

**Strategic Environmental Assessment (SEA) Statement of the
Dardistown Local Area Plan 2013-2019 SEA**

**SEA STATEMENT
On the
Dardistown LOCAL AREA PLAN
2013-2019**

STRATEGIC ENVIRONMENTAL ASSESSMENT

**Fingal County Council
January 2013**

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SECTION 1 Introduction

1.1 Purpose of Report

This is the Strategic Environmental Assessment (SEA) Statement of the Dardistown 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 Planning Scheme, 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 Dardistown LAP area was potentially likely to have significant effects on the environment from 5,000 + employees.

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 (Call for Submissions and direct contact with landowners), 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 (pre draft 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 Dardistown LAP, this SEA Statement - which is available alongside the LAP - was prepared.

1.4 Production of the SEA

The Strategic Environmental Assessment of the Dardistown Local Area Plan 2013-2019 was undertaken internally in the Council in conjunction with specialist consultants.

SECTION 2 How Environmental Considerations were integrated into the Planning Scheme

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 20th February 2012 for a five week consultation period (until 28th March 2012). 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);
 - National Roads Authority (NRA)
 - National Transport Authority (NTA)
 - Dublin City Council.
- identify and consult on the environmental objectives, which will be used to ensure the integration of the environment into the preparation of the Dardistown 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 Dardistown 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 one submission was received from the Environmental Protection Agency (EPA).

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

- Development of environmental objectives and indicators and targets
- Improvement of surface water quality
- Provision of adequate and appropriate critical service infrastructure.
- Provision/protection of green infrastructure/ecological linkages & corridors
- Protection of bathing waters and designated shellfish areas
- Protection of designated and undesignated biodiversity
- Flood risk assessment
- References for recent legislative changes in SEA and related matters
- Attention to changes in related Habitats legislation.

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 Dardistown 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. Objectives were included to ensure that there would be no negative impact on water courses throughout the LAP lands arising from development. A SuDS strategy was also prepared in order to minimise the potential for flooding and to improve the quality of water that enters water courses.
2. Requirements are included within the LAP that existing natural features and wildlife corridors are protected and incorporated into development proposals.
3. It raised the awareness of the existing level of environmental information in the LAP area, the potential impact on EU Designated Sites within 15 kms of the lands and also the EU and National legislation governing the environment.
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 Dardistown 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

Before impacts on the environment can be predicted, it is necessary to achieve an understanding of the relevant existing conditions. Baseline data was collected using the indicators described in the SEA Directive. This data was collected in the areas of biodiversity, fauna, flora, population, human health, soil, water, air/climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship of these factors. All available existing data sources were used including C.S.O., Environmental Protection Agency (EPA), Geological Survey Ireland, O.P.W., N.P.W.S. and Fingal County Council data on water, air, noise and traffic, relevant EIS.

Additional studies were undertaken in the areas of:

- Biodiversity/Flora & Fauna Natura Environmental Consultants
- Soil TJ O'Connor and Associates
- Air and Noise AWN Consulting
- Landscape Mitchell & Associates
- Water TJ O'Connor and Associates
- Archaeology/Cultural Heritage Neil O'Flanagan & Associates
- Transportation ILTP Consulting and Aecom report.

2.2.3 Key Environmental Issues Identified

The following baseline information was assessed as part of the LAP/SEA process:

- Biodiversity/Flora and Fauna,
- Population and Human Health,
- Soil,
- Water,
- Air & Climatic Factors,
- Material Assets / Cultural Heritage (including Architecture and Archaeological Heritage),
- Transport,
- Identified data gaps in scoping document.

Aspects of the environment that needed careful consideration; and/ or those opportunities arising to optimise the contribution that the LAP makes to securing sustainable development were also examined.

The key issues related to:

- Water Services - It is important that there is no deterioration in water quality in the Turnapin Stream which flows into the Mayne river and eventually the Baldoyle cSAC. It is also important to ensure development runoff is adequately treated and SUDS principles are assessed and implemented in any future development.
- Biodiversity/Flora and Fauna – Protection of existing, limited ecology is important in the conversion of the LAP lands from greenfield to an urban environment, with a focus on enhancement of biodiversity throughout the development.
- Transportation – Sustainable development of the LAP lands will be supported with the planned development of QBC routes and the Metro North public transport rail corridor, within the LAP area. The LAP must ensure an integrated land use and public transport strategy is developed to support patronage of public transport and reduce car usage.

Baseline information existed and specific studies were undertaken in relation to these issues. In this way the planning authority ensured no negative direct or indirect environmental impacts on the LAP lands, as well as on the wider area, as a result of the strategy for development of the Dardistown area.

2.2.3 Strategic Environmental Objectives (SEOs)

The SEOs are measures against which the environmental effects of the Dardistown 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
<p>Biodiversity Flora and Fauna (BFF)</p> <p>B1 Conserve and enhance the diversity of habitats and species.</p>
<p>Population, Human Health (PHH)</p> <p>P1 Protect human health and enjoyment of amenities.</p> <p>P2 Improve quality of life experience through the provision of high quality urban, natural and recreational environments.</p>
Strategic Environmental Objective and SEA Topic Area (cont'd)

P3 Provide for an urban area of unique character with good variety; continuity; legibility; ease of movement; quality public realm; diversity and adaptability in a comprehensive and holistic fashion that is fully integrated with public transport provision

Soil (S)

S1 No increase on the impact of soils on the existing environment. Minimise the amount of waste soil sent to landfill and reuse on site if possible.

Water (W)

W1 Achieve and maintain good ecological and water quality status for all surface water, groundwater, existing rivers and streams, particularly those entering the estuaries.

W2 Promote sustainable use of water and water resources.

W3 Ensure that new development is adequately serviced by foul drainage infrastructure.

