with the proposed development. The dust mitigation measures outlined in Section 9.6 of Chapter 9 will be applied during the construction phase which will avoid significant cumulative effects on air quality. With appropriate mitigation measures in place, the predicted cumulative effect on air quality associated with the construction phase of the proposed development and the permitted cumulative developments are deemed **direct, short-term, negative** and **imperceptible** effect on air quality, which is an overall **not significant** effect in EIA terms.

#### Operational Phase

The cumulative operational phase effect on air quality associated with the proposed development is predicted to be **direct, long-term, neutral, imperceptible** effect on air quality, which is an overall **not significant** effect in EIA terms.

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

## **2.11 Climate (Climate Change) (Chapter 10)**

AWN Consulting Limited has been commissioned to assess the likely impact on climate associated with the proposed residential development at Portmarnock South Phase 1F, Co. Dublin.

#### Baseline Environment

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 53.75 Mt CO<sub>2</sub>e in 2024. EPA projections indicate that Ireland has used 82.5% of the 295 Mt CO<sub>2</sub>e Carbon Budget for the five-year period 2021-2025. Further reduction measures are required to stay within the budget requirements.

#### Potential Impacts of the Proposed Development

The potential impacts on climate have been assessed in two distinct ways; a greenhouse gas assessment (GHGA) and a climate change risk assessment (CCRA). The GHGA quantifies the GHG emissions from a project over its lifetime and compares these emissions to relevant carbon budgets, targets and policy to contextualise magnitude. The CCRA considers a projects vulnerability to climate change and identifies adaptation measures to increase project resilience.

#### *Greenhouse Gas Assessment*

GHG emissions associated with the proposed development are predicted to be a small fraction of Ireland's Industrial sector or Residential Buildings sector 2030 emissions ceilings. The proposed development has been designed to reduce the impact on climate during construction and once the development is operational. At a minimum these include the Nearly Zero Energy Building (NZEB) compliance and targeting a Building Energy Ratio (BER) in line with the NZEB requirements.

The changes in traffic volumes associated with the operational phase of the development were not substantial enough to meet the assessment criteria requiring a detailed climate modelling assessment, as per Transport Infrastructure Ireland guidance 'PE-ENV-01104: Climate Guidance for National Roads, Light Rail and Rural Cycleways (Offline & Greenways) – Overarching Technical Document' (TII, 2022).

Several sustainability measures have been incorporated into the design of the development to ensure impacts to climate are reduced. Once mitigation measures are put in place, the effect of the proposed development in relation to GHG emissions is not considered significant.

#### *Climate Change Risk Assessment*

A CCRA was conducted to consider the vulnerability of the proposed development to climate change, as per the TII 2022 PE-ENV-01104 guidance. This involves an analysis of the sensitivity and exposure of the development to future climate hazards which together provide a measure of vulnerability. The hazards assessed included flooding (coastal, pluvial, fluvial); extreme heat; extreme cold; drought; extreme wind; lightning; hail; fog; wildfire and landslides. The proposed development is predicted to have at most low vulnerabilities to the various climate hazards. Therefore, climate change risk is not considered significant.

Overall, no significant impacts to climate are predicted during the construction or operational phases of the proposed development.

## **2.12 Climate (Sunlight & Daylight) (Chapter 11)**

Chapter 11 (Sunlight Daylight) outlines analysis of the impact of the proposed development on lands at Portmarnock, Co. Dublin on sunlight access in the surrounding area.

This analysis was undertaken in accordance with industry best practice guidelines for sunlight in the BRE publication "Site Layout Planning for Daylight and Sunlight – A guide to good Practice (Third Edition, 2022): BRE209".

The analysis indicates that the construction of the proposed Portmarnock Phase 1F Residential development will result in no change in sunlight or daylight access within neighbouring existing buildings and external amenity spaces. The potential impact of the proposed development on sunlight access within its receiving environment surrounding the application site is, therefore, likely to be imperceptible.

Given that the potential for development to result in impacts on sunlight access diminishes with distance, it is the finding of IN2's analysis the proposed development will have no undue adverse impact on sunlight or daylight access within the wider area surrounding the application site.

## **2.13 Air (Noise & Vibration) (Chapter 12)**

The existing noise climate has been surveyed during both daytime and night-time periods. Prevailing noise levels were found to be primarily due to overhead aircraft movements.

The potential noise & vibration impact on the nearest noise sensitive locations were assessed for the short-term construction phase and the longer term impact of the operational phase once the scheme is in operation.

During the construction phase it is predicted that a negative, slight to significant and temporary impact will occur at receptor location N1, which is identified as the Portmarnock Phase 1D and 1E development, and at receptor location N5, identified as dwellings on Station Road, with significant impacts occurring when works take place at the closest boundary to the receptor. All other identified noise sensitive locations at greater distances from the Proposed Development will experience a negative, slight and short-term effect.

