

Strategic Environmental Assessment

PORTMARNOCK SOUTH Local Area Plan

SEA Statement

JULY 2013



SEA Statement of the Portmarnock South Local Area Plan 2013-2019 SEA

SEA STATEMENT
On THE
Portmarnock South LOCAL AREA PLAN
2013-2019

STRATEGIC ENVIRONMENTAL ASSESSMENT

Fingal County Council
July 2013

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SECTION 1 Introduction

1.1 Purpose of Report

This is the Strategic Environmental Assessment (SEA) Statement of the Portmarnock South Local Area Plan (LAP) 2013-2019. The main purpose of the SEA Statement is to indicate how environmental considerations, the views of consultees and the recommendations of the Environmental Report have been incorporated in the decision making process in the formulation of the LAP.

1.2 Legislative Context

The requirement to carry out a Strategic Environmental Assessment stems from the Strategic Environmental Assessment Directive (2001/42/EC) which states:

'The objective of this Directive is to provide for a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans.....with a view to promoting sustainable development.....'

The SEA Directive was transposed into Irish Law through the European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 (Statutory Instrument Number (SI No. 435 of 2004) and the Planning and Development (Strategic Environmental Assessment) Regulations 2004 (SI No. 436 of 2004). Both sets of Regulations became operational on 21 July 2004. The Regulations have been amended by the European Communities (Environmental Assessment of Certain Plans and Programmes) (Amendment) Regulations 2011 (SI No. 200 of 2011) and the Planning and Development (Strategic Environmental Assessment) (Amendment) Regulations 2011 (SI No. 201 of 2011).

The SEA Directive and the instruments transposing it into Irish Law require that after the making of a Local Area Plan, the plan or programme making authority is required to make a Statement available to the public and Article 9 of the SEA Directive (2001/42/EC) provides that the environmental authorities and the public must be provided with an SEA Statement as soon as is practical after a plan is adopted.

The SEA Statement is required to include information summarising:

- a) How environmental considerations have been integrated into the plan,
- b) How the environmental report, submissions and observations made on the Draft Plan and Environmental Report, and any transboundary consultations have been taken into account during the preparation of the plan.
- c) The reasons for choosing the plan, as adopted, in the light of the other reasonable alternatives and
- d) The measures selected to monitor the significant environmental effects of implementation of the plan.

1.3 Implications of the SEA for the Plan-Making Process

While the requirement for a mandatory Strategic Environmental Assessment for Local Area Plans applies only to areas in which the population is in excess of 5,000 persons, Fingal County Council was of the opinion that development in the Portmarnock South LAP area was likely to potentially have significant effects on the environment.

Through all stages of the process, the environmental assessment of the Local Area Plan was fully integrated into the decision making process including the formulation of policies, objectives, development scenarios and alternatives. The key stages in preparing the LAP included the pre draft public consultation (Issues Paper), the Draft LAP publication and display and the final

adopted LAP. Parallel and integrated into these stages were the SEA Screening, SEA Scoping Issues, Environmental Report, SEA Addendum and the SEA Statement.

Consultation with the environmental authorities was undertaken at the early stages of the process (the pre draft Issues Paper Consultation and SEA Scoping Report). The Environmental Report was prepared in parallel with the production of the Draft LAP and was submitted to the Elected Members alongside the Draft Plan. The purpose of the report was to provide an understanding of the likely environmental consequences of various alternative scenarios and of the policies and objectives contained within the LAP.

Submissions on the Environmental Report and the draft LAP were evaluated at each stage of the process in order to ascertain any further environmental consequences to those already identified. These evaluations were circulated with the Managers Reports to Council Members on the proposed amendments to the Plan. The Elected Members were required by the legislation to take into account the Environmental Report before the adoption of the Plan.

On the making of the Portmarnock South LAP, this SEA Statement - which is available alongside the LAP - was prepared.

1.4 Production of the SEA

The Strategic Environmental Assessment of the Portmarnock South Local Area Plan 2013-2019 was undertaken internally in the Council by a separate SEA team who closely liaised with the LAP Team.

SECTION 2 How Environmental Considerations were integrated into the Local Area Plan

2.1 Introduction

Environmental considerations were integrated into the LAP process at a number of stages in the SEA i.e. the Scoping stage, at the Environmental Report stage and following the submissions and observations from the Environmental Authorities and the public.

In addition, the environmental sensitivities of the LAP area were communicated to the Plan-preparation team on a regular basis from the outset of the Plan preparation process. This process helped identify those areas with the most limited carrying capacity and helped ensure that either future growth was diverted away from these areas or that appropriate mitigation measures were integrated into the Plan.

The Local Area Plan was also subject to Appropriate Assessment Screening under the Habitats Directive (92/43/EEC) at both the draft and amendment stage.

2.2 Scoping Report

The scoping exercise was undertaken February/March 2012 and an SEA Scoping Issues Paper was circulated to the designated Environmental Authorities and interested parties for their input on 6th February 2012 for a four week consultation period (until 9th March 2011). This sought to:

- identify the significant environmental issues to be taken into consideration in the making of the new Plan
- form a basis for consultation with the statutory bodies as designated under the terms of Article 13A (4) of the Planning and Development Regulations 2001 (as inserted by article 7 of S.I. No. 436 of 2004 and as amended by S.I. 201 of 2011) namely:
 - Environmental Protection Agency (EPA);
 - Department of Environment, Community and Local Government (DECLG);
 - Department of Communications, Energy and Natural Resources (DCENR);
 - Dept of Agriculture, Food and the Marine (DAFM);
 - Department of Arts, Heritage and the Gaeltacht (DAHG);
 - Adjoining Planning Authorities.
- identify and consult on the environmental objectives, which will be used to ensure the integration of the environment into the preparation of the Portmarnock South LAP and which will also be used to identify the likely significant effects on the environment;
- identify the baseline information and data gaps and
- identify reasonable alternative strategies of achieving the strategic goals of the Plan.

The SEA Scoping Issues Paper sets out a description of the Portmarnock South LAP area and a baseline of environmental data (grouped under the environmental themes/receptors – biodiversity, flora and fauna, population and human health, soil and landscape, water, air, climate, material assets and cultural heritage including architectural and archaeological).

During the consultation period four submissions were received; one each from the Environmental Protection Agency (EPA), Inland Fisheries Ireland, ESB and Dublin Airport Authority.

The most important strategic environmental issues in the Portmarnock South LAP area arising from the scoping exercise and from the consultations were identified as follows:

- It should be ensured that the adjacent designated sites are protected, including in particular Baldoye Bay (SAC/SPA/pNHA), Irelands Eye (SAC/SPA/pNHA), Howth Head (SAC/pNHA), Howth Head Coast (SPA), North Dublin Bay (SAC/pNHA).
- There is a need to ensure compliance with the Water Framework Directive and in this context, the Eastern River Basin Management Plan and associated Programme of

Measures should be incorporated into the Plan to ensure the protection / improvement of water quality in the Mayne River and entering Baldoyle Bay (SPA & NHA).

- It should be ensured that a preliminary flood risk assessment is carried out in accordance with the Flood Risk Management Guidelines 2009 (OPW/DoEHLG). Zoning and development of lands within the Plan area should take into account the risk of flooding. In this regard consideration should be given to incorporating any recommendations which may be forthcoming, in future versions of the Plan when upon completion of the CFRAMS.
- The Pollution Reduction Programme and associated Characterisation Report for the Malahide Designated Shellfish Area should be taken into account in the Policies and Objectives of the Plan.
- The Plan should include clear policies and objective for the protection of groundwater resources and associated habitats and species.
- The Plan should promote the protection of waters within and adjacent to the Plan area that are used for bathing. In this regard, your attention is brought to a number of good status beaches (including Velvet Strand, Dollymount Strand and Malahide Beach), which should be taken into consideration
- The potential impact on habitats and species of ecological importance should also be addressed as appropriate, from pressures impacting on water quality and quantity.
- The Plan should include clear Objectives to conserve and protect all designated sites within and adjacent to the Plan area (including the habitats and/or species for which they have been selected, or which they support), and should also promote the protection of undesignated sites and local biodiversity features.
- The Plan should include a specific Policy/Objective for promoting the maintenance and, as appropriate, achievement of favourable conservation status of habitats and species, in association with the NPWS and other stakeholders.
- As the Sluice River is salmonid, it is vital to note in the Local Area Plan that salmonid waters constraints apply to any development in this area. Efforts should be made to improve water quality in the River Mayne and to address the down stream blockage in order to help return these waters to a salmonid system.
- There is a need for the LAP to contain policies/objectives to ensure the provision of adequate and appropriate critical service infrastructure in advance of permission for development being granted.
- There is a need to incorporate green infrastructure in the development of the Plan area, in accordance with the policies/objectives of the County Development Plan.
- The potential for cumulative/in – combination effects resulting from this Plan and other relevant on-going Plans and Programmes within and adjacent to the Plan area should also be assessed. In particular the potential of cumulative/in-combination effects arising from the potential development arising from LAPs being prepared for lands at Baldoyle-Stapolin (to the south of the subject site) and for lands at the North Fringe/Clongriffin, to the west of the site, in the administrative area of Dublin City Council.

