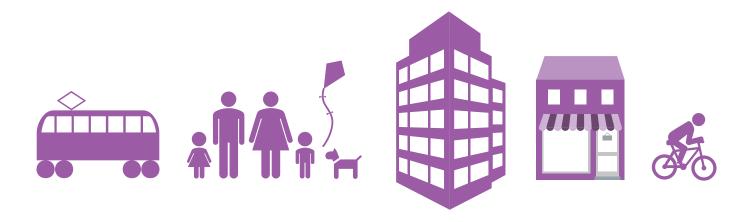
Appendix D

Fosterstown Masterplan

Strategic Environmental Assessment (SEA) Environmental Report



May 2019



Strategic Environmental Assessment (SEA)
Statement



Brady Shipman MartinBuilt.
Environment.

Strategic Assessment Built Environment

Client:

Date:

Fingal County Council
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Contents

1	Intro	oduction	1
	1.1	Background	1
	1.2	Purpose of the SEA Statement	1
	1.3	Legislative Context	2
	1.4	Overview of the SEA Process	3
	1.5	Structure of the SEA Statement	4
2	Inte	gration of the Environmental Considerations into the FINAL Fosterstown Masterplan	n 5
	2.1	Introduction	5
	2.2	Screening	6
	2.3	Scoping	7
	2.4	Appropriate Assessment (AA)	8
	2.5	Strategic Flood Risk Assessment (SFRA)	8
	2.6	Environmental Report – Draft Masterplan	8
	2.7	Public Consultation on the Draft Masterplan and Environmental Report	8
	2.8	Environmental Report - Final	9
3	Cons	sideration of Alternatives	10
	3.1	Introduction	10
	3.2	Legislative Context	10
	3.3	Proposed Alternatives	10
	3.4	Consideration against the Strategic Environmental Objectives of the Masterplan	11
	3.5	Conclusion	12
4	Mon	itoring Programme	13
	4.1	Monitoring Indicators	13
	4.2	Sources	13
	4.3	Reporting	13
	4.4	Responsibility	13
5	Cond	dusion	10

1 Introduction

1.1 Background

This is the SEA Statement prepared in relation to Fosterstown Masterplan Strategic Environmental Assessment (SEA). The Masterplan seeks to provide the optimum future development framework for the lands at Fosterstown to the south of Swords Town Centre.

SEA is a process for evaluating, at the earliest appropriate stage, the environmental quality and consequences of Plans or Programmes (P/Ps). The purpose is to ensure that the environmental consequences of P/Ps are assessed both during their preparation and prior to their adoption.

The SEA process also gives specified environmental authorities, interested parties and the general public, an opportunity to comment on the environmental impacts of the proposed P/P and to be kept informed during the decision-making process.

Fingal County Council has prepared a non-statutory Masterplan for c.13.14 hectares (ha) of land at Fosterstown. The area is conveniently located in terms of connections to Swords Town Centre, Dublin Airport as well as Dublin City Centre and the wider area.

The majority of the Fosterstown Masterplan lands are zoned

"RA – Residential Area: provide for new residential communities subject to the provision of the necessary social and physical infrastructure".

To the north a small portion of the lands is zoned:

"MC – Major Town Centre: Protect, provide for and / or improve major town centre facilities", where it adjoins similar zoning on lands north of the Masterplan area. Lands to the west and south comprise primarily residential (RS) and associated open space (OS) zonings. Lands to the east comprise high technology (HT) and retail warehousing (RW). The R132 Swords Road runs along the eastern boundary of the lands.

1.2 Purpose of the SEA Statement

The main purpose of the SEA Statement is to provide information on the decision-making process for the Fosterstown Masterplan in order to illustrate how decisions were taken, thereby making the process more transparent.

This SEA Statement has been prepared in accordance with Section 16(2)(b) of S.I. No. 435 of 2004 - European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004, as amended by S.I. No. 200 of 2011 - European Communities (Environmental Assessment of Certain Plans and Programmes) (Amendment) Regulations 2011, to summarise:

- a) how environmental considerations have been integrated into the plan,
- b) how:
 - i. the environmental report prepared pursuant to article 12,
 - ii. submissions and observations made to the competent authority in response to a notice under article 13, and
 - iii. any consultations under article 14,

have been taken into account during the making of the plan,

c) the reasons for choosing the plan, in the light of the other reasonable alternatives dealt with, and

Strategic Environmental Assessment (SEA) Statement

d) the measures decided upon to monitor, in accordance with article 17, the significant environmental effects of the implementation of the plan.

Therefore the purpose of this SEA Statement is to provide information on and transparency for the decision-making process; to document how environmental considerations, the views of statutory consultees and other submissions received during the Consultation Stages have been taken into account in the adopted Fosterstown Masterplan, as well as what arrangements are in place for monitoring.

The SEA process thereby assists in and improves the quality of the plan-making process by:

- Facilitating the identification and appraisal of alternative development strategies;
- Raising awareness of the environmental impacts of the Masterplan's implementation; and
- Encouraging the inclusion of measurable targets and indicators to aid monitoring.