During the operational phase, the key potential noise sources including increased road traffic and mechanical plant noise emissions have been assessed and commented upon. The assessment has indicated that none of these will increase the existing noise climate sufficiently so as to be likely to

cause a disturbance. Noise levels during the operation of the proposed scheme is predicted to nominally remain unchanged when compared to the existing scenario and are all within the recommended noise criterion for day and night-time periods.

In line with current best practice, a detailed inward noise impact assessment on the proposed residential units within the development has also been completed. Based on the recommended guidance, i.e. Professional Guidance on Planning & Noise (ProPG), the assessment provides sound insulation specifications for glazing and ventilation systems to reduce internal noise levels to within the guidance values. It should be noted that the calculated glazing and ventilation specifications are preliminary and are intended to form the basis for noise mitigation at the detailed design stage. The overriding requirement is that the internal noise criteria is met, and there are a number of combinations of glazing and ventilation systems that will achieve this. Consequently, the specifications may be subject to change as the project progresses.

## **2.14 Landscape & Visual Impact Assessment (Chapter 13)**

This chapter of the Environmental Impact Assessment Report (EIAR) provides an assessment of the likely effects of the Proposed Development (Phase 1F) at St. Marnock's Bay, Portmarnock South (known as Portmarnock Phase 1F) on the landscape and visual aspects of the environment.

The Landscape and Visual Impact Assessment includes a series of Photomontages prepared from the surrounding areas and included in Appendix 13.1 of the EIAR.

The assessment was carried out by Thomas Burns, B.Agr.Sc. (Landscape), Dip. EIA Mgmt.; Ad Dip. En. & Plan. Law; MILI, MIELA. Thomas is a Landscape Architect, Environmental Planner and Partner with Brady Shipman Martin, environmental, landscape and planning consultants.

### **Assessment Methodology**

#### **Study Area**

The study area includes the proposal site and the wider lands within the Portmarnock South area and the surrounding landscape context, especially along the coast and over Baldoyle Bay to the east and southeast.

The proposed development represents the sixth phase of development on these lands, with previous phases 1A, 1B, 1C complete and occupied, and permitted Phases 1D and 1E under construction. Development on the lands has progressed in accordance with the Portmarnock South Local Area Plan (LAP) and Fingal Development Plan. The LAP set the overall framework for development and for environmental protection for the lands, and while now expired, proposed development continues to adhere to the key principles of the established framework.

The landscape and visual assessment has been prepared with reference to the EPA Guidelines on EIAR (EPA 2022) and the Guidelines for Landscape and Visual Assessment (Landscape Institute and IEMA 2013).

In classifying the significance of effects the magnitude of change is measured against the sensitivity of the landscape / view based on the guidance in the EPA Draft Guidelines and presented in Figure 3.4 of the EPA Guidelines.

#### **Receiving Environment**

The Proposed Development comprises a sixth phase of development (Phase 1F) at St. Marnock's Bay located off Station Road, Portmarnock South in County Dublin. Existing development on the overall lands has been guided by the Portmarnock South Local Area Plan (now expired), which identifies lands for residential development, lands for wider open space provision (including for connectivity to lands within Baldoyle / Stapolin Local Area Plan further south), and lands for ecological and landscape mitigation and protection areas. These principles are reiterated in Objective CSO66 of the current Fingal Development Plan 2023-2029.



The Phase 1F lands at St. Marnock's Bay are located within the north-eastern area of the residential zoned lands in the Fingal Development Plan (as per the lapsed Portmarnock South LAP). The lands within Portmarnock South area run south from Station Road to Moyne Road and east from the Dublin-Belfast Railway to the R106 Coast Road adjoining Baldoyle Estuary.

The Phase 1F site is located immediately east of the Phase 1B development and northeast of the Phase 1D and 1E lands. As such, the site is increasingly enclosed by emerging residential development to the west and south but retains an open aspect to the north – towards Portmarnock – and east/southeast over the ecological / landscape buffer open space to Baldoyle Bay and Portmarnock Peninsula with the Irish Sea, Ireland's Eye and Howth Head in the background.

Along with previous phases of development within St. Marnock's Bay, there are 5no. existing houses located immediately north of Phase 1F that front the R106 Coast Road / Station Road Junction and a further 3no. houses located c.50m east of Phase 1F, front the R106 Coast Road from where they overlook Baldoyle Bay.

The site itself comprises unmanaged former arable lands with some areas used for site compound and temporary storage of soil material. There are no trees or field boundaries within the Site. However, the wider area is undergoing significant on-going change with emerging residential development – both established and under construction – to the immediate west and southwest of the Site. As such, construction-related activities, including earthworks, soil movement and storage, building works and construction traffic movements are all prominent in the vicinity of the Site.