The findings of the SEA were communicated to the Plan making team on an ongoing basis from the outset in order to allow for their integration into the Portmarnock South LAP thus minimising the potential for significant negative environmental effects arising from implementation of the Plan.

2.3 Environmental Report

The Environmental Report was prepared alongside the LAP and investigated, described and evaluated the effects of implementing the LAP on the receiving environment. The report also assesses and identifies development alternatives for the LAP area, and identifies the most sustainable development strategy.

Overall, the preparation of the Environmental Report influenced the formulation of the Local Area Plan as follows;

1. It raised the awareness of the existing level of environmental information in the LAP area, the sensitive nature of the EU Designated Site which are located within and adjoining the LAP lands and also the EU and National legislation governing the environment.
2. It facilitated the introduction of the concept of Green Infrastructure into the LAP and the need to provide suitable habitats for both native and visiting species to the area.
3. It emphasised the necessity of maintaining and improving the quality of surface water from the site that will be entering the Mayne River and ultimately Baldoyle Bay.
4. It provided a transparent assessment of each proposed policy and objective which allowed further fine-tuning to reduce negative environmental impacts

The detail of these influences is expanded on below.

2.2.1 Baseline

The Environmental Report contains a range of baseline information in the Portmarnock South LAP area on key environmental headings such as:

1. Biodiversity (Flora and Fauna)
2. Population and Human Health
3. Landscape/Geology/Soil
4. Water Quality
5. Air
6. Climatic Factors
7. Material and Cultural Assets

Baseline information was gathered through a combination of existing reports and surveys, site visits and new monitoring to inform the environmental report. Fingal County Council in association with Dublin City Council undertook an Investigative Monitoring Programme for the River Mayne Catchment as part of the LAP process. The purpose of this investigative monitoring was to obtain up to date information on the physicochemical status of the river and to attempt to identify the significant pressures on the river.

2.2.3 Key Environmental Issues Identified

The key environmental issues in the Portmarnock South LAP area were identified in the Environmental Report as:

- LAP lands include Murrough Marsh which is within Baldoyle Bay cSAC. LAP could result in an alteration of baseline conditions which may impact upon the qualifying interests of the cSAC. A potential alteration in the surface water, ground water, pollution, flooding regime, flood defence, recreational uses, increase in population and a potential alteration of erosion rates all have potential alone or in combination to result in changes to baseline conditions on which qualifying interests depend.
- Loss of habitat within the SAC due to the presence of alteration of Tidal Influences.
- The threat of pollution is a potential threat to flora and fauna within the LAP lands and the surrounding area. Baldoyle Bay is an estuarine system.
- Compliance with the Water Framework Directive and the Groundwater Directive. Any changes in local water catchments leading to changes in water quality could affect condition of the habitats.
- Loss and/or alteration of habitat due to development pressures along the Mayne and surrounding lands.
- Disturbance to wildlife and habitats, and particularly birds feed habitats and roosting grounds due to increased recreational pressure. Increased development pressures and

an increase in population associated with the Portmarnock South and Baldoyle-Stapolin LAPs may impact upon the designated sites.

- Need to establish a Biodiversity Network, along the hedgerows (in particular along historic hedgerows) streams, springs and ditches. Include, at a minimum all hedgerows or stream sections of moderate value.
- The need to prioritise development where alternative modes of public transport are available or planned and the need to reduce private car based movements resulting in reduced emissions.
- Make provision for adequate cycle and walking routes within the LAP land both in the interim period and in the longer term.
- In terms of climate change, prioritising the development of LAP areas adjoining the Clongriffin train station and the use of Sustainable Urban Drainage Systems (SUDS) in the LAP lands as primary strategies in the plan.
- The provision of adequate sewage infrastructure was also highlighted as an environmental concern. LAP is part of the North Fringe Sewer catchment which ultimately discharges to the Regional Waste Water Treatment Plant at Ringsend via the North Fringe Sewer. A major new trunk sewer (the North Fringe Sewer) was constructed in 2004 to serve most of the North Fringe Lands. It was designed to allow development occur in this area and is the main outlet for foul flows for the area under study. The lands within the LAP area are all part of the original design catchment for the North Fringe Sewer, and hence, at a strategic level, there is adequate capacity to facilitate however, in the short term there is the potential for a waste water treatment shortfall in the area if the upgrade of the Waste Water Treatment Plant at Ringsend does not keep pace with development.

2.2.3 Strategic Environmental Objectives

The SEOs are measures against which the environmental effects of the Portmarnock South Local Area Plan can be tested in order to help identify areas in which significant adverse impacts are likely to occur, if unmitigated. The SEOs are objectives derived from international, E.U. and National strategies, policies, directives and plans that are relevant to the LAP. The SEOs are linked to indicators and targets which facilitate monitoring of the implementation of both the LAP and the County Development Plan (the SEA Monitoring System initiated by the Council following the adoption of the County Development Plan is also suitable for use at the LAP level) and are as follows:

Strategic Environmental Objective and SEA Topic Area	Detailed Assessment Criteria
<p>Objective 1 Biodiversity Flora and Fauna (BFF) Protect and where appropriate, enhance biodiversity, particularly protected areas and protected species</p>	<ul style="list-style-type: none"> • Provide effective protection of international, national and local "protected areas" and "rare and distinctive species" • Provide effective protection of biodiversity in the wider landscape including species and habitats protected by law • Contribute to the Fingal Biodiversity Action Plan objectives
<p>Objective 2 Population, Human Health (PHH) Provide high-quality residential, working and recreational environments and sustainable</p>	<ul style="list-style-type: none"> • Reduce population exposure to high levels of noise, vibration and air pollution • Increase modal shift to public transport • Contribute to the co-ordination of land use and transportation

Strategic Environmental Objective and SEA Topic Area (cont'd)	Detailed Assessment Criteria (cont'd)
transport	<ul style="list-style-type: none"> • Improve access to recreation opportunities • Contribute to the mitigation of floods and droughts
<p>Objective 3 Soil (S) Protect the function and quality of the soil resource in Fingal</p>	<ul style="list-style-type: none"> • Re-use of brownfield lands, rather than developing Greenfield lands • Safeguard soil and geological quality, quantity and function
<p>Objective 4 Water (W) Protect and where necessary improve water quality and the management of watercourses and groundwater to comply with the standards of the Water Framework Directive objectives and measures and all water, habitat and fisheries based legislation including the Urban Wastewater Treatment Directive, the Freshwater Fish Directive, the Shellfish Waters Directive, etc.</p>	<ul style="list-style-type: none"> • Improve water quality in rivers, lakes, estuaries and groundwater • Promote sustainable drainage practices to improve water quality and flow and to enhance opportunities for biodiversity • Reduce the impacts from point source pollution, diffuse source pollution, abstraction and flow regulation and morphological alterations • Ensure flow regulation is appropriate • Prevent deterioration of water bodies from morphological alterations • Promote sustainable use of water and water conservation
<p>Objective 5 Air Quality and Climatic Factors (AQ/C) Contribute to mitigation of, and adaptation to, climate change and air quality issues</p>	<ul style="list-style-type: none"> • Reduce levels of air pollution • Minimise emissions of greenhouse gases • Reduce waste of energy, and maximise use of renewable energy sources • Ensure that all new housing is energy efficient • Ensure flood protection and management • Restrict development in flood plains • Reduce vulnerability to the effects of climate change
<p>Objective 6 Cultural Heritage (CH) Protect and, where appropriate, enhance the character, diversity and special qualities of cultural, architectural and archaeological, heritage</p>	<ul style="list-style-type: none"> • Improve protection for areas of archaeological potential and for undiscovered archaeology • Promote a better understanding of sensitive environments and human interaction with those environments

Strategic Environmental Objective and SEA Topic Area (cont'd)	Detailed Assessment Criteria (cont'd)
<p>Objective 7 Landscape (LH) Protect and, where appropriate, enhance the character, diversity and special qualities of landscapes in Fingal</p>	<ul style="list-style-type: none"> • Improve protection for landscapes and seascapes of recognised quality • Ensure that landscape character is considered in the development process • Maintain clear urban/rural distinctions • Enhance provision of, and access to, green space in urban areas
<p>Objective 8 Material Assets (MA) Make best use of existing infrastructure and promote the sustainable development of new infrastructure</p>	<ul style="list-style-type: none"> • Improve availability and accessibility of commercially provided facilities and public services • Protect Greenfield land and promote the use of brownfield sites • Increase local employment opportunities • Improve efficiencies of transport, energy and communication infrastructure • Ensure sufficient waste water treatment infrastructure • Provide drinking water supply and water conservation measures • Reduce the generation of waste and adopt a sustainable approach to waste management

2.2.4 Environmental Assessment

Policies and objectives of the Draft LAP were formulated and informed by the SEA, AA and FRA processes in addition to the feedback from the environmental agencies, the general public and key stakeholders throughout the Issues Paper consultation and Scoping the Issues for the SEA. In addition, the collaboration across different departments within the Council through workshops ensured that the draft LAP was informed with the environmental priorities of each department. The policies and objectives of the LAP were assessed against the SEOs at a number of stages during the process. This allowed for early identification and mitigation of environmental conflicts. This resulted in amendments to existing objectives, the addition of environmentally beneficial objectives and the removal of objectives with significant negative effects. Local Area Plan policies were also assessed for **long term/permanent positive impacts, short term positive impacts, long term/permanent negative impacts, short term negative impacts, potential for both positive and negative impacts in the long and short term, insignificant impact** and **no relationship** as required under the SEA Directive.