W4 Promote protection of surface water, groundwater, coastal and estuarine water resources and their associated habitats and species including fishing.

W5 Provide for appropriate flood risk assessments to be undertaken where development are proposed where there is a risk of flooding.

Air Quality and Climatic Factors (AQ/C)

A1 To ensure any development within the LAP minimizes any contribution to increase in air pollutant concentrations at sensitive receptors in the area.

A2 To minimise adverse impacts on climate and ensure any development within the LAP minimises Greenhouse Gas emissions.

Noise (N)

N1: To ensure any development within the LAP does not contribute to an increase in environmental noise levels at noise sensitive properties in proximity to the site of development.

Cultural Heritage (CH)

C1 To protect, preserve, and enhance the cultural heritage of the LAP area.

Strategic Environmental Objective and SEA Topic Area (cont'd)

Landscape (LH)

L1 Improve the overall landscape character and quality in the area.

L2 To provide a landscape design that will enhance the ecological habitats in the area.

Transport (T)

T1 Facilitate sustainable movement, through greater use of public transport and other sustainable modes such as walking and cycling.

2.2.4 Environmental Assessment

Policies and objectives of the Draft LAP were formulated and informed by the SEA and FRA processes in addition to the feedback from the environmental agencies, the general public and key stakeholders throughout 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, neutral or uncertain impacts** as required under the SEA Directive.

Assessment of each Local Area Plan policies and objectives is contained within the Environmental Report (August 2012). 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 Dardistown LAP lands which are in close proximity to Dublin Airport and its good connectivity onto the regional and national road network will be further enhanced through the provision of a new public transport interchange in the form of the Dardistown Metro Stop is suitable for a sustainable high density mix of employment uses. The vision of the LAP is to provide a high quality, sustainable urban district around a high density node of activity that will be centred on the new Dardistown Metro Stop.

In addition to employment opportunities, the delivery of a new urban district of high quality design which incorporates a high quality built environment within an attractive natural setting will greatly improve the quality of life for visitors and residents alike.

With regard to human health, there are no significant impacts perceived to human health arising from the Dardistown LAP. Issues such as air/noise/waste emissions have been dealt with in the following subsections. The presence of the Dublin International Airport

noise zones has also been assessed within the Plan form. Managing these potential impacts should limit the potential for adverse human health impacts.

Biodiversity, Flora and Fauna

The LAP lands are heavily influenced by human activity and contain a number of highly modified habitats, which are of low ecological value. The treelines, hedgerows and narrow bands of woodland within the lands lack structural diversity and are relatively species poor; however, they do have value for breeding birds and are considered of moderate ecological value in a local context.

All mammal species recorded within the lands are common and widespread with no species of conservation concern. Two wetland bird species were recorded roosting and feeding in the area, although wintering populations of these species are not of conservation concern. All other bird species recorded are common and widespread.

The LAP lands drain into the Mayne River, which is moderately polluted and has no current fisheries value. The ecological value of this river is considered to be low, however, the ERFB (now IFI) are assessing the viability of a salmonid reintroduction programme for the catchment.

The Plan has sought to balance the needs and requirements of the environment with the employment zoning objective and resultant increased working population, noise, increased traffic and associated pressures on the surrounding environment. Objectives have been included within the LAP to develop and enhance existing green infrastructure, create new habitat areas where any are lost and to develop a new high quality well landscaped public realm connecting into the wider green network.

The development of a SUDS strategy to complement the existing riparian corridor of the Turnapin Stream and the Dardistown tributary will provide additional habitat for the range of species that currently are found along the corridor of the watercourses. This strategy has due regard to the proximity to the airport and recommendations have been made in respect of appropriate planting and habitat creation.

The landscaping plans for planning applications will be required to take into account the existing vegetation types present on site and where possible existing vegetation will be retained, in particular boundary vegetation.

A bat survey will be carried out, as part of the first planning application for development on the site. If bats are identified on site bat boxes will be required to be installed at an appropriate location, to encourage the bats to roost at an alternative location, while protecting their presence in the area.

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

Soil

The dominant soil type of the Local Area Plan is firm grey-brown sandy gravelly clay, or boulder clay, of glacial origin overlying carboniferous limestone bedrock. The boulder clay is over consolidated and is relatively incompressible resulting in a low permeability.

The soil is generally uncontaminated and most will be capable of being reused on site subject to landscaping proposals. The development of greenfield lands may result in an increase in surface water runoff into the Turnapin stream or groundwater pollution. However, the proposed development will be in line with the Greater Dublin Strategic Drainage Study (GSDSDS) and will require attenuation to Greenfields standards and the implementation of Sustainable urban Drainage Systems (SuDS) by replicating, as closely as possible, the natural drainage from the lands before development. All development proposals will be required to take into consideration the threat of pollution from surface water runoff and mitigate appropriately

As much soil as possible will be reused on site for landscaping purposes. The construction management plan will address issue of re-use of soil, including storage. A waste management strategy and a construction waste management strategy shall be submitted with all applications for substantial development.

It is considered that there will be no significant impacts on soil from the development of the LAP.

Water

Water Quality – The Dardistown area falls within the Eastern River Basin District (ERBD). This Eastern River Basin Management Plan (ERBMP) (2009-2015) identifies the status of water bodies within the RBD and provides objectives in order to implement the requirements of the WFD. The Mayne River (located in the Santry-Mayne-Sluice water management unit (WMU) in the ERDB plan) runs through the northern section of the plan area, from east to west, before discharging to Baldoyle Bay at the junction of Mayne Road and Strand Road (R106). In addition the Racecourse Stream, which is a tributary of the Mayne River, traverses the site. The overall status of the Mayne River is classified by the EPA *2011 Review* as being of “poor” status. Maintaining and improving water supply to a good status is a key consideration in development of the LAP lands. 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 Dardistown, prepared by TJ O’Connor & Associates 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). This SFRA concluded that there is no significant flooding history on the Dardistown LAP lands. A flood risk assessment to an appropriate level of detail has been carried out in conjunction with the SEA. Flood risk to the development can be adequately managed and the proposed use of the development lands for Zoning Objectives GE and HT will not cause unacceptable adverse impacts elsewhere. It is therefore concluded that a Site Specific Flood Risk Assessment as defined by "The Planning System and Flood Risk Management-Guidelines for Planning Authorities" is not required.