In landscape terms, the boundary hedgerows along the railway and internally along the Portmarnock / Maynetown townland boundary are prominent landscape features to the west of the Site, as are longer range views where available, east and south over Baldoyle to the Irish Sea, Howth and to the Dublin Mountains.

The site of a recorded monument – an 'enclosure' (DU015-055) is located to the southeast of the Proposed Development and while the feature is currently enclosed by palisade fencing no features of the archaeological significance are visible on the surface / ground. Natural regeneration of willow is evident within the palisade fenced area.

The wider landscape is notably more open to the northeast, east and southeast approaching the coastal corridor of Coast Road / Baldoyle Estuary, where there are panoramic views extending eastwards and southeast towards Lambay, Ireland's Eye, and Howth and long-range background views south to the Dublin Mountains.

As with Phases 1A to 1E, the proposed Phase 1F development has been designed and laid out in accordance with the overall framework and principles as established for the lands in the now lapsed Portmarnock South LAP.

The wider area is undergoing significant on-going change with emerging residential development – both established and under construction – to the immediate west and south of the Site. As such, construction-related activities, including earthworks, soil movement and storage, building works and construction traffic movements are all prominent in the vicinity of the Site.

## **Characteristics of the Proposed Development**

### **Proposed Development**

The Proposed Phase 1F Development builds upon and extends the approach to delivery of residential development and associated open space and amenity as established / emerging under previous Phases of development (1A, 1B, 1C, 1D & 1E).

### **Construction Stage**

The Construction Phase of the Proposed Development will see the continuation of existing construction works at Phase 1D and 1E across the Phase 1F lands to the east and north. This will involve: -

- Temporary fencing for security and for protection of hedgerows / tree-lines outside of the site but in close proximity (e.g. the townland boundary hedgerow).
- Provision of a temporary Site compound.
- Topsoil stripping and temporary storage for re-use.
- Subsoil excavation and removal from Site.
- Excavation / installation works associated with the new (temporary) rising main.
- Grading and preparation of the Site for construction works.
- Construction of roads, houses, installation of services, etc.
- Landscape works to open spaces – including ‘Recorded Monument DU015-055’.

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### Operational Stage

The Operational Phase of the Proposed Development will see delivery of a sixth phase of residential development and an expansion of the emerging residential community at St. Marnock's Bay in accordance with the approach and principles established in previous phases of development.

In effect the Operational Phase of Phase 1F will complete the vast majority of development on the residential zoned lands and deliver further key open spaces in the form of the Record Monument open space and completion of the ‘Monument Way’, and inter-monumental route.

The Operational Phase of the Proposed Development will involve: -

- Establishment of an extended residential development, with extended roads, roadside lighting and an emerging community.
- Access to the Inter-monumental Route open space, and to an expanded open network of open space.

### Mitigation Measures (Ameliorative, Remedial or Reductive Measures)

#### Construction Stage

While no significant landscape or visual effects will arise, mitigation measures are proposed to avoid, reduce or remediate, wherever possible any potential negative landscape and visual effects of the Construction Phase of the Proposed Development. In addition to the operation and management of all construction works in accordance to best methodologies and practice, that following measures are proposed for the mitigation of landscape / townscape and visual impacts: -

- Construction works will be guided by a Construction Environmental Management Plan (CEMP), which shall provide the environmental management framework to be adhered to and monitored during the pre-commencement and construction phases of the Proposed Development. The CEMP will incorporate all of the mitigating principles required to ensure that the work is carried out in a way that minimises the potential for environmental impacts to occur.
- Construction compounds will not be located within the root protection area of trees or hedgerows to be retained and will be enclosed by solid hoarding. The compound areas will be fully decommissioned and reinstated at the end of the construction phase.
- The Phase 1F construction Site will be fully enclosed and secured. Construction traffic accessing the Site will follow agreed routes and public roads will be maintained in a clean and safe manner.

Mitigation of landscape and visual impacts during the construction phase is focused on management of construction activities and providing for a degree of visual screening of particular aspects of the works (e.g. the construction compounds).

### Operational Stage

The Operational Phase of the Proposed Development will not give rise to significant landscape and visual effects and therefore measures for the mitigation of significant landscape and visual impacts are not required. Nevertheless, the Proposed Development includes a number of measures which will ensure its integration within its setting. The Proposed Development includes: -

- Provision of a high-quality of architectural design, character and finish for the proposed buildings and development.
- Provision of significant areas of new and connected open space and park with play facilities as amenity and recreation for the new communities.
- Planting of new trees along streetscapes and within open spaces. Species selected will be appropriate to the street environment and to the characteristics of this coastal edge location.
- Provision of a high-quality of design and finish for landscape areas within the Proposed Scheme.
- Landscape areas will be maintained for twelve months during which any defective or dead material will be replaced.
- Open Spaces, including that incorporating Record Monument DU015-055 and 'Monumental Way' will be offered for taking-in-charge by FCC.