Assessment of each Local Area Plan policies and objectives is contained within the Environmental Report (April 2013). The objectives proposed by the elected members along with the Manager's Recommendations were also assessed before they were incorporated into the Plan. The following represents a summary of the evaluation of the objectives within the Plan under each of the SEOs:

Population and Human Health

The Local Area Plan residential [RA] zoned lands will facilitate approx. 1,200 residential units based on a net development area of c. 28.2 hectares at a density of c.42 units per hectare which accords with airport safety zone criteria. The anticipated new population is c. 3,360 persons.

There is a strong emphasis in the Plan for a high quality living environment, through the provision of a hierarchical network of open space provision, high quality and sustainable design, local services and local retail and business opportunities, good public transport networks and connections to it and the maintenance of the rich estuarine environment and its associated habitat. However, as the lands are located within the Outer Public Safety Zone of Dublin Airport, schools and childcare facilities are not permitted uses within the RA (residential) zoning of the LAP lands. Childcare and education facilities are also not permitted within the open space zoned lands, therefore these community uses are not proposed as part of this LAP. Such facilities exist and are proposed within the adjoining areas and are capable of accommodating the future educational needs of residents of the plan area.

The overall impact of the Plan on population and human health is considered to be beneficial and will ensure a good quality living environment.

Biodiversity, Flora and Fauna

Baldoyle Bay is covered by a number of national and international conservation designations due to the important habitats, species of birds, animals and plants that occur within the site. It is designated as a Special Protection Area (pSPA) for birds under the EU Birds Directive and is internationally important for Light-bellied Brent Geese and nationally important for a further 5 species. It is also a Special Area of Conservation (SAC) for its habitats under the EU Habitats Directive and a Ramsar site recognised as being a wetland of international importance. Nationally it is a proposed Natural Heritage Area and a statutory Nature Reserve. In formulating policies and objectives for the LAP, full regard was had to the EU Habitats and Birds Directives and national environmental legislation. An Appropriate Assessment of the LAP has been carried out as required by the Habitats Directive and informs the plan and a Natural Impact Report (NIR) accompanies the Plan.

The fundamental constraint in the preparation of the Portmarnock South LAP is how to mitigate the loss of the valuable feeding and roosting habitat acknowledged within the eastern section of the residentially zoned lands. In acknowledging and dealing with this issue, the LAP proposes the creation of attractive and suitable, alternative habitat for migratory birds to the south/east of the residential part of the Plan lands. In this way the Plan has sought to balance the needs and requirements of the environment with the residential zoning objective and resultant increased population and associated pressures on the surrounding sensitive environment. The green infrastructure strategy and Landscape Masterplan for the lands seek to ensure that the amenity of the regional Racecourse Park is available to the growing population while protecting the most sensitive elements of the lands by managing the lands appropriately. In particular, the Murrough Spit which is zoned High Amenity and located east of Coast Road and which is within Baldoyle SAC and SPA will be retained as a managed conservation area to protect estuarine birdlife. Other management measures will include practices to ensure grazed grass suitable for Brent geese as well as other practices to encourage biodiversity and maintenance of the existing species.

Within the residential areas there is a strong emphasis on retention of existing hedgerows and riparian strips and greening the remaining landscape through the provision of wide boulevards and local and pocket parks. These will be part of the 'stepping stone' and corridor approach to the green infrastructure strategy. There is also a strong emphasis on sustainable drainage, using best practice solutions which include attenuation ponds planted with appropriate vegetation to encourage waterfowl.

In the preparation of Portmarnock South and Baldoyle-Stapolin LAPs detailed plans have been drawn up for the ecological buffer zones in both areas with the intention that these will function as integrated areas, not only for open space and recreation but, critically, for the appropriate mitigation measures for migratory waterfowl habitat in both LAPs. These areas are to be laid out

and managed in a way that provides suitable alternative habitat for bird species likely to be displaced by residential development within the Plan lands. These ecological buffer zones will offer a variety of habitats including meadow and arable crops. This will ensure adequate roosting and feeding options are available to migratory birds. Farmland bird species also benefit from these habitats.

The overall effect of the Plan on biodiversity, fauna and flora will be beneficial.

Soil

Many of the changes to soil arise as a result of pressures from human activities. The main pressures on soil resources in Ireland include urbanisation and infrastructure development. A proposed EU Framework for Soil (2004/35/EC) states that, for the purposes of preserving the various functions of soil; sealing, the development of artificial surfaces on top of soil resources, should be limited. The proposed Directive suggests that this may be achieved through rehabilitating brownfield sites, thus reducing the depletion of greenfield sites.

While the preferred densities within the LAP will reduce future pressure for the development of greenfield lands by accommodating target populations within existing zoned lands. New residential, commercial and transportation developments and site preparation works will result in an extent of soil being sealed off across the site.

Water

Water Quality - While there are no significant watercourses running through the LAP lands the Mayne River runs to the south of the site and the Sluice River runs to the north. Both of these rivers discharge to Baldoyle Bay with the Mayne discharging at the junction of Mayne Road and Strand Road (R106) and the Sluice discharging via a culvert at Portmarnock Bridge.

The River Mayne is a reportable river under the Water Framework Directive and is currently identified as being of "poor status" while the catchment of the River Sluice to the north is identified as being of "good status" with both rivers having a Risk Status of 1a – At Risk.

In the Santry-Mayne-Sluice WMU the main problems identified were high nutrients, oxygen demand, low ecological rating and inferior habitat. The main causes can be attributed to wastewater and industrial discharges, due to misconnected foul sewers, combined sewer overflows and urban area pollution.

Surface Water - A SuDS Strategy for Portmarnock South, prepared by Waterman Moylans on behalf of the Council identifies various measures that may be employed throughout the development taking into account the existing surface water infrastructure that is in place across the site. The implementation of Sustainable Drainage Systems (SuDS) measures will ensure that surface water run-off will not be discharged directly into the groundwater system, thereby improving water quality, the potential for biodiversity and amenity.

Flooding - In accordance with the 'Planning Systems and Flood Risk Management Guidelines for Planning Authorities' (DoEHLG, 2009), the preparation of the LAP was the subject of a Strategic Flood Risk Assessment (SFRA). The SFRA includes the identification of a number of measures necessary to ensure flood risk is incorporated into the planning of the area and recommendations were made that development proposals for a number of areas within the plan boundary be the subject of site-specific flood risk assessment appropriate to the nature and scale of the development being proposed

The policies of the Plan will ensure that there is no dis-improvement in the status of the Mayne and Sluice Rivers and should help to improve their status. The implementation of SuDS strategies

will decrease the rate of surface water runoff, thereby reducing the potential for flooding, and its quality. The SuDS measures have the added benefit of increasing the potential for greater biodiversity and also for recreation and amenity. The impact of the Plan on water is considered to be beneficial.

Air Quality, Noise and Climatic Factors

Air Quality - The LAP lands are located within Zone A for the Dublin conurbation, as identified in the Air Quality Standards Regulations 2002, (S.I.271/2002), with the closest monitoring sites being located at Swords and Marino. The index is calculated based on the latest available measurements of PM10, sulphur dioxide, nitrogen dioxide and ozone. In October 2010, air quality in Zone A was reported as 'Good'.

There are three (3) sources of large scale industrial and agricultural activities monitored by the EPA. These are Integrated Pollution Prevention Control (IPPC) licenses, waste licenses and SEVESO licenses or sites. There are no licenses under the above categories present within the Portmarnock South LAP area.

Noise - Noise mapping as part of the Dublin Agglomeration Draft Action Plan indicated that traffic congestion and movement were the issues regarding noise pollution. The noise levels in the LAP area are likely to increase short-term during the construction period but they could also increase in the longer term with vehicular movement. The LAP seeks to promote sustainable transport through the use of public transport in the form of rail and bus, walking and cycling. Bus and rail are within 600m walking distance of the residential development while the village centre is at the foot of the railway station. Walking and cycling are encouraged in the Plan lands through good connectivity and permeability with cycle routes along the boulevards and through the parklands linking to Baldoyle village to the south and further extensions planned to link the development to Portmarnock Village and further north.

Reduction in private car movements will result in a reduction in emissions such as particle matter (PM10) and nitrogen dioxide (NOx) and in noise levels associated with private transport.

Climatic Factors - The main issues facing Fingal in relation to the development of the Portmarnock South LAP lands are climate change related to increased amounts of greenhouse gases, including CO² emissions, primarily from transport movements, and the danger posed by flooding events as sea levels rise and increased frequency and volume of rain events. Solutions require reductions in unsustainable transport movements, and the amelioration of potential flooding events.