The policies of the Plan will ensure that there is no dis-improvement to the status of local watercourses and should help to improve its 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.

Cultural Heritage

Lands anticipated to be directly affected by the Metro North railway line, and station, have been the subject of extensive archaeological investigation. Initial non invasive archaeological investigations including Environmental Impact Statement (EIA; CRDS Ltd. 2008); followed by geophysical surveys (Thebaudeau & Harrison 2009) identified a possible moated site on the route of the Metro North. Further investigations, including extensive test trenching, were carried out in 2008 revealing the remains of a Medieval enclosure (Test Trenching Area 10, Headland Archaeology Ltd 2009), as well as more limited Bronze Age remains. A portion of the townland boundary ditch, trackway and stream, separating Ballystruan and Ballymun, was surveyed in Area 11 (Headland Archaeology Ltd 2009). A more extensive survey of the boundary and trackway was recommended by the RPA project archaeologist (Test Trenching Area 11, Headland Archaeology 2009, p.24). An intact vernacular house listed in the National Inventory of Architectural heritage (Thatched Cottage Reg No. 11349003) survives on the western side of the Swords Road at its junction with the former Collinstown Road, now truncated by the airport. The vernacular heritage is indivisible from its generating cultural landscape.

Additional archaeological monitoring of topsoil stripping at site clearance stage of development will be required as part of the LAP. This will have to be carried out by a suitably qualified archaeologist under licence to the Department and the National Museum of Ireland.

Landscape

The Landscape Character Assessment for Fingal divides the county into 7 Landscape Character Areas and 6 Landscape Character Types. Dardistown is located in the Airport and Swords Character Area and is of a 'Low Lying Character Type'.

Low Lying Character Type is described as:-

‘An area characterised by a mixture of pasture and arable farming on low lying land with few protected views or prospects. The Low Lying Character Type has an open character combined with large field patterns, few tree belts, and low roadside hedges.’

and

‘The low lying area is dominated by agriculture and a number of settlements. The area is categorised as having a moderate value’

Most of the LAP lands could be considered as being of low visual amenity value given that they are primarily made up of relatively flat agricultural, industrial or car park related land uses, options are limited by the proximity and pressures created by adjacent built development. There is potential for loss of hedgerows due to proposed development.

The LAP proposes a number of measures to mitigate the impact of development on the landscape including the installation of a high quality designed landscape masterplan with the integration of SuDS elements. This will ensure that

- The design is of a high quality and appropriate to the scale and context of its surroundings
- It will protect and enhance the character and landscape setting in the area.
- It will avoid adverse impacts on environmental features including existing habitats and protected species.
- Promote and implement the SuDS strategy undertaken for the LAP lands and ensure no impact on the Turnapin stream and consequently the Mayne River and Baldoyle estuary.
- It will include contemporary buildings of a high design standard, with the utilization of colours, textures and materials on proposed buildings to visually diminish the apparent massing of these buildings in the landscape.

At specific areas, e.g. along the site boundaries, there may be a requirement for particular screening of sensitive receptors, in this regard appropriate planting will take place and a management plan will be developed to address the establishment and long term maintenance of this planting.

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.

Waste Water - 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.

Water supply – The subject lands fall within the Ballycoolin reservoir supply area and combined with the watermain system these have been improved in recent years. Water supply can be obtained from the Collinstown Lane and Swords Road frontage. Where feasible, watermain provision will be incorporated in the existing and proposed road network.

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 recycling centres which are located at Estuary Recycling Centre, Swords and Coolmine Recycling Centre and local bring banks. The LAP has included policies on waste management and recycling in Section 6 including the requirement for a Construction Waste Management Strategy and Operational Waste Management Strategy.

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. The Dardistown lands are bounded by National and Regional Road Networks, including the M50. The lands have a direct access off Regional Roads including the R108, Southern Parallel Road and the R132 Swords Road. A series of road upgrades are planned in the environs of the Dardistown lands. These upgrades are not required to facilitate the development of the LAP lands but would be developed over time to meet the wider needs of the area.

The Fingal Development Plan 2011-2017 provides for accommodation of the Metro North rail alignment from St. Stephen's Green to Estuary, in the north of Swords. A Station and a 300 vehicle Park & Ride Facility at Dardistown are shown in the Development Plan and it is stated that with the development of Metro North and Metro West "the area will become central in facilitating a significant public transport interchange." Pedestrian and cyclist networks will be developed as part of the development of the lands. An Bord Pleanála has granted permission for the re-location of the Metro Depot to lands at Dardistown (06S.NA0007). An application was made to An Bord Pleanála for Metro West. The application was withdrawn in September 2011. The alignment of the proposed Metro West will be kept free from development so that the project can be delivered in the future.

In the interim public transport will be provided by way of improved bus measures including the upgrade of existing QBCs and the provision of additional QBCs. A Transport Hub is proposed and this will be developed over a number of phases initially focused on the QBC network extending to a fully integrated multi-modal interchange located in the centre of the LAP lands and adjacent to the Dardistown Metro Stop.

A network and hierarchy of permeable and legible internal streets shall be constructed to serve Dardistown LAP. These streets shall provide safe direct routes suitable for use by pedestrians, bicycles, public transport and private motor vehicles. The network shall facilitate connectivity with adjoining areas.