1.3 Legislative Context

The requirement to undertake SEA derives from the 2001 European Community Directive 2001/42/EC (also known as the 'SEA Directive') on the assessment of the effects of certain plans and programmes on the environment.

Article 1 of the Directive states that:

"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 and programmes with a view to promoting sustainable development, by ensuring that, in accordance with this directive, an environmental assessment is carried out of certain plans and programmes which are likely to have significant effects on the environment."

The SEA Directive was transposed into Irish legislation by the:

- European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 (S.I. No. 435 of 2004), as amended by European Communities (Environmental Assessment of Certain Plans and Programmes) (Amendment) Regulations 2011, (S.I. No. 200 of 2011), and
- Planning and Development (Strategic Environmental Assessment) Regulations 2004 (S.I. No. 436 of 2004), as amended by the Planning and Development (Strategic Environmental Assessment) (Amendment) Regulations 2011, (S.I. No. 201 of 2011).

The SEA process including the preparation of the Environmental Report and this SEA Statement for Fosterstown Masterplan had regard to the above legislation and the following principal sources of guidance:

- Guidance on Implementation of Directive 2001/42/EC, European Commission, 2004.
- SEA of Local Authority Land Use Plans EPA Recommendations and Resources. EPA, Updated 2018.
- SEA Pack. EPA, Updated 2018.
- SEA Spatial Information Sources Inventory. EPA, March 2019.
- SEA Resource Manual for Local and Regional Planning Authorities. EPA, 2013.
- EPA Mapping. Environmental Mapping / Geographical Information System (GIS) tools are available at: https://gis.epa.ie/EPAMaps/
- SEA Spatial Information Sources at: http://www.epa.ie/pubs/advice/ea/
- Developing and Assessing Alternatives in Strategic Environmental Assessment Good Practice Guidance at: http://erc.epa.ie/safer/iso19115/displayISO19115.jsp?isoID=3046
- Integrating Climate Change into Strategic Environmental Assessment in Ireland A Guidance Note. EPA, 2015.

Strategic Environmental Assessment (SEA) Statement

- Circular Letter PL 9/2013: Article 8 (Decision Making) of EU Directives 2001/42/EC on Strategic Environmental Assessment (SEA) as amended. Department of Environment, Community and Local Government, 2013.
- Circular Letter PSSP 6/2011: Further Transposition of EU Directive 2001/42/EC on Strategic Environmental Assessment (SEA). Department of Environment, Community and Local Government, 2011.
- Circular Letter SEA 1/08 & NPWS 1/08: Appropriate Assessment of Land Use Plans. Department of Environment, Heritage and Local Government, 2008.
- Integrated Biodiversity Impact Assessment Streamlining AA, SEA and EIA Processes: Practitioner's Manual. Strive Report Series No. 106. Department of Environment, Community and Local Government, 2013.
- Guidance on Integrating Climate Change and Biodiversity into Strategic Environmental Assessment. European Commission 2013.
- Managing Natura 2000 Sites The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC. European Commission, 2000.
- Assessment of plans and projects significantly affecting Natura 2000 sites Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC. European Commission, 2002.
- Appropriate Assessment of Plans and Projects in Ireland. National Parks and Wildlife Service, 2009.

1.4 Overview of the SEA Process

SEA is a process for evaluating, at the earliest appropriate stage, the environmental effects of plans or programmes before they are adopted. It also gives the public and other interested parties an opportunity to comment and to be kept informed of decisions and how they were made. An early consideration of environmental concerns in the planning process creates an opportunity for environmental factors to be considered explicitly alongside other factors such as social, technical or economic aspects.

Fosterstown Masterplan has undergone a Strategic Environmental Assessment (SEA), in accordance with the legislation and guidance as outlined above.

The key stages of the SEA process, and the associated outputs required are outlined in Table 1.1 below.

Table 1.1: Outline of the SEA Process

Stage	Description	Output Required
Screening	To determine the need or otherwise for SEA of a specific plan or programme.	SEA Screening Report Decision.
Scoping	To identify the aspects of the plan or programme that are relevant to the SEA and the related key environmental issues that need to be considered.	SEA Scoping Report and Consultation with Statutory Authorities.
Environmental Assessment	Of the plan or programme: to identify, predict, evaluate and mitigate the potential impacts of the plan or programme and reasonable alternatives.	SEA Environmental Report.
Consultation, revision & adoption	To seek public opinion on the Draft plan or programme and outcome of the SEA process; influence the content of the final plan or programme and document the outcomes of the SEA process.	Consultation with the public and Statutory Authorities on the Environmental Report accompanying the Draft plan or programme, and the SEA Post-Adoption Statement (i.e. the SEA Statement), accompanying the final plan or programme.
Post-adoption activities	Subsequent monitoring of the impacts of the plan or programme during its implementation to inform the future revision and SEA of the plan or programme.	SEA monitoring regime.