The LAP promotes the use of sustainable transport and higher densities along the railway at the village centre and northern edge of the development. Increased densities will enable the improvement of public transport provision and timetabling. This will help to reduce CO² emissions. Increased densities will also ensure that efficient use is being made of land thus reducing the pressure for further development to accommodate the same population and reducing the potential impact of flooding and car dependent urban sprawl by less physical area of urban development. The use of the Sequential Test and the Justification Test for any areas prone to flooding, the carrying out of a Flood Risk Assessment and the use of Sustainable Urban Drainage Systems (SUDS) in the LAP lands will be primary strategies in the plan.

Any new urban development has the potential for a negative impact on climate change. Mitigation measures such as SuDS and those indicated in the paragraphs above will be necessary to offset the potential impacts. The LAP has incorporated these mitigation measures and it is considered that the impacts on air quality, noise and climatic factors will generally be insignificant or beneficial.

Cultural Heritage

Located within the northern and southern extremities of Plan lands are archaeologically important National Monuments, the Portmarnock Burial Mound [DU15:014] and Protected Structure Ref No. 475 and the Maynestown Enclosure site [DU015:055]. Test-excavation of the Maynestown Enclosure as part of a previous planning application of the lands identified it as early medieval in date.¹ Geophysical survey undertaken in 2008 also as part of a planning application on the revealed that that this monument is part of a much larger landscape with a further four enclosures identified subsurface in the immediate vicinity of the Maynestown monument within the open space lands to the south of the designated residential area².

The Portmarnock Mound (DU015-014) is a medieval burial mound and consists of an oblong shaped knoll 27m NS x 14mEW x3m high. These archaeological sites have been the subject of a sequence of progressive desk studies, surveys and on-site investigations as part of the previous application for the lands. Agreement was reached with the National Monuments Division of the DoEHLG to preserve these monuments in situ. A 20 metre reservation is required around both these monuments.

There are hedgerows on the Portmarnock South LAP lands which mark the boundary of the historic townland, and are of cultural-historic value.

Landscape

The Landscape Character Assessment for Fingal identifies Baldoyle Bay as being of an Estuary and Coastal Character Types which are categorised as having an exceptional value recognised by the EU designations (candidate Special Areas of Conservation and Special Protection Areas) that apply to each in addition to national designations such as proposed Natural Heritage Areas and Ramsar. The aesthetic quality of the estuary is also identified as outstanding while the Coastal Character Type is categorised as having exceptional landscape value. In terms of sensitivity both Character Types are identified as having a high sensitivity to development with particular parts of these areas having a low capacity to absorb new development.

In terms of the LAP there are protected views along the Coast Road affording attractive views of the Baldoyle Bay and Portmarnock peninsula to the east. The quality of views from within the subject lands is variable. The relative lack of visual enclosure and the topography combine to afford extensive views from the subject lands over the Baldoyle Bay, Ireland's Eye and Howth beyond.

In terms of topography the western and middle portion of the site forms an elevated plateau which slopes away towards Strand Road to the east and Mayne Road on the southern boundary. The eastern half of the plan area is highly visible when viewed from the shoreline of Baldoyle Bay and the Portmarnock Peninsula and enjoys panoramic views of the coast and its islands notably Lambay Island, Howth Head and Ireland's Eye. The east-west ridge just south of the residential development area is highly visible from Clongriffin and Stapolin development areas, Clongriffin Railway Station and the mound in Father Collins Park. St. Doolagh's is a notable built feature when looking westward from the Plan lands. From the southern slopes of the Plan lands, there are open panoramic views towards Baldoyle, Clongriffin and Howth to the southeast. Beyond the silhouette of Baldoyle and Clongriffin, the backdrop of the Dublin Mountains is visible from this location. The Plan lands are considered more visually sensitive than the lands further to the south and south-west where large contemporary developments at Baldoyle-Stapolin and Clongriffin have been constructed. These lands are located further back within the coastal compartment, on

¹ Moriarty C. 2009 Final report for archaeological excavations at Portmarnock Mound (DU015:014) and the Maynestown Enclosure (DU015:055), Co. Dublin 07E574

² Unpublished report Margaret Gowen & Company

lower elevations and therefore less visually sensitive than the Plan lands. The landscape character of the Plan lands is highly sensitive to change.

The LAP has taken account of the sensitive nature of the site through the identification of character areas. Development within the most visually sensitive character areas will be architecturally designed and finished appropriate to the sensitive coastal setting and its interface with the ecological buffer zone and Baldoyle Bay. Light contemporary structures with simple finishes such as smooth render and extensive glazing are envisaged allowing for maximum visual permeability to and from the Plan lands. Buildings shall be designed to ensure physical breaks between buildings to allow for glimpse views to and from Baldoyle Bay and the islands. No development shall occur within the view lines indicated on the plan map.

The impact on the Plan on the landscape will generally be positive with some negative impacts.

Material Assets

The material assets of the Plan lands include waste water and drinking water infrastructure, waste management facilities and transport infrastructure. The regional park itself is also a material asset but the impact of the Plan on it has been dealt with in the paragraphs above.

Waste water – At a strategic level, in the short term there is the potential for a waste water treatment shortfall in the area if the upgrade of the Waste Water Treatment Plant at Ringsend does not keep pace with development. The overloading of waste water treatment plants, low levels of treatment and discharge of outflow to water bodies at risk has significant potential to incur pollution. The Plan has included objectives to ensure that development is not granted which cannot be adequately treated for waste water. This will also be dealt with at planning application stage of each phase of development.

At a local level an existing foul water pumping station is located outside of the Plan lands close to Portmarnock Bridge to the north and serves the surrounding area. This is currently operating at capacity and site size does not allow for expansion of this facility. The most suitable location for a new pumping station identified is within the north/eastern section of the Plan lands within designated open space lands. An outfall and overflow is required for the pumping station. The overflow from the pump station is required in the case of pump failure. This overflow will connect to the proposed surface water outfall. This outfall requires a Foreshore License.

As there is limited available capacity in the existing Portmarnock Bridge Pump Station, it is a prerequisite for all development within the Plan lands that drainage infrastructure [Pump Station and outfall complete and commissioned] including the acquisition of a Foreshore License be provided before any development can proceed.

Water supply – There is adequate water supply to meet the needs of the LAP lands. Nonetheless, the need to conserve water is recognised in the LAP and policies are in place, such as rainwater harvesting, to ensure this.

Waste management - Fingal has a commitment under the Waste Management Plan 2005- 2010 to provide infrastructure for recycling, biological treatment and composting of waste as well as waste prevention and minimisation initiatives. The Council has four recycling centres which are located at Balleally Landfill; Estuary Recycling Centre, Swords; Coolmine Recycling Centre and Balbriggan Recycling Centre, and local bring banks around the County with the closest to the LAP lands being located in Sutton and Portmarnock. The LAP has included policies on waste management.

Transport infrastructure – The LAP includes provisions for the upgrade of the existing transport infrastructure and new infrastructure in the wider south Fingal area. These are on foot of a transport assessment which identified required infrastructure and phasing requirements. Section 11 of the LAP on Sequencing and Phasing ensures that transport infrastructure, along with other relevant infrastructure, is delivered in parallel with development. Within the Plan lands, cycleways and pedestrian paths are proposed to provide connectivity between different parts of the Plan lands, the existing train station and between the different settlements as part of the green infrastructure strategy.

2.2.5 Mitigation

The introduction of the concept of Green Infrastructure to the Portmarnock South LAP at the draft stage ensured the conservation and enhancement of biodiversity, the provision of accessible parks, open spaces and recreational facilities, the sustainable management of water, the maintenance of landscape character and the protection and enhancement of the architectural and archaeological heritage.

A series of mitigation measures were recommended in the Environmental Report for integration into the Local Area Plan and these are listed below. These have been included within the Plan as new policies or amendments to policies unless otherwise indicated.

Selected Mitigation Measures

Biodiversity and Green Infrastructure	Maintain qualifying interest habitats and species within the Baldoyle Bay SPA and SAC and other European sites where relevant at favourable conservation condition to ensure the ecological integrity of Baldoyle Bay and further ensure that the LAP lands continue to provide supporting function for the Qualifying Interest species (Objective C 1)
	Advance a green infrastructure strategy through the integration of a network of natural habitat and biodiversity supporting spaces, parkland for passive and active recreational uses, heritage features, sustainable surface water and flood risk management measures. (Objective GI 1)
	Protect existing trees, hedgerows, townland boundaries and watercourses which are of amenity, historic or biodiversity value and ensure that proper provision is made for their protection and management in future development proposals in accordance with the Green Infrastructure and Landscape Strategy. (Objective GI 9)
	Protect the integrity of existing townland hedgerows and watercourses for their biodiversity and amenity value including surface water management. To this end, ensure that no development, including clearance and storage of materials, takes place within a minimum distance of 10-15 metres measured from each bank of any river, stream or watercourse. (Objective GI 41)
Water Quality	Require all planning applications to submit details of compliance with the SuDs Strategy for the LAP which include proposals for the management of surface water within sites, and runoff rates from sites, protecting the water quality of Baldoyle Bay. (Objective WM2)
	Seek the maintenance of the Sluice River and rehabilitation of the Mayne River to good water status, it's restoration as a natural amenity and protection of the riparian corridor through the LAP area. (Objective WQ3)