### Impact of the Proposed Development

#### Construction Stage

Any development will give rise to some degree of landscape and visual impact. The greatest impacts tend to occur during the temporary / short-term construction phase when site disturbance associated with stripping of soils and movement of machinery may be unfamiliar and draws particular visual attention to the Site.

No other trees or hedgerows are impacted.

The Phase 1F Site is limited in extent and in part has been previously disturbed by construction and related works associated with Phase 1D & 1E. Construction works will be most visible from properties within the adjoining Phases 1B, 1C, 1D & 1E at St. Marnock's Bay and from the adjoining ecological and landscape buffer lands to the north and east, as well as from more distant viewpoints on coast road and east of Baldoyle Bay. Views of similar construction activity is already a feature of these views. The degree of landscape and visual change associated with the construction phase is Medium.

The sensitivity of the receiving Phase 1F landscape environment is assessed as being Low and the Magnitude of Change is considered Medium. The landscape impact of the Construction Phase is assessed as being of Slight to Moderate Negative Short-term Significance.

The sensitivity of the receiving visual environment and the Magnitude of Change are considered Medium. The visual impact of the Construction Phase is assessed as being of Moderate Negative Short-term Significance.

#### Operational Stage

On completion of the construction phase, a new development will establish its presence on the environmental, physical and visual character of its environs. In this regard landscape and visual impacts must also be considered within the context of existing, planned, emerging and likely future development proposals for the area. The Phase 1F development is being provided in accordance with the approach and principles established in the Portmarnock South LAP. The LAP provided a detailed analysis of the area and provides a development framework for the lands, identifying development zones, as well as open spaces, green networks, connections and linkages, etc. The previous phases (1A,

1B, 1C, 1D & 1E) and the current Proposed Development (Phase 1F) are provided in accordance with these requirements, which are also included in Objective CSO66 in the Fingal Development Plan 2023-2029.

It is considered that the proposed development is appropriately sited, designed and laid out so as to be capable of being fully integrated into the new emerging residential character of the wider area. This integration is underpinned by the architectural approach and by the landscape masterplan and landscape strategy that acknowledges and builds on the requirements of the former LAP, the Development Plan and the emerging character and finishes established in Phases 1A to 1E.

Therefore, the Proposed Development will have a positive impact on the emerging local character, and will not adversely impact on sensitive landscape characteristics, *e.g.* coastal setting and character or views to and from this landscape. It is considered that the operational phase of the development will make a continued positive contribution to the emerging residential community of the wider area. The degree of landscape change associated with the construction phase is Medium.

The sensitivity of the receiving Phase 1F landscape environment is assessed as being Low and the Magnitude of Change is considered Medium. The landscape impact of the Operation Phase is assessed as being of Moderate Positive Medium to Long-term Significance.

## 2.15 Material Assets (Transportation) (Chapter 14)

Egis Engineering Ireland carried out a Traffic and Transport assessment of the likely potential impacts on the surrounding road network associated with the proposed residential development at Portmarnock South Phase 1F in the townlands of Maynetown and Portmarnock, Co. Dublin.

The characteristics of the potential and predicted impacts during the construction and operational phases of the development were assessed and evaluated.

Resources relied on include: -

- 2025 traffic surveys at the junctions most likely to be impacted by the Proposed Development.
- TII Traffic and Transport Assessment Guidelines - issued in May 2014.
- TII Project Appraisal Guidelines for National Roads "Unit 5.3 Travel Demand Projections" - issued in October 2021.
- Design Manual for Urban Roads and Streets (DMURS) – issued in May 2019.
- South Fingal Transport Study (2019).
- Portmarnock South Local Area Plan (Adopted and Extended) July 2013 published by Fingal County Council, but noting this has now expired.
- Fingal Development Plan 2023-2029.

### Receiving Environment

A vehicle turning movement survey was undertaken on Wednesday, 14<sup>th</sup> May 2025 at the six junctions surrounding the development as listed below. Junction 1 to Junction 4 were selected for assessment as they are considered the junctions most likely to be affected by traffic associated with the proposed development. The vehicle turning movement survey at Junction 5 and Junction 6, which provide direct access to the occupied Phases 1A, 1B & 1C developments and 58 occupied units of Phase 1D development, has been used to determine the distribution of trip generation for this Proposed Development onto the surrounding road network.

- **Junction 1:** Station Road / Drumnigh Road R124 (to the northwest).
- **Junction 2:** Strand Road / Coast Road / Station Road (to the northeast).
- **Junction 3:** Moyne Road / Coast Road (to the southeast).
- **Junction 4:** Hole in the Wall Road / Moyne Road Junction (to the southwest).

- **Junction 5:** Station Road / The Avenue (western access at Station Road).
- **Junction 6:** Station Road / the Avenue (eastern access at Station).