Strategic Environmental Assessment (SEA) Statement

1.5 Structure of the SEA Statement

The SEA Statement has been prepared to outline 'information on the decisions' as required by the SEA Regulations. The structure of the SEA Statement is set out in Table 1.2 below.

Table 1.2: SEA Statement Structure

Number	Chapter
1	Introduction
2	Integration of the Environmental Considerations into the Final Masterplan
3	Consideration of Alternatives
4	Monitoring Programme
5	Conclusion

2 Integration of the Environmental Considerations into the FINAL Fosterstown Masterplan

2.1 Introduction

This Chapter deals with how environmental considerations and the findings of the SEA as presented in the Environmental Report were taken into account during the preparation of Fosterstown Masterplan. The process of SEA and Masterplan formulation is an iterative one and as such environmental considerations have informed all stages of the Masterplan preparation.

The protection and conservation of the environment has been a key consideration throughout the preparation of the Masterplan. Environmental considerations were integrated into the plan in a number of ways through:

- Consultation (SEA Scoping and Public Display)
- Data collection baseline data and mapping
- Identification and evaluation of Alternatives
- Mitigation Measures
- Appropriate Assessment

Table 2.1 below sets out the SEA stages and process where consultations and the integration of environmental considerations occur.

Table 2.1: Outline of the SEA Stages and Process

Stage	Description of the Process	
	Screening is the first stage of the Strategic Environmental Assessment. Screening assesses the need to undertake a Strategic Environmental Assessment.	
Screening	Screening of the Masterplan was carried out in accordance with Article 9(4) of S.I. No. 435 of 2004, as amended by Regulations S.I. No. 200 of 2011 and with the criteria set out in Schedule 1 of the Regulations.	
	It is noted that in accordance with Circular Letter SEA 1/08 & NPWS 1/08 ¹ , SEA for a Plan / Programme is also a mandatory requirement where the Plan / Programme requires Appropriate Assessment (AA) under Article 6(3) of the Habitats Directive (92/43/EEC ²).	
	Screening concluded that SEA was required for the Masterplan.	
	Scoping, which is the second stage in the SEA process, allows for an early indication of the potential of key issues, to be addressed in the SEA Environmental Report (Stage 3) as set out in Annex I of the SEA Directive.	
	Consultation with the environmental authorities is specified in Article 9(5) of S.I. No. 435 of 2004, as amended by S.I. No. 200 of 2011. Consultation at this stage is with the environmental authorities via the Scoping Report.	
Scoping	Consultation allows the environmental authorities to highlight some of the significant issues at an early stage and ensure that these issues are firmly to the forefront when considering each of the policies and objectives of the Masterplan.	
	Scoping ensures that:	
	 the SEA examines environmental issues at the correct level of detail; and reduces the risk of relevant environmental considerations not being addressed at the appropriate stage. 	

¹ Department of Environment, Heritage & Local Government: https://www.npws.ie/sites/default/files/general/circular-sea-01-08.pdf

Stage	Description of the Process	
Consultation with	1 No. submission was received from:	
the Environmental Authorities	■ The Environmental Protection Agency (EPA).	
Scoping Report	The submission received from the EPA was reviewed and incorporated into the SEA process as appropriate.	
	A multi-disciplinary team was established to create policy consistent documents and to examine the effects on the environment of implementing the objectives and policies.	
Preparation of the	Objectives created in the Draft Masterplan were assessed in the SEA Environmental Report.	
Masterplan and Environmental Report	Feedback was received throughout the Masterplan & SEA Environmental Report preparation process.	
Керогс	Mitigation measures identified, discussed and chosen.	
	Monitoring for the implementation of the Draft Masterplan was established.	
Consultation	Consultation on the Draft Masterplan and the SEA Environmental Report with the public and stakeholders.	
Evaluation of submissions	Evaluation of the submissions and observations were carried out on the Draft Masterplan and SEA Environmental Report.	
Finalisation of the Masterplan, SEA Environmental Report & SEA Statement	Finalisation of the Masterplan and the SEA Environmental Report. Preparation of the SEA Statement on how environmental considerations and consultations have been integrated into the final Masterplan.	
Monitoring	Monitoring of significant environmental effects over the lifetime of the Fosterstown Masterplan.	

2.2 Screening

Environmental considerations have been examined at different stages of the Masterplan process. It is noted that prior to adoption of the Masterplan, the Fingal Development Plan 2017-2023, which was adopted in 2017, was itself subject to a separate SEA process, and included the requirement to prepare a Masterplan for Fosterstown lands. While a Masterplan is a non-statutory plan, its preparation is a requirement of the Development Plan under:

"Objective SWORDS 27: Prepare and / or implement the following Local Area Plans and Masterplans during the lifetime of this Plan:

- · ...
- Fosterstown Masterplan (see Map Sheet 8, MP 8.I)" (page 96 of written statement)
- . ,

The Draft Masterplan was subject to screening for the requirement for Appropriate Assessment (AA) and to screening for the requirement for SEA in accordance with Article 9(4) of S.I. No. 435 of 2004, as amended by S.I. No. 200 of 2011, and the criteria set out in Schedule 1 of the Regulations.