Landscape	Future developments within the plan area shall have regard to the principles for development in coastal and estuarine character areas as set out in the Landscape Character Assessment of the Fingal Development Plan. (Objective GI 14)
	Ensure that the existing topography of the lands is incorporated into the design concept and layout with minimal variations to existing ground levels, in as far as is practicable, in development schemes. (Objective GI 17)
Transport and Climatic Factors	Ensure that any transport and movement proposals take full account of the sensitivities of the receiving environment including biodiversity features and the conservation objectives of EU designated sites. (Objective TM15)
	Promote the development of a pedestrian and cycle network of routes that incorporate existing natural features on the lands, connects with local amenities, parks, retail/community facilities and public transport facilities throughout the plan area and that is coherent, direct, safe and convenient. (Objective TM 1)
Flooding	Implement the provisions of the DoEHLG/OPW publication 'The Planning System and Flood Risk Management: Guidelines for Planning Authorities' 2009 or any superseding document in relation to flooding and flood risk management and facilitate flood management measures, as appropriate. (Objective FRM 1)
	Require all proposed developments within areas at risk of flooding to carry out a detailed Flood Risk Assessment in accordance with the DoECLG Guidelines on Flood Risk Management. (Objective FRM 2)

SECTION 3 Environmental Report and Submissions & Observations

3.1 Introduction

The following section details the significant issues which were raised prior to, during and after the preparation of the Draft Portmarnock South Local Area Plan and the accompanying Environmental Report and how these were incorporated into the Plan. The submissions include those from the initial scoping responses on environmental issues from the Statutory Authorities (February 2012), submissions on the Draft Plan and the Environmental Report (April 2013).

3.2 SEA Scoping Submissions

The scoping exercise was undertaken February/March 2012 and the Scoping Report was circulated to statutory consultees and interested parties for their input on 6th February 2012 for a four week consultation period (until 9th March 2012).

The most important strategic environmental issues in the Portmarnock South LAP area arising from the scoping exercise and from the consultations were identified as follows:

- It should be ensured that the adjacent designated sites are protected, including in particular Baldoyle Bay (SAC/SPA/pNHA), Irelands Eye (SAC/SPA/pNHA), Howth Head (SAC/pNHA), Howth Head Coast (SPA), North Dublin Bay (SAC/pNHA).
- There is a need to ensure compliance with the Water Framework Directive and in this context, the Eastern River Basin Management Plan and associated Programme of Measures should be incorporated into the Plan to ensure the protection / improvement of water quality in the Mayne River and entering Baldoyle Bay (SPA & NHA).
- It should be ensured that a preliminary flood risk assessment is carried out in accordance with the Flood Risk Management Guidelines 2009 (OPW/DoEHLG). Zoning and development of lands within the Plan area should take into account the risk of flooding. In this regard consideration should be given to incorporating any recommendations which may be forthcoming, in future versions of the Plan when upon completion of the CFRAMS.
- The Pollution Reduction Programme and associated Characterisation Report for the Malahide Designated Shellfish Area should be taken into account in the Policies and Objectives of the Plan.
- As the Sluice River is salmonid, it is vital to note in the Local Area Plan that salmonid waters constraints apply to any development in this area. Efforts should be made to improve water quality in the River Mayne and to address the down stream blockage in order to help return these waters to a salmonid system.
- There is a need for the LAP to contain policies/objectives to ensure the provision of adequate and appropriate critical service infrastructure in advance of permission for development being granted.
- There is a need to incorporate green infrastructure in the development of the Plan area, in accordance with the policies/objectives of the County Development Plan.
- The potential for cumulative/in – combination effects resulting from this Plan and other relevant on-going Plans and Programmes within and adjacent to the Plan area should also be assessed. In particular the potential of cumulative/in-combination effects arising from the potential development arising from LAPs being prepared for lands at Portmarnock South (to the north of the subject site) and for lands at the North Fringe/Clongriffin, to the west of the site, in the administrative area of Dublin City Council.

The findings of the SEA were communicated to the plan making team on an ongoing basis from the outset in order to allow for their integration into the Portmarnock South LAP thus minimising the potential for significant negative environmental effects arising from implementation of the Plan.

3.3 Submissions and Observations on the Draft Plan and Environmental Report

A number of submissions were made on the Draft Portmarnock South LAP and accompanying documents while they were on public display that made reference to the SEA Environmental Report. These issues contained within the submissions were responded to in a Manager's Report which was submitted to the Council for consideration. The submissions that made specific reference to the SEA are summarised below and the full Manager's Report is available.

Environmental Protection Agency (EPA)

Environmental Report/SEA Process

Where amendments to the Plan are proposed, these should be screened for likely significant effects in accordance with the criteria as set out in Schedule 2A of the SEA Regulations and should be subject to the same method of assessment applied in the "environmental assessment" of the Draft Plan.

Following the adoption of the Plan, an SEA Statement should be produced.

Response: Any amendments will be screened in accordance with the relevant regulations and an SEA Statement will be prepared following adoption of the LAP.

Environmental Objectives – Section 5

Consideration should be given to amending Objective 1 as set out in Section 5 Strategic Environmental Objectives of the Environmental Report to take into account key ecological corridors/linkages which may exist outside designated sites. The inclusion of Table 5.4 Strategic Environmental Objectives, Targets and Indicators is acknowledged.

Response: In the interest of clarity, key ecological corridors/linkages that exist outside designated sites are covered as part of a sub-objective of Biodiversity, Flora and Fauna - Objective 1 and therefore amendment is not considered necessary.

Assessment of Environmental Effects – Section 7

Clarification is required as to how cumulative effects have been taken into account in relation to the assessment of environmental effects.

Response: The comments in relation to the merits in further assessing the cumulative effects of the Plan are acknowledged and a method for doing this will be considered in future Environmental Reports. It should be noted that the cumulative impacts of Portmarnock South LAP were considered within the landscape strategy which provides key mitigation measures for biodiversity and in which the Baldoyle-Stapolin lands are a part. The traffic impact assessment also included the Baldoyle-Stapolin LAP lands in addition to the Clongriffin-Belmayne lands.

Mitigation Measures – Section 8

In outlining the Mitigation Measures within the LAP in Section 8 of the SEA, consideration should be given to including a summary table in this section outlining the key recommendations, associated policy/objectives or higher level plans/strategies responsible for protecting the vulnerabilities described in implementing the plan.

Clarification is required as to whether re-zoning/de-zoning of undeveloped lands at risk of significant flooding in the area, to more appropriate less vulnerable land uses have been considered as a specific mitigation measure.

Response: A summary table will be included as requested outlining the key recommendations, associated policy/objectives or higher level plans/strategies responsible for protecting the vulnerabilities described in implementing the plan.

No rezoning or de-zoning has occurred in the preparation of the Plan as a result of the Flood Risk Assessment.

Monitoring Measures – Section 9

In terms of Monitoring Measures and specifically in relation to Section 9.5 Frequency of Reporting, the up-dated environmental data available on the EPA website and collated as part of the SEA Scoping for the Plan should also be considered. The monitoring of both positive and negative effects, where they occur should also be considered.

Response: This is now considered and referred to in the SEA.

The Department of Arts, Heritage and the Gaeltacht

The approach taken in the LAP, SEA Environmental Report and the Natura Impact Statement where conservation objectives of the nearby Baldoyle Estuary and other nearby estuarine Natura 2000 sites, the Fingal Biodiversity Action Plan, the adjoining Baldoyle-Stapolin LAP and the findings of the Bird Survey commissioned by Fingal County Council on the lands surrounding the estuary were considered in the preparation of the LAP is welcomed.

The biodiversity, flora and fauna Strategic Environmental Objectives set out in the SEA are very comprehensive and the targets, indicators and source/responsibility relating to biodiversity are realistic.

Errors noted include the following:

The Habitats Directive appears to be missing from Table 3.1 of the SEA Environmental Report.

Response:

Table 3.1 of the SEA Environmental Report will be amended to include the Habitats Directive.

3.4 Environmental Report

The Environmental Report and the Draft LAP were placed on public display in April 2013. The SEA response to submissions on the Environmental Report which were made during the period of public display of the LAP and the Environmental Report was integrated into the Manager's Report circulated to Elected Members.

This proposed updates to the Environmental Report as a result of submissions, as detailed under Section 3.3. The Environmental Report was also updated in order to take account of changes which were made to the original, Draft LAP that was placed on public display. Members of the planning authority have taken into account the findings of all relevant SEA output during their consideration of the Draft LAP and before its adoption.

On making of the LAP, the original Environmental Report which had been placed on public display alongside the Draft LAP was updated to become a final Environmental Report which is consistent with the adopted LAP.

SECTION 4 Alternatives and the Plan

4.1 Introduction

One of the critical roles of the SEA was to facilitate an evaluation of the likely environmental consequences of a range of alternative scenarios for accommodating future growth within the Portmarnock South LAP lands. Alternative Scenarios for Portmarnock South were considered and these are described below.