The DART rail line lies immediately to the west of the site and provides DART and suburban rail services to Malahide and the city centre from Portmarnock Station which is located to the north-west of the site. Other DART stations are also located nearby at Malahide to the north and Clongriffin to the south.

The nearest Dublin Bus scheduled services operate generally to and from Dublin city centre and along the Strand Road to Portmarnock and Malahide. These include the following services: -

- 32x From Malahide towards UCD Belfield.
- 42D Portmarnock to DCU.
- 42N Portmarnock to Dublin City South.
- 102 Sutton Station to Dublin Airport.
- 102A Sutton to Swords.
- 102C Sutton to Balgriffin.
- 102T Sutton to Swords.

The following BusConnects Routes currently service the study area:

- H2 Malahide to Lower Abbey Street.

The Portmarnock area has greatly benefited from the recent opening of the Portmarnock Greenway. The greenway is a walking and cycling route connecting Baldoyle to Portmarnock. It forms part of a vital first phase of the overall Sutton to Malahide Greenway Scheme. The Greenway will eventually connect to the wide shared surface running along the north of the development providing a direct walking and cycling link to Portmarnock Dart station.

### Proposed Development

The internal road network of the Proposed Development is designed in accordance with the principles of the Design Manual for Urban Roads and Streets (DMURS) with a network of segregated combined cycle and footpath routes through the development including along the Primary Link road, the Townland boundaries and a circular route which will connect homes to the DART station, commercial area and open space as well as a network of footpaths that will permeate the residential area and provide a high degree of accessibility to local facilities and to bus and rail transport.

Currently, earlier phases of the development are accessed via two entrances off Station Road, this will continue to be the case for the Proposed Development. The Development (Phase 1D) will include the construction of a new access road and junction onto Moyne Road serving the Proposed Phase 1F Development, the existing Phases 1A, 1B & 1C, the permitted Phase 1D under construction, the granted permission (Phase 1E) and future Phase 1G – infill phase.

It is proposed to provide 267 no. car parking spaces for the Proposed Development, which equals the Fingal Development Plan of maximum requirement.

It is also proposed to provide 178 no. bicycle parking spaces for apartment and duplex units within the site. This equals the minimum bicycle parking requirement as required in the Fingal Development Plan. Additionally, 537 bicycle parking spaces will be provided for mid-terrace houses, which equals the Fingal Development Plan minimum requirement. For non-mid terrace houses (i.e. end of terrace, semi-detached or detached houses), they contain paths connecting between the public footpath / carriageway in front of the house and rear gardens. Thus, bicycle parking for non-mid terrace houses will be accommodated in each rear garden space.

Junction 1 to Junction 4 were analysed for the 2025 Baseline Year, 2028 Opening Year and 2043 Design Horizon Year using trip generation derived from the Trip Rate Information Computer System (TRICS) database with trip distribution modelled on current observed distribution and a conservative modal split of 46% for car drivers since the location of the proposed development is considered to have a Public Transport Accessibility Level (PTAL) of 4. Expected trip generation for the proposed Phase 1F

residential development was estimated to be in total 30 trips inbound and 77 trips outbound in the morning peak hour, and 70 trips inbound and 34 trips outbound in the evening peak hour.

### Assessment

The Proposed Development was assessed for both the construction and operation stages.

In 2025 baseline year, Junction 2 and Junction 4 are operating within the normal design threshold in the morning and evening peak hours. For Junction 3, it is operating within the normal design threshold in the evening peak hour and is operating slightly over the normal design threshold (but still less than its theoretical capacity of 1.0) in the morning peak hour. For Junction 1, it is operating over the normal design threshold in the morning and evening peak hours resulting in substantial queues and delays for motorists.

In the 2028 opening year (Phase 1F development), Junction 2 to Junction 4 will operate within the normal design threshold except the following scenarios:

- Junction 2 in the evening peak hour in 2028 for the “with” Phase 1F development scenario (but still not greater than its theoretical capacity of 1.0), resulting in queues and delays for motorists, and
- Junction 3 in the morning peak hour in 2028 for both the “without” development and “with” Phase 1F development scenarios (but still not greater than its theoretical capacity of 1.0), resulting in queues and delays for motorists.

For Junction 1, it will exceed the normal design threshold in both the morning and evening peak hours in 2028 for both the “without” development and “with” Phase 1F development scenarios, resulting in substantial queues and delays for motorists. The analysis concurs with the observations made in the South Fingal Transport Study (2012) referenced previously in the now expired Portmarnock South LAP. The study concludes that this junction will undergo capacity issues in the future and recommended that an upgrade of the junction is explored.

In 2043 design year (Phase 1F Development and Entire Development), Junction 4 will operate within the normal design threshold in both the morning and evening peak hours in 2043 for both the “without” development and “with” Phase 1F/entire development scenarios.