The Screening determination concluded that SEA is required for the Masterplan based on:

- the requirement for AA under Article 6(3) of the Habitats Directive; and
- potential cumulative impacts arising from traffic and transportation when the Masterplan is considered in context of other proposed Masterplans and proposed Local Area Plans (LAP) in the Swords area.

Strategic Environmental Assessment (SEA) Statement

Therefore, it was determined that the proposed Masterplan should be subject to Strategic Environmental Assessment.

2.3 Scoping

The main objective of the Scoping Stage is to establish a decision-making framework (the SEA objectives) that could be used to evaluate the impact of the Draft Masterplan on the environment. Scoping is carried out in accordance with Article 5 (4) of the SEA Directive (2001/42/EC).

The scoping process determined the extent and level of detailed environmental information to be included in the SEA and identified the need to collect any additional data during the next stage.

Scoping also includes consultation with the Statutory Authorities, and allows for the incorporation of the views of the environmental authorities within the Plan / Programme and the SEA Environmental Report.

A Scoping Report was prepared in order to facilitate consultation with Statutory Authorities. Consultees were requested to review the content of the Report and comment on aspects they believe may require particular emphasis in the Draft Masterplan and SEA Environmental Report.

The SEA Scoping Report was issued to the following environmental authorities:

Table 2.2: List of Consultees for the Scoping Stage

Prescribed Environmental Authorities*	Non-Prescribed Environmental Authorities
EPA	Louth County Council
Department of Culture, Heritage and the Gaeltacht	Meath County Council
Department of Agriculture, Food and the Marine	Kildare County Council
Department of Communications, Climate Action and Environment	South Dublin County Council
Department of Housing, Planning and Local Government	Dublin City Council

^{*}For purposes of consultation under Article 9(5) of S.I. No. 435 of 2004, as amended by Regulations S.I. No. 200 of 2011

2.3.1 Statutory Consultation - Submission & Reponses

A submission was received from the following statutory consultee, in response to the Scoping Report:

• The Environmental Protection Agency (EPA) - 7th January 2019.

Table 2.3 below outlines the issues raised / comments and the response or how the issue was addressed within the preparation of the draft SEA Environmental Report:

Table 2.3: Review of the Scoping Submission & Responses

Submission Comments	Responses
EPA	
Acknowledged receipt of the SEA Scoping Report for the Fosterstown Masterplan.	N/A
The submission drew attention to: ■ EPA SEA resources and guidance; ■ the "State of the Environment Report Ireland's Environment - An Assessment 2016" (EPA, 2016); ■ aligning the Draft Masterplan with the national commitments on Climate Change mitigation and adaptation, as well as	SEA guidance and resources as noted were utilised in the preparation of the environmental assessments. Environmental aspects were considered and incorporated into the Masterplan, with specific reference to the Fingal Draft Climate Change Action Plan (CCAP), and includes a key principle to:
relevant sectoral, regional and local adaptation plans; • EPA SEA search and reporting tool; and	 "Ensure the long-term sustainability of the lands in the context of a changing climate and mitigate the

Submission Comments	Responses
EPA WFD monitoring programme.	resultant risks." (Section 6 Key Principles, Part A, Masterplan).

2.4 Appropriate Assessment (AA)

In addition to compliance with the SEA Directive, the preparation and implementation of the Draft Masterplan must meet the provisions of Article 6(3) of the EU Habitats Directive (92/43/EEC) for the requirement for AA.

The EU Habitats Directive provides legal protection for habitats and species of European importance. The main aim of the Habitats Directive is "to contribute towards ensuring biodiversity through the conservation of natural habitats of wild fauna and flora in the European territory of the Member States to which the treaty applies" (92/43/EEC). Actions taken in order to fulfil the Directive must be designed to "maintain or restore, at a favourable conservation status, natural habitats and species of wild fauna and flora of Community interest" (92/43/EEC).

The finding from the AA Screening process was that taking account of local surface water features and their connection to European sites (Natura 2000 sites) in Malahide Estuary, the potential for impact on a European site cannot be excluded having regard to the precautionary principle.

Malahide Estuary contains two European sites:

- Malahide Estuary Special Area of Conservation (SAC) (Site code No. 000205); and
- Malahide Estuary Special Protection Area (SPA) (Site code No. 004025).

2.5 Strategic Flood Risk Assessment (SFRA)

The Masterplan was subject to a SFRA which addresses the issues of assessment and management of flood risk and surface water in the Plan boundary, see the Fosterstown Masterplan Storm Water Management Plan (SWMP) which accompanies the Masterplan. The SFRA was prepared in accordance with the requirements of *The Planning System and Flood Risk Assessment Guidelines for Planning Authorities* (Government of Ireland, 2009).

No development is proposed within the 1 in 100 or 1 in 1000 flood areas.

2.6 Environmental Report - Draft Masterplan

The SEA process requires that environmental considerations are accounted for in the preparation of the Masterplan. The environmental assessment and evaluation process identifies the *potential significant effects* of a Plan and the mitigation measures required to offset identified adverse effects.