4.2 Description of the Alternative Plan Scenarios

Alternative 1: Retain the layout of the 2006/2007 LAP and Masterplan with minor amendments to incorporate SuDS measures

This option would allow for minor amendments to the existing LAP to incorporate, insofar as is possible, new policies in relation to SuDS. The 2006 LAP and associated Masterplan provides for approximately 4,200 persons which equates with approximately 1013 (average household size 3.5 persons) houses and 436 apartments (average household size 1.5 persons). The Plan provides for a local distributor route that runs in an arc form through the eastern section of the LAP and incorporates a series of roundabouts, off this is a secondary distributor road and series of access road that will assist in the dispersal of traffic through the residential areas with the LAP lands. Pedestrian and cycle routes are mainly along the distributor and access roads through the development. The residential areas are divided into architectural character zones. The Masterplan provides for a more geometrical or formal layout cover in the central and western portions of the site and more informal areas along the eastern and southern edges of the site. Varying forms of open space are proposed within the residential area ranging from squares, crescents, circuses, lozenges and a village green. A local centre, incorporating a residential element, is located close to the train station in the northwestern corner of the site.

Current guidelines and policies suggest that the incorporation of SuDS measures should be frontloaded into the planning and design process. However, in acknowledging the work put into the existing LAP and Masterplan consideration was given to making relatively minor amendments to the original proposals to retrofit, insofar as is possible, new policies in relation to SuDS. This would involve retrofitting SuDS into the existing layout for example by trying to incorporate SuDS features into existing areas of open space where possible and including the use of tree pits, permeable paving, waterbutts, swales along roadside margins and attenuation areas where applicable. Similarly, it may now be necessary to leave watercourses that were previously proposed to be culverted open. These elements may, after detailed study, necessitate significant alterations to the layout of both the residential and open space within the development as provided for in the LAP and Masterplan. Given that there may need to be significant alterations to the existing layout it is likely that a complete reassessment of the layout of the overall development will be necessary. Importantly, it must be considered that, even if retrofitting can be undertaken within the existing and altered layout, it is unlikely that best practice standards could be attained.

Alternative 2: Retain the layout of the 2006/2007 LAP and Masterplan while trying to incorporate SuDS and Green Infrastructure measures

This option would be a mix of Alternatives 1 and 3 and would review the existing LAP in an attempt to make it better reflect the existing policies and guidelines in relation to Green Infrastructure, SuDs, Flood Risk Management and the objectives of the Fingal Development Plan 2011-2017. This would involve the removal of part of the existing vegetation and natural features of the site to accommodate sections of the development as provided for under the 2006 LAP and accompanying Masterplan 2007 while still attempting to retain key features on site.

The implementation of Green Infrastructure would for more sustainable modes of transport i.e. stronger cycle and pedestrian linkages while also opening up opportunities for open space along green corridors and maintaining the biodiversity of the site. This Alternative recognises that it will be necessary to make significant changes to the original layout and pattern of movement envisaged within the site while still attempting to retain as much of the original urban design principles and layout of the 2006/2007 LAP and Masterplan. Until this is undertaken in detailed design terms it would be difficult to determine the scale of the changes that would be required.

Alternative 3: Complete review of the LAP with a strong emphasis on Green Infrastructure

This option would involve a complete review of the underlying premises of the original LAP and would involve the development of the Portmarnock South LAP lands using the concept of Green Infrastructure as a guiding theme for development in line with Fingal Development Plan policy. It would also provide a means of integrating adjoining development outside the LAP area with new development into a coherent urban fabric. The theme Green Infrastructure would be implemented under the five key headings set out in the Fingal Development Plan 2011-2017 namely Biodiversity, Parks, Open Space and Recreation, Sustainable Water Management, Archaeological and Architectural Heritage and Landscape. This scenario seeks to focus on the multi-functionality of Green Infrastructure, which when planned in a coherent manner provides significant social and economic benefits for the surrounding communities. It provides a holistic approach to developing the landscape inclusive of other influences such as ecological development, improving air, water and soil quality, flood protection access provision and linkages, climate change/amelioration, pollution control and quality of life issues. It can be recognised as a significant element within sustainable communities, contributing directly or indirectly to economic development and delivering real benefits to people's quality of life.

Reflecting the proximity of the LAP lands to environmentally sensitive European Sites and the unique setting and typography of the area this option would seek to retain existing landscape features on the site such as townland boundaries, to create green corridors through the site and to create sensitively designed recreational lands that would serve the needs of the future population of the lands while also providing feeding/roosting habitat for estuarine birdlife within a designated ecological buffer zone through appropriate habitat protection measures and management would be major priorities for this LAP. The important archaeological heritage of the site would also be a key determinant in shaping the layout of development.

This scenario would, insofar as is possible, safeguard the distinctive character and openness of the area and would conserve the natural and cultural heritage. The existing streams and hedgerows which traverse the Plan lands would be safeguarded, enhanced and maintained with cycle/pedestrian routes provided in strategic locations throughout the Plan lands, enabling recreation whilst providing a pleasant environment for the existing and future populations. All surface water run-off within the newly developed Plan lands would be managed within the site.

The Urban Design Framework would guide the layout and form of development on the site would be moulded to take account of the landscape, important green infrastructure element set out above, cultural heritage and movement patterns. Detail will be included as to appropriate heights and forms of development reflecting the different level of visual and environmental sensitivities across the site while also maximising important view lines out of the site. Increased emphasis would be placed on the development of extensive pedestrian and cycle links and connections through the residential area linking to the local centre, train station and surrounding areas thereby minimising the need the private car.

Overall allowance is made in this scenario for as great a balance as possible between the needs of built development and environmental protection with mitigation measures ameliorating any

negative environmental impacts. This option would improve the status of habitats, species, ecological connectivity and water quality protection as well as facilitating flood risk management. This Alternative would also contribute towards the minimisation of impacts upon visual sensitivities and archaeological heritage and would provide a strong sense of place and high quality living environment for all residents.

This scenario is based on the principles of sustainable development which means that the Plan is promoted in accordance with International, National, Regional and County guidelines and legislation and the entire Plan area is also covered by the objectives and policies of the Fingal Development Plan 2011-2017 and the mitigation measures proposed in such.

4.3 Evaluation of Alternative Scenarios

This section summarises the evaluation of the Alternative Scenarios that is found in Section 6 of the Environmental Report which provides a detailed description of the evaluation of Scenarios against both the existing environment and Strategic Environmental Objectives.

Alternative 1: Retain the layout of the 2006/2007 LAP and Masterplan with minor amendments to incorporate SuDS measures

Planning and Environmental Impact

- This Alternative may compromise the design/function of some/all of the open space and residential areas within the development and current layout as proposed.
- With the exception of SuDS measures, there would be little or no opportunities for improving biodiversity or incorporating other Green Infrastructure measures on the site. The previous landscaping proposed as part of the 2006 LAP and 2007 Masterplan would detract from the open nature and character of the LAP lands overlooking the estuary and would seriously alter the ecology of this important habitat which supports estuarine birdlife. This proposal is not consistent with the protection of this important habitat and objective BD19 of the County Development Plan. These proposals are also inconsistent with the vision and strategy for buffer zones set out in Section 8.2 of the Fingal Biodiversity Action Plan 2010-2015. Based on the bird surveys carried out within the Plan lands and available historic data it is clear that the Plan lands form an important feeding/roosting habitat for birdlife associated with Baldoyle Bay SPA. In this regard the Appropriate Assessment process has identified a series of measures to mitigate against the loss of a valuable feeding and roosting habitat within the southern and eastern section of the lands for birdlife associated with the Baldoyle Estuary involving the retention of the open space lands as open as possible in tandem with the implementation of appropriate conservations measures and low intensity recreational uses. As stated above, the existing landscaping proposed as part of the 2006 LAP and Masterplan are not compatible with these mitigation measures.
- The Fingal Development Plan is underpinned by a key environmental principle based on providing a Green Infrastructure network. The key themes which encompass green infrastructure are Landscape Character, Biodiversity, Open Space and Recreation, Archaeological and Built Heritage, Sustainable Water Management. This Alternative would make little attempt to avoid impacting the natural amenity features of trees, hedgerows and watercourses and incorporating them into the proposed development. Rather, it is intended to remove these features, almost in their entirety.
- This Alternative would provide limited opportunities to reassess the overall layout of the scheme in order to ensure that the distinct character areas, points of visual interest, natural assets for biodiversity, recreational opportunities, maximising on principle views and providing high quality pocket parks and green routes/corridors are promoted.
- In terms of a layout and design solution this alternative does not encourage the investigation of the best 'fit' or design solution in terms of recognising the undulating, designated sensitive, coastal landscape. The Urban Design Manual – A Best Practice

Guide (2009) clearly states that the context of the site should be the starting point when designing a new scheme.

- This Alternative reduces opportunities to incorporate flood risk management and water quality in a holistic way as envisaged in the Government, Regional and Local Guidelines and policies.

In terms of positive elements that would arise on foot of this alternative:

- This Alternative would represent an improvement in SuDS principles on the previous LAP/Masterplan and there would be greater control of run-off. However, the potential for a complete SuDS solution would not be reached.
- It may obviate the need to undertake a complete redesign although retrofitting in itself may require significant alterations to the layout.