Section 8 of the LAP on Phasing and Implementation 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 and between the different settlements as part of the green infrastructure strategy.

2.2.5 Mitigation

Mitigation measures have been incorporated within various sections of the Dardistown LAP and are summarised in Appendix C of same. These will prevent, reduce and as fully as possible, offset any significant adverse impact on the environment of implementing the Local Area Plan.

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	CPO24 - Develop and enhance existing green infrastructure, create new habitat areas where any are lost, and develop a new high quality well landscaped public realm, connecting into the wider green network.
	CPO25 - Ensure all new development has due regard to environmental and microclimatic conditions.
	CPO26 – Ensure that all development contributes to the promotion of an environmentally sustainable pattern and form of development, and as far as possible, will consider the local, national, international and global environmental implications of development.
Water Quality	CPO 32 – A Sediment and Water Pollution Control Plan shall be submitted in accordance with the Fingal Development Plan prior to the commencement of development for the formal consideration and agreement by the Planning Authority.
	CPO 36 - A Trade Effluent Discharge Licence under the 1977 & 1990 Water Pollution Acts shall be obtained by all companies involved in development from Fingal Water Services Department to ensure all discharges to surface waters do not compromise water quality.

Landscape	CPO 31 - A 10-15 metre wide riparian corridor shall be maintained along both sides of the Turnapin Stream in order to protect and manage this existing watercourse.
	SDO18: Ensure development is of a sustainable nature and of high quality design that incorporates the use of high quality, attractive and durable materials and finishes.
Transport and Climatic Factors	TR1 - The provision of high capacity quality bus corridors within the LAP lands which are integrated with the pedestrian and cycle network, have real time information and high quality bus shelters.
	TR2 - Provide for the safe and easy movement of pedestrian and cyclists through the provision of direct high quality routes within the LAP lands.
Flooding	CPO29 - Ensure the implementation of a Stormwater Management System in the detailed design of the plan lands, following the principles of the Sustainable Urban Drainage Systems (SUDS) undertaken for the LAP.
	CPO 30 - Ensure surface water attenuation ponds, swales and dry detention basins are well designed and incorporated as design features within open space areas, particularly along the Turnapin Stream in accordance with the LAP Landscaping Strategy.

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 Dardistown 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 (April 2012), submissions on the Draft Plan and the Environmental Report (September 2012).

3.2 SEA Scoping Submissions

The scoping exercise was undertaken March/ April 2012 and the Scoping Report was circulated to statutory consultees and interested parties for their input on 7th March 2012 for a four week consultation period (until 5th April 2012).

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

- 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).
- The Plan should, where possible and appropriate, include/ and /or promote the inclusion of specific Policies and Objectives regarding the provision and maintenance of adequate and appropriate wastewater treatment infrastructure to service zoned lands and developments within the Plan area.
- 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).
- 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.
- 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 Plan should include reference to and, as appropriate, promote the implementation of Noise Directive and associated national regulations as well as the specific measures/actions set out in or due to be set out in proposed “ Noise Action Plans” for the Plan area.

- Consideration should be given to promoting specific Policies / Objectives in the Plan for the protection and improvement, as appropriate, of air quality within the Plan area, particularly in areas zoned for increased urban and transport related development.
- 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.

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 Dardistown 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 Dardistown 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)

The Environmental Protection Agency (EPA), in their role as an Environmental Authority under the Planning and Development (Strategic Environmental Assessment) (Amendment) Regulations 2004 – 2011, have made a comprehensive submission in relation to the Draft Dardistown Local Area Plan and the Environmental Report that accompanies the Draft Plan.

Their submission refers to Annex 1 of Directive 2001/42/EC (SEA Directive) and Schedule 2B of the Planning and Development (Strategic Environmental Assessment) Regulations 2004 (S.I. No. 436 of 2004)] for “*Information to be contained in an Environmental Report*”. They go on to state that key environmental considerations identified in the SEA Environmental Report have been included in the LAP such as the SUDS strategy, promotion of public transport use and also account has been taken of plans/programmes such as FEMFRAMS and the GSDSDS (Greater Dublin Strategic Drainage Study).

The detailed issues raised by the EPA, which largely related to the environmental assessment of the Draft Plan, are summarised in the table below together with responses and recommendations.

Submission Issue	Response/Recommendation
1. It is recommended that a cumulative environmental sensitivity map be included which would show areas of overlapping environmental sensitivity such as noise/ water quality/ flood risk etc. Specific mitigation measures	Recommendation: Amend LAP by including the map on page 8 of the AA screening report into Section 3.2.1 of the LAP.

dealing with these should be committed to in the plan.	
2. The EPA refer to the need to prepare a SEA Statement as per Article 141 of the Planning and Development Regulations 2001 (as amended). A list of issues to be summarised is given and the need to send this statement to any environmental authority consulted during the SEA process is mentioned.	This SEA Statement will be completed following the LAP process
Comments on Local Area Plan document	
3. EPA comment: Include the NTA's Greater Dublin Area Draft Strategy in Section 2.1 of the LAP	<p>Section 7.16 of the Environmental Report refers to the analysis and research of the <i>South Fingal Transport Study</i> which has been utilised in assessing the transport impacts of the Dardistown LAP lands. This document makes full reference to the NTA Strategy. There is no objection however to inserting the reference directly into the LAP text.</p> <p>RECOMMENDATION: Insert new section (pg.10) as follows <i>2.1.8 National Transport Authority's Greater Dublin Area Draft Transport Strategy</i> This draft document sets out the planned development of transport infrastructure in the GDA for the period up to 2030.</p>
4. EPA propose a revised wording for Objective 416 of the Fingal County Development Plan 2011-17	A revising this wording would require a variation of the Development Plan, which it is not proposed to do at this time.
5. EPA requests that provision to be included in the LAP to ensure that development is not in breach of the Water Framework Directive.	<p>Provision is already contained within Section 3.4.1 of the LAP and it is considered that sufficient protection exists in this section to ensure that the requirements of the Water Framework Directive are met.</p> <p>However it is considered that the relevant section of the LAP can be revised to more clearly require compliance.</p>