An SEA Environmental Report was prepared for the Draft Masterplan. The Environmental Report provided an assessment of the consequences for the environment of implementing the proposed Masterplan. Potential adverse effects were assessed against protective measures and additional mitigation measures proposed where required. Consultation submissions from the Scoping Stage were taken into consideration at this assessment Stage.

2.7 Public Consultation on the Draft Masterplan and Environmental Report

In line with SEA Regulations, the Draft Masterplan and SEA Environmental Report, Natura Impact Report (NIR) and Strategic Flood Risk Assessment (SFRA) were put on public display and observations and submissions were invited from the public and the stakeholders. Public consultation ran from Tuesday 12 March 2019 for 3 weeks until Wednesday 3 April 2019 inclusive, at Fingal County Council Offices, County Hall, Swords and on the Council's website at www.fingal.ie.

The public display of the Draft Masterplan for Fosterstown ran concurrent with the public display of the related Draft Masterplans for Estuary West and Barrysparks & Crowscastle.

Strategic Environmental Assessment (SEA) Statement

A total of 91 No. submissions were received on the Draft Masterplans. No submissions were received on the SEA Environmental Report for the Draft Masterplan for Fosterstown.

The Chief Executive (CE) prepared a report summarising the issues raised during public consultation and recommending proposed amendments to the Draft Masterplan. The CE's Report listed the submissions or observations made during the public consultation period, summarised the issues raised, responded to each submission and recommended any amendments required. The recommended amendments and motions submitted by Elected Members were subject to a full screening for the requirement for Strategic Environmental Assessment (and separately for the requirement for Appropriate Assessment). The CE's Report, with its proposed amendments and screening for SEA and AA was presented to the Elected Members³ from the Local Area in early May 2019 and to the full Council on the 13 May 2019.

2.8 Environmental Report - Final

The Masterplan and its amendments were adopted by the Elected Member of Fingal County Council on the 13 May 2019. Thereafter the Environmental Report was updated and finalised.

The final SEA Environmental Report acknowledged a detailed screening of the proposed amendments to the Draft Masterplan for the requirement for SEA. The proposed amendments were also screened for the requirement for Appropriate Assessment (AA) and the conclusion found that <u>AA was not required</u>.

The proposed amendments are either minor in nature or provide for clarification to the existing text, and have been incorporated into the final Masterplan. Individually or in combination, they do not significantly change the nature or character of the Draft Masterplan.

As such, <u>no significant interactions</u> arise and there <u>is no change to the findings detailed in the SEA Environmental Report prepared for the Draft Masterplan.</u>

The SEA Statement (this report) has been prepared outlining the SEA process; how environmental considerations were integrated into the Masterplan; how consultations were taken into account; the reasons for choosing the plan, as adopted; and the measures decided to monitor the significant environmental effects of the Masterplan.

rady Shipman Martin

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³ Elected Members perform a range of "reserved" functions at district level, including: a local policy / regulatory role in planning, roads, traffic, housing, environmental services etc.

3 Consideration of Alternatives

3.1 Introduction

Consideration of alternatives is a critical function of the SEA process and is necessary to evaluate the likely environmental consequences of a range of development strategies for the Plan within the constraints imposed by environmental and planning conditions.

SEA Statements are required to include information on the reasons for choosing the plan or programme as adopted, in the light of the other reasonable alternatives considered.

3.2 Legislative Context

Article 5 of the SEA Directive requires the consideration of reasonable alternatives taking into account the objectives and the geographical scope of the plan or programme and the significant environmental effects of the alternatives proposed. It states under Article 5(1) that;

Where an environmental assessment is required under Article 3(1), an environmental report shall be prepared in which the likely significant effects on the environment of implementing the plan or programme, and reasonable alternatives taking into account the objectives and the geographical scope of the plan or programme, are identified, described and evaluated. The information to be given for this purpose is referred to in Annex I.

In accordance with SEA guidelines the alternatives put forward should be reasonable, realistic and capable of implementation. They should also be in line with the appropriate strategic level at which the Plan will be implemented within the national and county planning hierarchy. The Masterplan will be framed within a policy context set by a hierarchy of National, Regional and County level strategic plans as well as the Irish and European legislative framework. Therefore the options for alternatives are limited, and a scenario such as the 'do-nothing' situation has not been included as it is neither reasonable nor realistic.

The alternatives proposed have been assessed against the relevant SEOs established for the key aspects of the environment likely to be affected by the Plan's implementation. The evaluation process resulted in the identification of potential impacts and informed the selection of the preferred development scenario for the Masterplan lands. This determination sought to understand whether each alternative was likely to improve, conflict with, or have a neutral interaction with the environment of the plan area.

3.3 Proposed Alternatives

The Masterplan has been prepared largely in response to the requirement to meet development need as set out in the Fingal Development Plan 2017-2023. This development must takes account of transport plans, most notably the proposed BusConnects and MetroLink projects, which will provide for a high-quality high-frequency public transport services between Swords, the airport and Dublin City Centre. Consequently, the alternatives considered were closely linked to the delivery of MetroLink.