Alternative 2: Retain the layout of the 2006/2007 LAP and Masterplan while trying to incorporate SuDS and Green Infrastructure measures

Planning and Environmental Impact

This Alternative would:

- attempt to mitigate against the loss of the natural amenity features of trees, hedgerows and watercourses and incorporate them into the proposed development.
- increase opportunities for biodiversity within the site and the incorporation of some measures to mitigate against the loss of a valuable feeding and roosting habitat within the southern and eastern section of the lands for birdlife associated with the Baldoyle Estuary involving the retention of the open space lands as open as possible in tandem with the implementation of appropriate conservations measures and low intensity recreational uses.
- improve opportunities for achieving more sustainable movement patterns and linkages across the site.
- compromise the design/function of some/all of the open space areas within the development and current layout as proposed.
- would provide limited opportunities to reassess the overall layout of the scheme in a holistic way in order to ensure that the distinct character areas, points of visual interest, natural assets for biodiversity, recreational opportunities, maximising on principle views and providing high quality pocket parks and green routes/corridors.
- would not represent the best 'fit' or design solution in terms of recognising the undulating, designated sensitive, coastal landscape. The Urban Design Manual – A Best Practice Guide (2009) clearly state that the context of the site should be the starting point when designing a new scheme.
- This Alternative reduces opportunities to incorporate flood risk management and water quality in a holistic way as envisaged in the Government, Regional and Local Guidelines and policies.
- not provide opportunities to maximise the visual interest of the area.
- not be consistent with the vision and strategy for buffer zones set out in Section 8.2 of the Fingal Biodiversity Action Plan 2010-2015. Based on the acknowledged feeding/roosting habitat within the Plan lands and consultation within the Council's Biodiversity Officer, these open space lands must remain as open as possible and combined with appropriate conservations measures and low intensity recreational uses, all subject to Appropriate Assessment and National Parks and Wildlife Service approval.

Alternative 3: Complete review of the LAP with a strong emphasis on Green Infrastructure

Planning and Environmental Impact

This Alternative would:

- significantly go towards maximising the potential for land use-transport integration (*Smarter Travel*) and sustainable travel.
- through the use of Green Infrastructure, contribute towards the minimisation of impacts upon visual sensitivities and archaeological heritage. The plan would be informed by the natural and man made heritage, topography, views, flooding issues, groundwater status, the protection of soil functions and this is combined with an appropriate open space network, appropriate buffering of sensitive areas to form a plan for a sustainable urban extension.
- minimise conflicts with the status of habitats, species, ecological connectivity, water quality protection, groundwater status and soil function as well as flood risk management and visual and cultural sensitivities and maximise the potential for the inclusion of appropriate mitigation measures where there is any potential for negative impacts to occur.
- allow for explicit recognition of the 12 urban design principles set out in the Urban Design Manual – A Best Practice Guide (2009) and as reiterated in the Fingal Development Plan 2011-2017.
- allow for a comprehensive review of unit types and sizes.
- facilitate the development of strong pedestrian and cycle linkages with adjacent lands to the south at Baldoyle.
- provide opportunities to minimise the visual impact of the development

Summary Assessment of Alternatives using the SEOs

	Potential Positive Impact	Potential Negative Impact	Both Positive and Negative impacts likely or that in the absence of further detail the Impact is Unclear	Neutral or no impact
Alternative 1 Retain the layout of the 2006/2007 LAP and Masterplan with minor amendments such as SuDS	BO2, PO1, PO2, MO3	BO1, BO3, BO4, PO3, PO4, WO2, LO2, MO2	WO1, CO1, CO2, CO3, CO4	LO1, MO1
Alternative 2 Retain the layout of the 2006/2007 LAP and Masterplan while trying to incorporate SuDS and Green Infrastructure measures	BO2, PO1, PO2, MO3	BO4, WO2, LO2, MO2	BO1, BO3, PO4, WO1, CO1, CO2, CO3, CO4	PO3, LO1, MO1
Alternative 3 Complete review of the LAP with a strong emphasis on Green Infrastructure	BO1, BO2, BO3, BO4, PO1, PO2, PO3, PO4, WO1, WO2, CO1, CO2, CO3, CO4, LO2, MO5	MO2		MO1, LO1

Synopsis of SEOs

B01	Avoid loss of locally rare and distinctive species
B02	Avoid loss of designated sites (SACs/SPAs/NHAs)
B03	Enhance Green linkages
B04	Facilitate the actions set out within the Fingal Biodiversity Action Plan
P01	Ensure that all new developments granted permission are adequately served with community facilities
P02	Ensure that the LAP lands are provided with a good mix and quality of house type facilitating mixed tenure
P03	Ensure that local employment opportunities are promoted
P04	Ensure that sustainable transport modes are readily accessible
WO1	Improve water quality in rivers, estuaries and groundwater
WO2	Promote sustainable use of water and water conservation
C01	Implement the Planning System and Flood Risk Management Guidelines
C02	Incorporate the objectives of the Floods Directive into sustainable planning and development
C03	Development of a sustainable transportation infrastructure which reduces the need for travel and journey length
C04	Ensure that all new housing is energy efficient
LO1	Avoid the loss of designated views
LO2	Protect and enhance the designated coastal landscape having particular regard to its designations under the Habitats Directive and the Birds Directive
M01	Ensure higher densities are achieved on zoned residential lands in close proximity to public transport
M02	Protect and promote the coastline of Fingal as an asset now and in the future.
M03	Discharge to waste water treatment plants that comply with the Water Framework Directive and the Urban Waste Water Directive

4.4 Reasons for choosing the LAP strategy, as adopted, in light of other reasonable alternatives considered

Each development alternative scored/ rated against the SEA objectives and the scores were compared against each other. From this exercise it became evident that Alternative 3, which is a complete review of the existing LAP to incorporate all current Government, regional and local policies including the objectives of the Fingal Development Plan 2011-2017 is the preferred Alternative.

Alternative 3 offers sustainable levels of population growth which can be matched by social and physical infrastructure provision. It would have beneficial effects on the provision of community facilities, housing mix, amenities and best use of existing infrastructure as well as providing for opportunities to enhance the biodiversity value of the lands within the vicinity of the designated European sites at Baldoyle Bay.

This Alternative contributes towards the protection of the environment and conforms to high level planning objectives. By complying with appropriate mitigation measures potential adverse environmental effects which could arise as a result of implementing this scenario would be likely to be avoided, reduced or offset.

Notwithstanding this however, the Draft Local Area Plan option that has emerged from the Plan preparation process has a close correlation to Alternative 3 in terms of the inclusion of the element and benefits of the Green Infrastructure, SuDS and the 12 principles of Urban Design. However, in acknowledging current economic realities, the chosen approach also includes

elements of Alternative 2 insofar as attempts have been made to retain some of the key elements of the 2006/2007 Local Area Plan and Masterplan.

A combination of the Alternatives 2 and 3 has been developed by the Planning Team having regard to:

- The environmental effects which were identified by the Strategic Environmental Assessment and are detailed under previous subsections above; and
- Planning - including social - effects which are identified alongside environmental effects above.
- Economic conditions pertaining at the time of preparation of the Draft LAP

By complying with appropriate mitigation measures - including those which have been integrated into the Local Area Plan – potential adverse environmental effects which could arise as a result of implementing this scenario would be likely to be avoided, reduced or offset.

4.5 Summary of Influence of the SEA Procedure on the Plan

Overall, the influence of the SEA process on the Portmarnock South Local Area Plan has been positive. The early identification of the important environmental issues within the Plan area, and refinement of those issues during the scoping process and production of the Environmental Report allowed for adoption of meaningful environmental protection policies into the LAP. Continual assessment of policies and motions, as well as submissions and observations from interested parties also resulted in modification of policies for the benefit of the environment of Fingal.

SECTION 5 Monitoring Measures

5.1 Introduction

The SEA Directive requires that the significant environmental effects of the implementation of plans and programmes are monitored. This SEA Statement identifies the proposals for monitoring the Plan which were adopted alongside the Plan.

Monitoring enables, at an early stage, the identification of unforeseen adverse effects and the undertaking of appropriate remedial action. In addition to this, monitoring can also play an important role in assessing whether the Plan is achieving its environmental objectives and targets - measures which the Plan can help work towards - whether these need to be re-examined and whether the proposed mitigation measures are being implemented.

5.2 Indicators and Targets

Monitoring is based around the indicators which were chosen earlier in the process. These indicators allow quantitative measures of trends and progress over time relating to the Strategic Environmental Objectives used in the evaluation. Focus has been given to indicators which are relevant to the likely significant environmental effects of implementing the Plan.

The Monitoring Programme may be updated to deal with specific environmental issues - including unforeseen effects - as they arise. Such issues may be identified by the Council or identified to the Council by other agencies.

The Table below shows the indicators, targets and information sources which have been selected with regard to the monitoring of the Plan.

5.3 Sources

Measurements for indicators generally come from existing monitoring sources. Existing monitoring sources include those maintained by the Council and the relevant authorities e.g. the Environmental Protection Agency, the National Parks and Wildlife Service and the Central Statistics Office. Based on this most of the indicator information required is already being actively collected and reported at a level sufficient to meet the needs of this Plan.