Junction 1 to Junction 3 will exceed the normal design threshold in both the morning and evening peak hours in 2043 for both the “without” development and “with” Phase 1F/entire development scenarios, but the following junctions and scenarios with RFC/DOS not greater than its theoretical capacity of 1.0:

- Junction 2 in the morning peak hour in 2043 for both the “without” development and “with” Phase 1F/entire development scenarios,
- Junction 2 in the evening peak hour in 2043 for the “without” development scenario, and
- Junction 3 in the evening peak hour in 2043 for both the “without” development and “with” Phase 1F/entire development scenarios.

The analysis also indicates that the impact on those concerned junctions will be mainly due to regular background traffic growth but not the Proposed Development per se. Therefore, traffic from the proposed Phase 1F development will not cause a significant impact on Junctions 1 to 4 inclusive for the 2028 Opening Year and the 2043 Design Year.

Construction traffic generated during the Construction Phase tends to be outside of peak hours. The traffic generated by the Construction Phase will not be higher than the peak hour predicted volumes for the Operational Phase. Therefore, impact of construction traffic is assessed as negligible.

It is proposed to promote a Mobility Management Plan i.e. a long-term management strategy which identifies a package of measures to encourage residents and visitors to use sustainable forms of transport such as walking, cycling and public transport and therefore to reduce dependency on private car single-occupancy use.

The study concludes that from a traffic and road safety perspective, the proposed Phase 1F residential development as described herein, does not pose any significant residual impacts on the surrounding network and on this basis, should be granted planning permission.

## 2.16 Material Assets (Waste) (Chapter 15)

AWN Consulting Ltd. undertook the waste management assessment. The receiving environment is largely defined by Fingal County Council (FCC) as the local authority responsible for setting and administering waste management activities in the area through regional and development zone specific policies and regulations.

There will be waste materials generated from site clearance works, excavations, construction of the new development and from the operation of the new development. There is currently no waste generated at the proposed development site.

### Potential Impacts and Mitigation Measures of the Proposed Development

#### Construction Phase

During the construction phase the mismanagement of waste, including the inadequate storage of waste, inadequate handling of hazardous waste, the use of inappropriate or insufficient segregation techniques, and the use of non-permitted waste contractors, would likely lead to negative impacts such as waste unnecessarily being diverted to landfill, litter pollution which may lead to vermin, runoff pollution from waste, fly tipping and illegal dumping of waste. In the absence of mitigation, the effect on the local and regional environment is likely to be **long-term, significant and negative**.

#### Operational Phase

The potential impacts on the environment during the operational phase of the proposed development would be caused by improper, or lack of waste management. In the absence of mitigation, the effect on the local and regional environment is likely to be **long-term, significant and negative**.

### Residual Effect of the Proposed Development

#### Construction Phase

During the construction phase, typical construction waste materials will be generated which will be source segregated on-site into appropriate skips/containers, within designated waste storage areas and removed from site by suitably permitted waste contractors as required, to authorised waste facilities, by appropriately licensed waste contractors. While the accurate keeping of waste records will be undertaken. All waste leaving the site will be recorded and copies of relevant documentation maintained.

This will all be overseen by the main contractor, who will appoint a construction phase Resource Manager to ensure effective management of waste during the excavation and construction works. All construction staff will be provided with training regarding the waste management procedures on site.

A carefully planned approach to waste management and adherence to the site-specific Resource and Waste Management Plan (Appendix 16.1) and Chapter 16 during the construction phase, this will ensure that the effect on the environment will be **short-term, neutral and imperceptible**.

#### Operational Phase

During the operational phase, waste will be generated by the residents. Dedicated waste storage areas (WSAs) have been allocated throughout the development for the use of residents. The WSAs have been appropriately sized to accommodate the estimated waste arisings from the development. The WSAs 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 and included as part of this submission as Appendix 16.2. This OWMP 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, glass, mixed non-recyclables, garden/green waste, batteries, waste electrical equipment, printer cartridges, chemicals, lightbulbs, textiles, cooking oil, furniture and abandoned bicycles. This Plan/Strategy will be supplemented, as required, with any new information on waste segregation, storage, reuse and recycling initiatives that are subsequently introduced.

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**.

### Cumulative Impact of the Proposed Development

#### Construction Phase

There are existing residential and commercial developments close by, along with the multiple permissions remaining in place in the area. In a worst-case scenario, multiple developments in the area could be developed concurrently or overlap in the construction phase. Due to the high number of waste contractors in the FCC region, as provided from the National Waste Collection Permit Office and the EPA, there would be sufficient contractors available to handle waste generated from a large number of these sites simultaneously, if required. Similar waste materials would be generated by all of the developments.

Other developments in the area will be required to manage waste in compliance with national and local legislation, policies and plans which will mitigate against any potential cumulative effects associated with waste generation and waste management. As such the cumulative effect will be **short-term, imperceptible** and **neutral**.