The Fosterstown Masterplan is also one of three Masterplans being advanced by Fingal County Council in the Swords area (Barrysparks and Crowscastle and Estuary West being the other two). As such, each Masterplan has a relationship with other Plans and development proposals therein. The requirement to prepare a Masterplan is a stated objective of the Fingal Development Plan, and as such consideration of do-nothing is not a valid alternative option. Likewise the zoning objectives for the lands have been established in the County Development Plan and again consideration of alternative zoning is not a valid alternative option. The various alternative options are outlined in Table 3.1 and assessed in Table 3.2.

Table 3.1: Alternative Scenarios

Alternative Scenario 1: Unconstrained Development Scenario		
Components	Critical Evaluation	
 Greater quantum of development in the short- medium term 	 This scenario would create a severe impact on the surrounding transport / road network, if the development were to be 	
 Addressing the housing shortages in Dublin 	delivered prior to the operation of MetroLink.	

Alternative Scenario 2: 50% Development Scenario		
Components	Critical Evaluation	
 50% of development being delivered prior to the operation of MetroLink Addressing the housing shortages in Dublin 	 This scenario would create a significant impact on the surrounding transport / road network, if the development were to be delivered prior to the operation of MetroLink. While a sensitivity analysis indicated that a reduction in the quantum of car parking permitted in the proposed commercial areas would reduce the impact, the impact was still considered significant impact. 	

Alternative Scenario 3: 25-30% Development Scenario			
Components	Critical Evaluation		
 25-30% of development being delivered prior to the operation of MetroLink 	 Traffic modelling indicated that a scenario whereby 25-30% of the combined overall development of the Masterplan areas would have an acceptable impact on the surrounding transport network. 		

The project team also considered the merits of sequencing the different Masterplans for areas around Swords, e.g. allowing Fosterstown to be completed or substantially completed prior to development commencing in the other Masterplan areas. However, given the landownership patterns across the three Masterplan areas and the desire for development to commence in order to provide more local employment and housing, this approach was considered inequitable and potentially counterproductive as long delays might be experienced across all Masterplan areas if one landowner decided to postpone development. Instead, an approach whereby each Masterplan will be permitted to develop a proportion of the overall quantum of development envisaged has been adopted, subject to the recommendations of the transport assessment.

3.4 Consideration against the Strategic Environmental Objectives of the Masterplan

Table 3.2 highlights a comparative assessment of the proposed alternatives.

Table 3.2: Assessment of Alternatives

Table 5.2. Assessment of Alternatives			
SEA Objectives	Development Scenario 1	Development Scenario 2	Development Scenario 3
Biodiversity, Flora & Fauna			
(B_1) Preserve, protect, maintain and where appropriate restore the terrestrial, aquatic and soil biodiversity, including EU and nationally designated sites and protected species.	Negative	Negative	Negative
Population & Human Health			
(PHH_1) Provide high quality residential, community, working and recreational environments with access to sustainable transport options.	Negative	Negative	Positive
(PHH_2) Protect human health and well-being.	Negative	Negative	Positive
Soils & Geology			
(SG_1) Safeguard sensitive soil resources.	Negative	Negative	Negative
Water			
(W_1) Protect and where necessary improve and maintain water quality and the management of watercourses and groundwater, in	Neutral	Neutral	Neutral
compliance with the requirements of the WFD objectives and measures.	Uncertain	Uncertain	Uncertain
Air Quality, Noise & Climate Change			
(ANCC_1) Minimise emissions of pollutants to air associated with transport.	Negative	Negative	Positive
(ANCC_2) Minimise contribution to climate change by adopting adaptation and mitigation measures.	Negative	Negative	Positive
Cultural Heritage			
(C_1) Protect places, features, buildings and landscapes of cultural, archaeological and / or architectural heritage from	Neutral	Neutral	Neutral
impact as a result of development.	Uncertain	Uncertain	Uncertain
Landscape			
(L_1) Protect and maintain the special qualities of the landscape	Neutral	Neutral	Neutral
character including coastal character within Fingal.	Uncertain	Uncertain	Uncertain
Material Assets			
(MA_1) Make best use of existing infrastructure and promote the sustainable development of new infrastructure to meet the needs of the county's and Swords population.	Negative	Negative	Positive

3.5 Conclusion

As previously stated, the Fosterstown Masterplan is one of three related Masterplans in the Swords area prepared in response to stated objectives of the Fingal Development Plan 2017-2023. As such consideration of do-nothing is not a valid alternative option. The assessment outlined above identifies that **Alternative 3** is the most appropriate and environmentally protective for the future development of the Masterplan lands and wider Swords area.