	<p>RECOMMENDATION: Amend Pg.16, section 3.4.1, <i>‘Accordingly, any development proposal will need have regard to comply with the requirements of the Water Framework Directive...’</i></p>
<p>6. EPA request that a number of additions/rewordings of LAP objectives.</p>	<p>The proposed rewordings are considered to be minor in nature/clarifications and are acceptable.</p> <p>RECOMMENDATION: Amend the following objectives:</p> <p>CPO1: <i>‘Facilitate and support sustainable economic growth...’</i></p> <p>CP03: <i>‘To facilitate appropriate development proposals...’</i></p> <p>SDO1: <i>‘To encourage the appropriate development of a wide...’</i></p> <p>SD08: <i>‘To resist and strictly control...’</i></p> <p>SDO14: <i>‘To assess new development proposals alongside the transport improvements and critical service infrastructure requirements needed to serve them.’</i></p> <p>Insert following paragraph to section 4.2.4 :</p> <p><i>Chapter 3, Green Infrastructure of the Fingal Development Plan 2011-2017 sets out a strategy for the development of Green Infrastructure throughout the county. In addition to the EU Biodiversity Strategy which promotes green infrastructure it has produced a number of documents on this important issue and it is currently producing a green infrastructure strategy.</i></p>

<p>7. EPA request that the Mitigation Measures identified in the Environmental Report are summarized in the LAP.</p> <p><i>The submission by the Dept. of the Environment, Community and Local Government has also suggested that Mitigation Measures be included as an appendix to the LAP.</i></p>	<p>RECOMMENDATION: Insert a new Appendix C – Environmental Mitigation Measures to the LAP which provides the information detailed in section 12 ‘Mitigation Measures’ (pages 132-135) of the Environmental Report</p>
<p>Comments on Environmental Report document</p>	
<p>8. EPA request consideration to be given in chapter 7 to including information on invasive species and to include Table 3 and or Table 4 of the Appropriate Assessment (AA) report into the Environmental Report.</p>	<p>No specific reference is given to invasive species, however it is considered that an objective should be inserted into Section 6.3 of the LAP:</p> <p><i>Objective NRF - Suitable and appropriate management and landscaping of development sites by landowners shall include appropriate measures to combat and control noxious weeds and alien/invasive plant species</i></p> <p>Insert tables 3 and 4 of the AA Screening Report into Section 2.4 of the Environmental Report map showing designated sites within 15 km of the plan lands.</p>
<p>9. EPA acknowledges the inclusion of both common aspects and specific differences associated with the alternative development scenarios as outlined in Chapter 9. Chapter 10 includes an assessment of the Environmental Objectives of the SEA against the LAP Strategic Objectives (Section 10.3).</p>	<p>Acknowledged.</p>
<p>10. Where there is likely to be impact on the environment, clarification to be given if these have been mitigated for.</p>	<p>These comments are noted. This LAP is being prepared in accordance with the zonings and objectives of the Fingal County Development Plan 2011-17</p>

	<p>which was subject to the SEA process. It is considered that the mitigation measures identified in section 12 will address these impacts.</p>
<p>11. Clarification to be given as to how the environmental impacts of the implementation of the plan have been assessed and documented and also to take into account cumulative effects in combination with other Plans/ Programmes and Projects.</p>	<p>These comments are noted. This LAP is being prepared in accordance with the zonings and objectives of the Fingal County Development Plan 2011-17 which was subject to the SEA process. It is not foreseen that the proposed LAP would have significant cumulative impacts in combination with other existing plans and programmes.</p>
<p>12. EPA requests more detail to be given regarding mitigation measures.</p>	<p>A wide range of mitigation measures are contained within section 12 of the Environmental Report. These are broken down in terms of the relevant environmental factors. The rationale for such measures is set out in this section of the SEA document. It is noted that future development proposals will be required to provide further detail on mitigation measures as part of the development management process.</p>
<p>13. EPA comments that there is a need for the monitoring programme to be flexible and to take account of environmental issues as they arise.</p>	<p>This may be difficult to do as the parameters for such monitoring could be difficult to define against unspecified environmental conditions. The Development Management process is again best placed to ensure that monitoring is carried out in an appropriate manner. The most appropriate forms of monitoring can be determined when applications for development are submitted.</p>

Department of Environment, Communities and Local Government

The DoECLG recommends that consideration be given to the inclusion of a summary of the mitigation measures of the SEA report and design features and conditions of the AA screening report into the body of the Draft LAP either as an Appendix or under Section 2.4.

Response:

The recommendation of the DoECLG was undertaken through the provision of Appendix C in the Local Area Plan that lists the Environmental Mitigation Measures.

3.4 Environmental Report

The Environmental Report and the Draft LAP Scheme were placed on public display in September 2012. 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 Dardistown LAP lands. Alternative Scenarios for Dardistown were considered and these are described below.

4.2 Description of the Alternative Plan Scenarios

Option 1: Do Nothing Scenario

The do-nothing option could be considered a more preferable environmental option than developing the land for mixed-use purposes. The development of this land causes the loss of greenfield land (although of a low ecological value), potential greater pressure on the local river (due to greater run-off) and an increase in ambient noise level (due to the significant transformation from agricultural lands to mixed-use lands). However, this development is necessary for the future consolidation and growth of Fingal and to provide for sustainable growth of employment and residential opportunities adjoining a high quality, planned, public transport bus and metro system.