#### Operational Phase

There are existing residential and commercial developments close by, along with the multiple permissions remaining in place. All of the current and potential developments will generate similar waste types during their operational phases. Authorised waste contractors will be required to collect waste materials segregated, at a minimum, into recyclables, organic waste and non-recyclables. An increased density of development in the area is likely improve the efficiencies of waste collections in the area.

Other developments in the area will be required to manage waste in compliance with national and local legislation, policies and plans which will mitigate any potential cumulative impacts associated with waste generation and waste management. As such the cumulative effect will be a **long-term, imperceptible** and **neutral**.

## 2.17 Material Assets (Utilities) (Chapter 16)

The Material Assets (Utilities Chapter) examined the impact that the Proposed Development would have on the existing utility services in the vicinity of the Proposed Development. Watermains, electrical and communication networks were considered.

It is proposed to connect the Portmarnock 1D development to the existing watermain network constructed as part of previous developments within the Portmarnock South lands which are ultimately fed via the 450mm extension from the North Fringe Watermain.

A new connection will be made to the existing Medium Voltage below ground network and Eir & Virgin Media network at the boundary of the site and distributed throughout the Proposed Development as required.

The impact of the Operational Phase of the proposed development on the watermain supply network would be the requirement of a watermain supply capacity of 78,570 l/day with a peak consumption demand of 5.68 l/s. Irish Water have confirmed the existing network has sufficient capacity to meet

this additional demand as confirmed in the received Irish Water Confirmation of Feasibility (February 2024).

The impact of the Operational Phase of the proposed development on the power supply network would be the requirement for an Electrical Diversified Load of 1,400 KVA which will be split over up to 4 No. ESB sub-stations located through-out the scheme.

The proposed residential development will not result in any significant impact on the existing utility services in the vicinity of the development.

## 2.18 Cultural Heritage (Archaeological & Architectural) (Chapter 17)

This cultural heritage chapter assesses and describes the archaeological, cultural and architectural heritage of the lands at Phase 1F at Portmarnock South. The chapter provides an archaeological summary of the recent findings as a result of several test excavations and geophysical surveys undertaken on Phase 1F lands as well as investigations and archaeological monitoring which have been undertaken across the wider site for previous phases of works (Phase 1A, 1B, 1C, 1D and 1E 2016-present).

The lands are being developed on a phased basis in accordance with the Portmarnock LAP (2013). To date, Phases 1A – 1D have been completed and Phase 1E is currently under development and the archaeological investigations are now complete. As a result of these phases of development, three multi-phased ditched enclosures (dating to the late Iron Age and early medieval periods) have been excavated as well as two areas of Bronze Age activity comprising a waterhole and a trough, both associated with burnt mound activity. Medieval activity associated with a previously excavated medieval settlement has also been excavated (Licence No's. 16E0101, 16E0613, 18E0016 and 19E0303). The final excavation reports relating to the former licences have been submitted to the statutory authorities. In addition to the excavations, earth moving activity and the topsoil stripping of the lands have been archaeologically monitored for Phases 1A, 1B, 1C, 1D and 1E.

### Key Findings

There are six recorded archaeological monuments located within the Phase 1F lands, with two additional zones of notification extending into the area. The monuments located within Phase 1F lands include an excavated prehistoric burnt mound (DU015-157) revealed as a result of a geophysical survey and test excavation and an excavated medieval settlement (SMR DU015-136001/002/003 and SMR DU015-154). The final archaeological monument within this phase of development is an enclosure (RMP DU015-055) in Maynetown townland.

This large scale, below ground ditched enclosure was detected through aerial photography (1999) and geophysical survey (Sheil et al 2000; Licence 00R0037), and verified by test excavation (Wallace 2000; Moriarty 2009a; Licence 00E0732, 08E0376). Additional geophysical survey and archaeological testing at the monument in 2022 confirmed its location and extent (McLoughlin 2023; Leigh 2022; Licence 22E0509, 22R0112). This site is to be preserved in-situ in a public open space and a conservation and management plan for this site accompanies this application.

The landscaping strategy designed by Brady Shipman and Martin has been designed to protect the subsurface remains while reflecting the character and extent of the site within the appearance of the open space and provide public visibility and interpretation of the archaeological remains. This site is currently fenced off from the development and this fence shall be retained during the construction of Phase 1F in order to protect the below ground remains.

Archaeological testing established that human remains survive as little as 0.40m below the present surface. Protective measures will comprise a geotextile layer over the existing ground level, above which a further protective layer of between 0.30-0.80m as necessary will support the play structures located in the buffer zone to the south and southwest of the monument. No upright supports will penetrate the geotextile or the subsurface archaeological features as sufficient infill will be introduced. The planting regime will reflect the outline of the below ground monument through planting of feature tall grasses, shrubs, gravel surrounds and differentiated paving. The ditch will be mounded to protect

the area and create a sense of enclosure, with a feature entrance area on the east in keeping with the subsurface entrance to the monument.