4 Monitoring Programme

Under Article 10 of the SEA Directive, monitoring must be carried out of the significant environmental effects directly related to the implementation of the Plan "in order to, inter alia, identify at an early stage unforeseen adverse effects and to be able to undertake appropriate remedial action." The SEA Guidelines state that monitoring should concentrate on the 'likely significant environmental effects', which have been identified in this Report, and measures identified as necessary to avoid, reduce and offset any significant adverse effects.

4.1 Monitoring Indicators

Baseline monitoring is proposed on a series of indicators which measure changes in the environment, especially changes which are critical in terms of environmental quality, for example water or air pollution levels. These indicators aim to simplify complex interrelationships and provide information about environmental issues which is easy to understand. The indicators are based on the SEO presented in the SEA Environmental Report (Chapter 6) and have been derived from knowledge of the existing environmental issues within the Plan area and also from legislation, guidelines and higher level plans.

It is considered that a monitoring report on the implementation of the policies and objectives within the Masterplan is important for the on-going and future implementation of the Plan. It is also considered appropriate that the monitoring programme for the implementation of the policies and objectives within the Masterplan is integrated with the monitoring programme for the statutory development plans for Fingal County.

Environmental indicator assessment during monitoring can show positive / neutral impacts or negative impacts on the environment. Where an indicator value highlights a positive / neutral impact on the environment, it is likely that the policies of the Masterplan are well defined with regard to the environment. Conversely, where the policies of the Masterplan have a negative impact on the environment, it may be necessary to review the policies or objectives of the Plan or to take some other form of intervention. For example, if an objective or policy is having a significant adverse impact, a change may be considered during the lifetime of the Plan.

4.2 Sources

Measurements for indicators generally come from existing monitoring sources. Existing monitoring sources include those maintained by the relevant authorities including the EPA, the NPWS, the Central Statistics Office (CSO) and the National Transport Authority (NTA).

The output of lower-tier environmental assessment and decision making - including a review of project approvals granted and associated documents - will also be utilised as part of the Monitoring Programme.

Where significant effects - including *positive*, *negative*, *cumulative* and *indirect* - have the potential to occur 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.

4.3 Reporting

A monitoring evaluation report on the effects of implementing the Masterplan will be prepared. This report should address the indicators set out in the SEA Environmental Report. Indicators and targets will be reviewed during the preparation of the monitoring evaluation report.

4.4 Responsibility

Fingal County Council will have the overall responsibility for collating existing relevant monitored data, the preparation of preliminary and final monitoring evaluation reports, the publication of these reports and, if necessary, the carrying out of corrective action. In addition, a number of national organisations will also carry monitoring. Monitoring of air and climate related considerations will also be carried out by the EPA, whereas monitoring of impacts on biodiversity are carried out at a national level by the National Parks and Wildlife (NPWS). See Table 4.1 below for a summary of the monitoring environmental indicators for the Masterplan.

Strategic Environmental Assessment (SEA) Statement

Table 4.1: Monitoring Environmental Indicators

Environmental Theme	Indicators	Targets	Responsibility	Frequency / Timing
Biodiversity, Flora & Fauna	 Number and extent of Protected Sites. Areas actively managed for conservation. Population and range of Protected Species. Achievement of the Objectives of Biodiversity Plans. 	 Consider siting of new development on non-sensitive sites. Improve / conserve and protect all designated sites and species within and adjacent to the Plan area. Deliver the requirement of the Habitats Directive (Article 4, Paragraph 4) for the maintenance or restoration of annexed habitats and species within SACs at a "favourable conservation status. Promote the maintenance and, as appropriate, achievement of favourable conservation status of habitats and species, in association with the NPWS and other stakeholders. Protect SPAs, Annex I bird species, and regularly occurring migratory bird species and their habitats, and avoid pollution or deterioration of important bird habitats outside SPAs. Improve the ecological coherence of Natura 2000 by encouraging the management of, maintaining, and where appropriate developing, features of the landscape which are of major importance for wild fauna and flora. Such features are those which, by virtue of their linear and continuous structure (such as rivers with their banks or the traditional systems for marking field boundaries) or their function as stepping stones (such as ponds or small woods), are essential for the migration, dispersal and genetic exchange of wild species Protect NHAs, National Parks, Nature Reserves, Wildfowl Sanctuaries, Refuges for Fauna or Flora and sites proposed for designation. 	Fingal County Council National Parks & Wildlife Dept. of Housing, Planning, Community and Local Government (DHPCLG)	Monitoring of environmental likely significant effects on a project by project basis as particular elements of the plan are developed and advanced. National Monitoring Report under Article 12 of the Birds Directive. (c. every 6 years).
Population & Human Health	 Census population data Rates of Unemployment per area % increase in housing (number and type) 	 Minimise population exposure to high levels of noise, vibration and air pollution Increase modal shift to public transport Co-ordinate land use and transportation policies Improve access to recreation opportunities 	Fingal County Council CSO DHPCLG	CSO data every four years. On-going regular monitoring on increase in housing.