In addition, Fingal County Council is legally required to prepare a Local Area Plan for the Dardistown lands, in accordance with the requirements of sections 18-20 of the Planning and Development Act 2000-2010. Development cannot take place within these areas prior to the adoption of a LAP by Fingal County Council. As a LAP is required by the provision of the Development Plan, a 'Do Nothing' scenario is not a reasonable alternative and would not be in keeping with the principle of the proper planning and sustainable development of the area.

The alternatives are thus limited to how the lands could be developed. Local constraints on development options, including existing and proposed transport infrastructure and the protection of the local stream (which terminates in Broadmeadow / Malahide Estuary), have been considered in the scenarios below.

Option 2: Centre Outward Phasing of development

This option considers the implications of developing the Dardistown lands commencing in the centre and moving outward.

Construction would take place adjacent to the planned Metro North Dardistown Stop many years prior to the provision of the Metro. As such the density and building type and design at this key location within the LAP lands might be inappropriate when the Metro North is delivered post 2016.

Development from the centre would lead to development within the LAP being remote from the existing QBC on the R108 and the planned QBC on the R132. As such servicing the development would add significantly to journey times and travel distance for a relatively small number of passengers.

The development of the Dardistown lands from the centre outward would require significant infrastructural provision at the earliest stage of development. Pedestrian, cycle and road linkages and services would all be required to be constructed connecting the development with the external networks.

Option 3: East West Fringe Development Moving Inward

This option considers the implications of developing the Dardistown lands with development commencing along the East and West corridors of the LAP lands and moving inward.

It is proposed that phase 1 of the Dardistown lands would be developed within the lifetime of this LAP. The lands in phase 1 are located along the West and East corridors of the LAP. As such the lands are adjacent to existing and planned QBCs and can be readily accessed by a high capacity quality bus corridor.

The full development of the LAP lands will take place over 3 phases. This will ensure the development of the lands can be fully integrated with the planned transport infrastructure.

Subsequent phases will include for higher density mixed use employment opportunities generally to the south of an east-west movement axis centred initially on an internal bus corridor and transport hub parallel to the planned Metro North and Dardistown Stop, with lower density employment uses to the north on the Objective GE lands.

The lands in the east can also be served for water and wastewater from existing services on the road network. The lands in the west can be served for water supply from Collinstown lane and for wastewater by provision of an interim pumping station and rising main pumping to the sewer in the R132. This phasing ensures spatial continuity in development and allows the appropriate design and building type to be developed adjacent to Dardistown Metro be defined in tandem with the provision of Metro North post 2016.

4.3 Evaluation of Option Scenarios

This section summarises the evaluation of the Alternative Scenarios that is found in Section 9 of the Environmental Report which provides a detailed description of the evaluation of Scenarios against both the existing environment and Strategic Environmental Objectives.

Each option was evaluated against a set of environmental objectives. Options 2 and 3 emerge as the strongest options at a strategic level, with option 3 from a planning perspective being the preferred option.

The principle difference between options 2 and 3 is the phasing of development. It is important to develop strategically located lands at the optimal level and deliver development on lands served by public transport in tandem. Option 3 more easily allows

the provision of QBCs to serve the development and facilitates the provision of appropriate development at the Dardistown Metro Stop site in tandem with the delivery of the Metro.

The performance of each option against Environmental Objectives is depicted in matrix format, using a set of symbolic ratings. The appraisal outlines a scale of impacts using symbols/colours, to highlight the most favourable options.

Summary Assessment of Alternatives using the SEOs

	Long term/ permanent positive impact	Short term positive impact	Neutral or uncertain	Short term negative impact	Long term/ permanent negative impact
Option 1 Do nothing scenario			B1, P1, P2, P3, W1, W2, W3, S1, A1, A2, N1, C1, T1, L1, L2		
Option 2 Centre Outward phasing of development	P1, P2, W1, W2, S1, C1, L1, L2		B1, P3, A1, A2, N1, T1	W3	
Option 3 East West Fringe with development moving inward	P1, P2, P3, W1, W2, W3, S1, C1, T1, L1, L2		B1, A1, A2, N1		

Synopsis of SEOs

B1	Conserve and enhance the diversity of habitats and species.
P1	Protect human health and enjoyment of Amenities.
P2	Improve quality of life experience through the provision of high quality urban, natural and recreational environments.
P3	Provide for an urban area of unique character with good variety; continuity; legibility; ease of movement; quality public realm; diversity and adaptability in a comprehensive and holistic fashion that is fully integrated with public transport provision.
W1	Achieve and maintain good ecological and water quality status for all surface water, groundwater, existing rivers and streams, particularly those entering the estuaries.
W2	Promote sustainable use of water and water Resources.

W3	Ensure that new development is adequately serviced by foul drainage infrastructure.
W4	Promote protection of surface water, groundwater, coastal and estuarine water resources and their associated habitats and species including fishing.
W5	Provide for appropriate flood risk assessments to be undertaken where developments are proposed where there is a risk of flooding.
S1	No increase on the impact of soils on the existing environment. Minimise the amount of waste soil sent to landfill and reuse on site if possible.
A1	To ensure any development within the LAP minimizes any contribution to increase in air pollutant concentrations at sensitive receptors in the area.
A2	To minimise adverse impacts on climate and ensure any development within the LAP minimises Greenhouse Gas emissions.
N1	To ensure any development within the LAP does not contribute to an increase in environmental noise levels at noise sensitive properties in proximity to the site of development.
C1	To protect, preserve, and enhance the cultural heritage of the LAP area.
T1	Facilitate sustainable movement, through greater use of public transport and other sustainable modes such as walking and cycling.
L1	Improve the overall landscape character and quality in the area.
L2	To provide a landscape design that will enhance the ecological habitats in the area.