Numerous archaeological investigations have been undertaken across the wider Portmarnock development since 2000 (see section 17.5.4 of Chapter 17). As Phase 1F is the last area within the overall Portmarnock lands to be developed, there has been considerable disturbance in these lands previously related to pipelines, spoil storage, haul roads and compound areas. Ground reduction related to these activities have been monitored under multiple licences. This is also the case for the route of the rising main, which has already been archaeologically monitored within the Phase 1F lands, and part of which has been geophysically surveyed and tested in relation to other developments.

Archaeological testing took place around and at the enclosure (RMP DU015-055). The purpose of the testing was to investigate the area surrounding the enclosure in advance of planning for Phases 1E and 1F to see if there were any associated archaeological features, and to investigate both the enclosure ditch and a pit within the interior of the enclosure with the aim of gathering information which would assist in the interpretation and future presentation of the site. The archaeological testing followed discussions with the National Monuments Service and Fingal County Council in relation to the preservation of the site. Should planning permission be granted, it is recommended that the linear ditches and associated features to the northeast of the enclosure in the vicinity of T2 and T3 be fully excavated under licence, in advance of development (Figure 17.6). This will entail the full archaeological excavation of an area measuring approximately 40m SW-NE x 30m NW-SE under licence to the Department of Housing, Local Government and Heritage (DHLGH).

The development at Portmarnock South Phase 1F has been planned with careful consideration of the present cultural heritage resources. Through comprehensive investigation, preservation measures and co-ordination with the design team and heritage authorities, the development ensures the identification and protection of valuable archaeological sites through preservation in situ and preservation by record while allowing for the development of a sustainable housing.

The in-situ preservation of the below ground enclosure (RMP DU015-055) and upstanding mound (in Phase 1B) offers a unique opportunity to showcase Portmarnock's heritage in the final development.

It is further recommended that topsoil removal and earthmoving activities during the site preparation stage and the construction stages of the project, will be archaeologically monitored by a suitably qualified archaeologist. In the event of the discovery of archaeological remains, consultation will take place with the Heritage Officer for Fingal County Council and the National Monuments Service as to the extent of preservation by record (excavation) to take place.

All works will be carried out under licence to the statutory authorities and will be agreed in advance of taking place with the Heritage Officer in Fingal County Council and the National Monuments Service of the DHLGH.

## 2.19 Risk Management (Chapter 18)

This assessment describes the Proposed Development in respect of its potential vulnerability to major accidents / disasters. It also considers the potential for the development to give rise to major accidents / disasters.

The scope and methodology of this assessment is based on the understanding that the Proposed Development will be designed, built and operated in line with best international current practice. As such, major accidents resulting from the Proposed Development would be very unlikely.

A risk analysis-based methodology that covers the identification, likelihood and consequence of major accidents and / or disasters has been used for this assessment. There are no Seveso sites in the vicinity of the site.

No potential scenarios during the Construction Phase were identified as requiring further assessment

The scenarios with the highest risk score for a major accident and / or disaster were the 'Collision of Aircraft' or an 'Incident at nearby Train Station' (both scored 5 in terms of 'Risk Score'). These were identified as being 'extremely unlikely' to occur, but which would have 'catastrophic' consequences should it do so. This indicated a 'low risk scenario'.

The Global Terrorism Index (GTI) is a comprehensive study analysing the impact of terrorism for 163no. countries and which covers 99.7 per cent of the world's population. In 2023, Ireland ranked as the 88th country most impacted by terrorism of the 163no. countries. Whilst the National Risk Assessment 2023 has identified the risk to Ireland from both domestic and international terrorism, there are no similar 'recorded incidents or anecdotal evidence' of attacks of this magnitude in Ireland. No mitigation is put forward specifically to deal with major accidents, however the mitigation proposed in other EIAR chapters, along with the CEMP will collectively mitigate the risk of major accidents and disasters.

## **2.20 Summary of Mitigation Measures (Chapter 19)**

This chapter provides a summary of all the mitigation and monitoring measures proposed throughout the EIAR document for ease of reference for the consent authority and all other interested parties.

## **2.21 Summary of Residual Impacts (Chapter 20)**

This chapter provides a summary of all the residual impacts identified throughout the EIAR document for ease of reference for the consent authority and all other interested parties.

## **2.22 Summary of Cumulative Impacts & Interactions (Chapter 21)**

This chapter identifies the principal interactions between the potential impacts of the environmental factors identified in chapters 5 – 18 inclusive, and as well as cumulative impacts arising based on best scientific knowledge.

All potential interactions have been addressed as required throughout the EIAR. During each stage of the assessment contributors have liaised with each other (where relevant) to ensure that all such potential interactions have been addressed.