Strategic Environmental Assessment (SEA) Statement

Environmental Theme	Indicators	Targets	Responsibility	Frequency / Timing
Soils & Geology	 Rates of re-use / recycling of construction waste Rates of cement / concrete production Rates of brownfield site and contaminated land reuse and development Rates of greenfield development 	 Prevent pollution of soil through adoption of appropriate environmental protection procedures during construction and maintenance works on site. Ensure polluting substances are appropriately stored and bunded. Ensure appropriate management of existing contaminated soil in accordance with the requirements of current waste legislation. Re-use of brownfield lands, rather than developing Greenfield lands, where possible. Minimise the consumption of non-renewable sand, gravel and rock deposits. 	Fingal County Council EPA	Internal monitoring of likely significant environmental effects on a project by project basis Review of CORINE mapping (every c.5 years). Annual reviewing of brownfield rates
Water	 Compliance of potable water sources to water quality regulations Compliance of surface waters with national and international standards Potable and wastewater treatment capacities versus population % of wastewater achieving tertiary treatment Achievement of the Objectives of the River Basin Management Plans Amount of new developments within flood plains Annual costs of damage related to flood events 	 Support the achievement of "good" ecological and chemical status / potential of waterbodies in accordance with the Water Framework Directive. Minimise flood risk through appropriate management of flood vulnerable zones. Promote sustainable drainage practices to improve water quality and flow. 	Fingal County Council OPW EPA	On-going regular monitoring supplemented by data arising from development and delivery of the measures within the Plan (every c.2 years).
Air Quality, Noise & Climate Change	 Traffic, Transport and Vehicular survey data National and region specific emission data Compliance with national standards 	 Minimise air and noise emissions during construction and operation of new developments. Promote minimisation of greenhouse gas emissions to the atmosphere Limiting and adapting to climate change 	Fingal County Council	On-going regular monitoring supplemented by data arising from development and delivery of the measures within the Plan (every c.2 years).

Strategic Environmental Assessment (SEA) Statement

Environmental Theme	Indicators	Targets	Responsibility	Frequency / Timing
	 Reduction in greenhouse gas emissions Number and extent of emission licensed facilities Number of energy / renewable energy production facilities Rates of energy / renewable energy consumption 			
Cultural Heritage	 Updating of inventories to include new sites / features Achieving the objectives of development plans regarding heritage protection Range and extent of areas of heritage potential Range and extent of areas of special planning controls 	 Regeneration of derelict and underutilised heritage sites Improve appearance of areas with particular townscape character Improve protection for protected archaeological sites and monuments and their settings, protected structures and conservation areas and areas of archaeological potential Enhance access to sites of heritage interest 	Fingal County Council NPWS Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs (DAHRRGH)	Monitoring of Statutory Consultee inputs on environmental effects as particular elements of the Masterplan are developed and advanced.
Landscape	 Range and extent of Amenity Landscapes Rates of development within designated landscapes Rates of urban expansion Rates of deforestation Rates of agricultural land redevelopment % change of land use from rural to urban 	 Improve protection for landscapes of recognised quality Maintain clear urban / rural distinctions Enhance provision of, and access to, green space in urban areas Ensure development is sensitive to its surroundings 	Fingal County Council Private developers / landowners	Monitoring of Statutory Consultee inputs on environmental effects as particular elements of the Masterplan are developed and advanced.
Material Assets	 Location / level of Infrastructure Achievement of development plan objectives Rates of deprivation Rate of waste disposal to landfill statistics 	 Improve availability and accessibility of commercially provided facilities and public services Increase local employment opportunities Improve efficiencies of transport, energy and communication infrastructure 	Fingal County Council	

Strategic Environmental Assessment (SEA) Statement

Environmer Theme	ntal Indic	cators	Targets	Responsibility	Frequency / Timing
		Range and extent of recycling facilities and services	 Promotion of sustainable transport infrastructure i.e. increased public transport 		
	•	Rates of recycling	 Reduce the generation of waste and adopt a sustainable approach to waste management 		

5 Conclusion

The process of SEA and formulation of the Masterplan is iterative and as such environmental considerations have informed all stages of plan preparation in order for the potential for significant adverse environmental effects arising from implementation of the plan to be identified, minimised and mitigated, where required.

The Masterplan its policies and supporting objectives are key to the future sustainable development of the Swords area. The Masterplan aims to balance the needs of the future working population with the preservation and conservation of the environment as prescribed in the Fingal Development Plan. The Masterplan has a strong focus towards sustainability.

The Strategic Environmental Assessment process has been carried out in conjunction with the preparation of the Masterplan itself. This allows for an early indication of the potential environmental effects likely to occur as a result of the implementation of the Masterplan.

The assessment of the Masterplan has concluded that its policies and objectives are acceptable and represent a balanced and fair approach to the sustainable development of Masterplan lands.

Brady Shipman Martin

DUBLIN

Canal House Canal Road Dublin 6 +353 1 208 1900

CORK

Penrose Wharf Business Centre Penrose Wharf Cork +353 21 242 5620

LIMERICK

11 The Crescent Limerick +353 61 315 127

mail@bradyshipmanmartin.com www.bradyshipmanmartin.com