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

Each option was evaluated against a set of environmental objectives as summarised above. Options 2 and 3 emerge as the strongest options at a strategic level, with option 3 from a planning perspective being the preferred option. The principle difference between options 2 and 3 is the phasing of development. It is important to develop strategically located lands at the optimal level and deliver development on lands served by public transport in tandem. Option 3 more easily allows the provision of QBC to serve the development and facilitates the provision of appropriate development at the Dardistown Metro Stop site in tandem with the delivery of the Metro.

In summary, the Option Scenario for the development of Dardistown which emerged from the planning process is Option 3 – this Scenario contributes towards the protection of the environment and conforms with high level planning objectives.

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.

Option 3 has been developed by the Planning Team and made as the Local Area Plan by the Elected Members having regard to both:

1. The environmental effects which were identified by the SEA and are detailed above; and
2. Planning - including social and economic - effects which are identified alongside environmental effects above.

4.5 Summary of Influence of the SEA Procedure on the Plan

Overall, the influence of the SEA process on the Dardistown Local Area Plan has had the effect of improving the consideration of the environmental aspects of the LAP. 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 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 will be identified and recorded and will 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	Targets	Indicators
<p>Biodiversity, Flora and Fauna B1 Conserve and enhance the diversity of habitats and species</p>	<ul style="list-style-type: none"> • No development approved that would have a significant impact on protected habitats, species, or their sustaining resources by development within or adjacent to the LAP lands. • Incorporate biodiversity into design of buildings, landscaping and overall development of LAP lands. • Improvement or at a minimum no deterioration in quality of Turnapin Stream. 	<ul style="list-style-type: none"> • Percentage of unique habitats and species lost in designated sites. • Landscaping and biodiversity proposals contained in Local Area Plan and planning applications. • Water quality status of the Turnapin Stream.
<p>Population and Human Health P1 Protect human health and enjoyment of amenities.</p> <p>P2 Improve quality of life experience through the provision of high quality urban, natural and recreational environments.</p>	<ul style="list-style-type: none"> • Minimise risk and impact of emissions • Include appropriate development control/amenity & recreation policies in the LAP • Requirement for urban design and landscape masterplans for each phase of development 	<ul style="list-style-type: none"> • See Items on Water/Soils/Air & Climate/Material Assets & Traffic • Number of Master plans prepared and implemented

Objectives	Targets	Indicators
<p>P3 Provide for an urban area of unique character with good variety; continuity; legibility; ease of movement; quality public realm; diversity and adaptability in a comprehensive and holistic fashion that is fully integrated with public transport provision.</p>	<ul style="list-style-type: none"> • Provide high quality public open spaces, green linkages and recreational facilities. • Provision of high quality road infrastructure, public transport and utilities services. • Provide a wide range of land uses consistent with Zoning Objectives HT and GE of the Fingal County Development Plan 2011-2017. 	<ul style="list-style-type: none"> • Phased roll out of infrastructure. • Adoption of Dardistown LAP.
<p>Soil S1 No increase on the impact of Soils</p>	<ul style="list-style-type: none"> • Avoid deterioration of groundwater resources • No contamination incidents. 	<ul style="list-style-type: none"> • Monitor existing groundwater sources within and adjacent to Plan extents.

Objectives	Targets	Indicators
<p>on the existing environment</p> <p>Minimise the amount of waste soil sent to landfill and reuse on site if possible.</p>	<ul style="list-style-type: none"> • Reuse as much existing soil as possible for landscaping of site. 	<ul style="list-style-type: none"> • Recorded on site incidents of contamination. Quantity of contaminated soil removed from site. • Quantity of soil retained on site for landscaping and other uses.
<p>Water</p> <p>W1</p> <p>Achieve and maintain good ecological and water quality status for all surface water, groundwater, existing rivers and streams, particularly those entering the estuaries.</p>	<ul style="list-style-type: none"> • Improvement or at least no deterioration in surface water quality by 2015, particularly within Turnapin Stream. • Improvement or at least no deterioration in ground water quality by 2015. • SUDS to form a major part of all surface water proposals. 	<ul style="list-style-type: none"> • Changes in water quality of Turnapin Stream as identified during water quality monitoring for the WFD. • Biotic quality rating of river waters at EPA monitoring locations. • Changes in groundwater quality as identified in monitoring programmes. • % of planning applications that incorporate SUDS.

Objectives	Targets	Indicators
<p>W2 Promote sustainable use of water and water resources</p>	<ul style="list-style-type: none"> • Planning applications to include minimum water use efficiency measures. 	<ul style="list-style-type: none"> • % of planning applications which include minimum water use efficiency measures.
<p>W3 Ensure that new development is adequately serviced by foul drainage infrastructure</p>	<ul style="list-style-type: none"> • Development phasing to be monitored to ensure capacity is available within Ringsend Wastewater Treatment Plant prior to completion of upgrade of that plant in 2015. 	<ul style="list-style-type: none"> • Prior to completion of Ringsend WWTP upgrade in 2015, consult with Fingal Water Services Department to establish that capacity is available and extent of that capacity.
<p>W4 Promote protection of surface water groundwater coastal and estuarine water resources and their associated habitats and</p>	<ul style="list-style-type: none"> • Restore at least good status by 2027 by implementation of Programme of Measures recommended in Eastern River Basin Management Plan for Sluice Mayne Santry. 	<ul style="list-style-type: none"> • Changes in water quality of Turnapin Stream as identified during water quality monitoring for the WFD. • Biotic quality rating of river waters at EPA monitoring locations. • Changes in groundwater quality as identified in monitoring programmes.