The Development Management Process in the Council will provide passive monitoring of various indicators and targets on an application by application basis. Where significant adverse effects - including positive, negative, cumulative and indirect - have the potential to occur upon, for example, ecological networks as a result of the undertaking of individual projects or multiple individual projects such instances should be identified and recorded and should feed into the monitoring evaluation.

5.4 Responsibility

The Council is responsible for the ongoing review of indicators and targets, collating existing relevant monitored data, the preparation of monitoring evaluation report(s), the publication of these reports and, if necessary, the carrying out of corrective action.

5.5 Reporting

Fingal County Council will carry out a mid-term review of performance against SEA Objectives. This will occur in 2016 and will use information in the most recent information from the EPA State of the Environment Report, updated environmental data available on the EPA website as well as data collated as part of the SEA Scoping for the Plan. Reporting on the overall monitoring of the Plan will be made to the EPA SEA Section.

Objectives	Sub Objective (where relevant)	Targets	Indicators	Source/Responsibility
<p>Objective 1 Biodiversity Flora and Fauna</p> <p>Protect and where appropriate, enhance biodiversity, particularly protected areas and protected species</p>	<ul style="list-style-type: none"> • Avoid loss of locally rare and distinctive species • Avoid loss of designated sites (SACs/SPAs/NHAs) • Enhance Green linkages • Facilitate the actions set out within the Fingal Biodiversity Action Plan 	<ul style="list-style-type: none"> • No planning permissions granted within 100m of the boundary of a designated site • Facilitate relevant actions of the Fingal Biodiversity Action Plan by 2019 • No loss of locally rare /distinctive species/habitats • No net loss of green linkages established under Green Infrastructure Plan/Strategy • No loss of designated sites 	<ul style="list-style-type: none"> • Number of developments receiving planning permission within 100m of the boundary of a designated site • Number of actions facilitated in Biodiversity Action Plan • Number of sites containing locally rare/distinctive species/habitats. • Area of new green infrastructure established • Number of planning permissions with biodiversity conditions 	<p>Fingal Co. Co. – Planning/Heritage Officer Biodiversity Officer</p>
<p>Objective 2 Population, Human Health</p> <p>Provide high-quality residential, working and recreational environments and sustainable transport</p>	<ul style="list-style-type: none"> • Ensure that all new developments granted permission are adequately served with community facilities • Ensure that the LAP lands are provided with a good mix and quality of house type facilitating mixed tenure • Ensure that local employment 	<ul style="list-style-type: none"> • Provide 20 childcare places per 75 houses • Reserve a school site to accommodate resident school going children. • All new homes to be built within <ul style="list-style-type: none"> ○ 300m of a local park ○ 2km of a neighbourhood park ○ 1km of commercial facilities • Appropriate mix of house and tenure type 	<ul style="list-style-type: none"> • Ratio of houses in LAP to total childcare places provided • School site reserved for primary school • Number of new homes built within <ul style="list-style-type: none"> ○ 300m of a local park ○ 2km of a neighbourhood park ○ 1km of commercial facilities 	<p>Fingal Co. Co. - Housing</p> <p>Planning (with input from Fingal Childcare Committee)</p> <p>Parks/Planning Community/Planning</p> <p>CSO, POWSCAR</p>

Objectives	Sub Objective (where relevant)	Targets	Indicators	Source/Responsibility
	<p>opportunities are promoted</p> <ul style="list-style-type: none"> • Ensure that sustainable transport modes are readily accessible 	<p>(including social housing) in all new developments.</p> <ul style="list-style-type: none"> • All granted planning applications for new residential developments to be accompanied by a design statement • Increase the % of local residents working locally • Decrease in journey time and distance travelled to work during the lifetime of the plan 	<ul style="list-style-type: none"> • % of planning applications granted for new residential developments that are accompanied by a design statement • % of employed both living and working in Fingal • Distance and mode of transport to work. 	
<p>Objective 3 Soil Protect the function and quality of the soil resource in Fingal</p>	<ul style="list-style-type: none"> • Safeguard soil and geological quality, quantity and function 	<ul style="list-style-type: none"> • No land reclamation permits 	<ul style="list-style-type: none"> • Number of land reclamation permits issued 	Fingal Co. Co. - Environment
<p>Objective 4 Water Protect and where necessary improve water quality and the management of watercourses and groundwater to comply with the standards of the</p>	<ul style="list-style-type: none"> • Improve water quality in rivers, lakes, estuaries and groundwater. • Promote sustainable use of water and water conservation 	<ul style="list-style-type: none"> • Implementation, insofar as effected by the Plan lands, of the Programme of Measures identified under the ERBD River Basin Management Plan for the River Mayne. • New residential developments to incorporate water 	<ul style="list-style-type: none"> • River Mayne achieving 'good status' as defined in the WFD • % of residential units which incorporate water conservation measures as part of their planning permission. 	EPA Fingal Co. Co. - Water Services Planning

Objectives	Sub Objective (where relevant)	Targets	Indicators	Source/Responsibility
Water Framework Directive objectives and measures and all water, habitat and fisheries based legislation including the Urban Wastewater Treatment Directive, the Freshwater Fish Directive etc.		conservation measures such as rainwater harvesting		
<p>Objective 5 Air Quality and climate Contribute to mitigation of, and adaptation to, climate change and air quality issues</p>	<ul style="list-style-type: none"> • Implement the Planning System and Flood Risk Management Guidelines • Incorporate the objectives of the Floods Directive into sustainable planning and development • Development of a sustainable transportation infrastructure which reduces the need for travel and journey length • Ensure that all new housing is energy efficient 	<ul style="list-style-type: none"> • All new residential development within the areas to have undergone a site specific flood risk assessment. • No new residential development within the 1:1000 flood plain • All new residential buildings granted planning permission within the lifetime of the plan to have a minimum A3 BER Rating • Increase in the number of persons using sustainable modes of transport i.e. bus, rail, cycling and walking in the Plan lands 	<ul style="list-style-type: none"> • % of new developments that have been conditioned to implemented the recommendations of the site specific flood risk assessment • Number of non water compatible developments permitted in the high risk zone (greater than 1:200 year event for coastal flooding and 1:100 year event for river flooding). • Percentage of new residential buildings granted planning permission with minimum A3 BER rating • % of persons using 	<p>FEMFRAMS</p> <p>Fingal Co. Co. - Housing/ Architects/ Planning Transportation/Planning Water Services/Planning Planning</p> <p>CSO – small area population statistics (SAPS)</p>

Objectives	Sub Objective (where relevant)	Targets	Indicators	Source/Responsibility
			sustainable modes of transport within the CSO small areas relevant to the Plan lands.	
<p>Objective 6 Cultural Heritage Protect and, where appropriate, enhance the character, diversity and special qualities of cultural, architectural and archaeological, heritage in Fingal</p>	<ul style="list-style-type: none"> Protect the cultural heritage of Fingal with regard to the landscape surrounding the LAP lands. 	<ul style="list-style-type: none"> No impacts on the cultural heritage value by development granted planning permission Retention of views to key sights such as Ireland's Eye 	<ul style="list-style-type: none"> Number of planning permissions within 100m of designated sites Number of developments which have taken account of views. 	Fingal Co. Co. - Planning Heritage Officer
<p>Objective 7 Landscape Protect and, where appropriate, enhance the character, diversity and special qualities of landscapes in Fingal</p>	<ul style="list-style-type: none"> Avoid the loss of designated views Protect and enhance the designated coastal landscape having particular regard to its designations under the Habitats Directive and the Birds Directive 	<ul style="list-style-type: none"> Maintain and enhance the character of the coastal landscape and its biodiversity value Layout of development to incorporate protected views 	<ul style="list-style-type: none"> Number of protected views lost through development Implementation of the objectives and measures of the Landscape Masterplan in the LAP by 2019 	Fingal Co. Co. – Planning/ Heritage Officer Environment (Parks) Biodiversity Officer
<p>Objective 8 Material Assets Make best use of existing infrastructure and promote the sustainable</p>	<ul style="list-style-type: none"> Ensure higher densities are achieved on zoned residential lands in close proximity to public transport 	<ul style="list-style-type: none"> Increase the density of development in proximity to the rail line Increase in the length in Km of coastal walkway developed over the 	<ul style="list-style-type: none"> Percentage of development that is built out in accordance with the Preferred Masterplan and the Sequencing and 	EPA Fingal Co. Co. – Planning Water services Parks

Objectives	Sub Objective (where relevant)	Targets	Indicators	Source/Responsibility
development of new infrastructure	<ul style="list-style-type: none"> • Protect and promote the coastline of Fingal as an asset now and in the future. • Discharge to waste water treatment plants that comply with the Water Framework Directive and the Urban Waste Water Directive 	<p>lifetime of the plan</p> <ul style="list-style-type: none"> • Ensure that all waste water is drained to WWTPs that comply with the Water Framework Directive and the Urban Waste Water Directive 	<p>Phasing strategy of the LAP</p> <ul style="list-style-type: none"> • Length in Km of coastal walkway • % of development that is connected to Ringsend Wastewater Treatment Plant or other plant that conforms with the requirements of the Water Framework Directive and the Urban Waste Water Directive 	Environment