Objectives	Targets	Indicators
<p>species including fisheries.</p> <p>W5</p> <p>Provide for appropriate flood risk assessments to be undertaken where development are proposed where there is a risk of flooding.</p>	<ul style="list-style-type: none"> • Implement recommendations of Preliminary Flood Risk Assessment. • SUDS to form a major part of all surface water proposals. 	<ul style="list-style-type: none"> • Monitor planning applications to ensure that riparian corridor and flood risk zones are not encroached upon by development. • Monitor Compliance with the recommendation of the “Planning System and Flood Risk Management” Guidelines.
<p>Air/ Climatic Factors</p> <p>A1</p> <p>To ensure any development within the LAP minimizes any contribution to increase in air pollutant</p>	<ul style="list-style-type: none"> • Compliance with Air quality Standards Regulations 2011 (SI No. 180 of 2011) and EU directive 2008/50/EC. 	<ul style="list-style-type: none"> • EPA air quality data from representative suburban Zone A air monitoring stations. • Modelling of pollutant levels “with” and “without” development using DMRB Screening Model during Environmental Impact Assessments on proposed developments. • Promotion of public transport in the area, provision of cycle and pedestrian routes and cycle

Objectives	Targets	Indicators
<p>concentrations at sensitive receptors in the area.</p> <p>A2 To minimise adverse impacts on climate and ensure any development within the LAP minimises Greenhouse Gas emissions.</p>	<ul style="list-style-type: none"> • Under the Kyoto Protocol Ireland has agreed to limit the net growth of the six Greenhouse Gases to 13% above the 1990 level over the period 2008 to 2012. 	<p>parking and reduction of private car dependency in the area.</p> <ul style="list-style-type: none"> • Promotion of public transport, provision of cycle and pedestrian routes and cycle parking and reduction of private car dependency in the region are also applicable for climate. • In addition, optimum building energy ratings should be achieved for new units, and the use of renewable energy resources should be promoted.
<p>Noise</p> <p>N1: To ensure any development within the LAP does not contribute to an increase in environmental</p>	<ul style="list-style-type: none"> • Operation of plant, processes and other sources associated with development site to be designed not to increase existing noise levels at locations within “areas with undesirable high sound levels” as defined within the Dublin Agglomeration Action Plan Relating to the Assessment and Management of Environmental Noise. (i.e. above 70dB Lden, and 	<ul style="list-style-type: none"> • No increase in baseline noise levels to surrounding noise sensitive locations within “areas with undesirable high sound levels” • No increase in baseline noise levels to surrounding noise sensitive locations within “areas with undesirable high sound levels” • Achievement of desirable internal noise levels

Objectives	Targets	Indicators
noise levels at noise sensitive properties in proximity to the site of development.	<p>>55dB Lnight) Operation of internal road network to be designed not to increase day and night-time noise levels at locations within “areas with undesirable high sound levels” as defined within the Dublin Agglomeration Action Plan Relating to the Assessment and Management of Environmental Noise. (i.e. above 70dB Lden, and >55dB Lnight)</p> <ul style="list-style-type: none"> • Comfortable and desirable noise environment within on-site buildings. 	within onsite buildings including offices, industry and commercial premises through enhanced building envelope construction and site layouts.
<p>Cultural Heritage C1</p> <p>To protect, preserve, and enhance the cultural heritage of the LAP area</p>	<ul style="list-style-type: none"> • Protect and preserve any archaeological sites and monuments that may exist in the LAP area. • Retain and reuse vernacular structures, boundary wall, gates and other features, including those listed in the RPS and NIAH. • Refer all applications which may impact on the heritage to the DOEHLG • Include archaeological survey and / or test investigation in planning conditions for all Greenfield sites. • Record and incorporate into new developments cultural landscape features including field boundaries, water courses, bridges, lanes, and other historic routes. 	<ul style="list-style-type: none"> • Appropriate mitigation strategies in planning applications. • Publication in www.excavations.ie of any archaeological excavations occurring in area. • Inclusion of any archaeological sites and monuments in www.archaeology.ie database • Linear measurement of hedgerows and watercourses incorporated into the landscape.

Objectives	Targets	Indicators
<p>Landscape</p> <p>L1</p> <p>Improve the overall landscape character and quality in the area.</p> <p>L2</p> <p>To provide a landscape design that will enhance the ecological habitats in the area</p>	<ul style="list-style-type: none"> • The landscape design should be of a high quality and appropriate to the scale and context of its surroundings. • The landscaping will be designed to protect and enhance the character and landscape setting in the area. • Provision of high quality public open spaces within the LAP lands. • Avoid adverse impacts on environmental features including existing habitats and protected species. • Provision of ecological habitats within the landscape design. • Promote and implement a SuDS strategy to ensure no impact on the Turnapin stream and consequently the Mayne River and Baldoyle estuary. 	<ul style="list-style-type: none"> • Provision of high quality landscaped spaces. • Provision of ecological habitats within the lands. • Open spaces to be easily accessible and be designed to encourage use by members of the public. • Hedgerow retention where possible and enhancement of existing hedgerows. • Provision of new tree planting, shrub planting and groundcovers. • Water quality status of the waterways.
<p>Transport</p> <p>T1</p> <p>Facilitate sustainable movement,</p>	<ul style="list-style-type: none"> • High % of persons using bus, cycling and walking as modes of transport, in accordance with projected modal split, established within LAP. 	<ul style="list-style-type: none"> • Modal Split using public transport, new cycle and walking paths. • % of persons arriving at Dardistown by bike/on

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through greater use of public transport and other sustainable modes such as walking and cycling.	<ul style="list-style-type: none"> • Ease of movement through site for pedestrians and cyclists. • Ease of access from bus from existing and planned residential development to LAP lands 	<ul style="list-style-type: none"> foot. • % use of bicycle shelters provided. • % of persons arriving at Dardistown by bus.