



STRATEGIC ENVIRONMENTAL ASSESSMENT REPORT FOR THE OLDTOWN MOORETOWN LOCAL AREA PLAN 2010

November 2010





CUNNANE STRATTON REYNOLDS
LAND PLANNING & DESIGN



STRATEGIC ENVIRONMENTAL ASSESSMENT REPORT FOR THE OLDTOWN MOORETOWN LOCAL AREA PLAN 2010

FINGAL COUNTY COUNCIL

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Abstract: This report is prepared in accordance with Schedule 2B of the SEA regulations for the strategic environmental assessment of the adopted Oldtown Mooretown Local Area Plan 2010.

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1 SEA INTRODUCTION AND BACKGROUND

1.1 Introduction and Terms of Reference

Cunnane Stratton Reynolds (hereafter CSR) and Fehily Timoney & Company (hereafter FTC) were appointed by Fingal County Council to conduct the strategic environmental assessment (SEA) of the Oldtown-Mooretown Local Area Plan 2010.

This report's purpose is to set out the likely significant environmental effects of the adopted local area plan (LAP) on the lands of Oldtown and Mooretown over the lifetime of the LAP.

The purpose of this SEA report is:

- to assess the likely significant environmental effects from the implementation of the Oldtown-Mooretown LAP
- develop mitigation measures to reduce identified significant impacts of the LAP and
- to identify monitoring procedures to assess the impact of the LAP over its lifetime.

1.2 Plan Area

The LAP area comprises approximately 111.5 hectares and is located at the western development edge of Swords. The Rathbeale Road (R125) divides the LAP lands into two distinct areas, with the lands to the north of the road known as Oldtown (c. 50.5 ha) and to the south known as Mooretown (c. 61 ha). The Rathbeale Road links to Swords town centre approximately 2 km to the east, and Ashbourne is located approximately 10 km to the west. The Broadmeadow River is located north of the Oldtown lands, beyond the LAP boundary. These lands are shown in Figure 1.1.

The lands are located in a transitional zoned area in the Fingal County Development Plan 2005-2011, between an existing built up area and agricultural lands. To the west of Mooretown, the lands are zoned 'GB' – 'to protect and provide for a greenbelt to demarcate the urban and rural area and provide for agriculture and amenity in a manner that protects the physical and visual amenity of the area'. To the west and north of Oldtown, the lands are zoned 'OS' – 'to preserve and provide for open space and recreational amenities', with the OS lands to the west identified for Swords Regional Park and OS lands to north for Broadmeadow Linear Park. To the east and south of the LAP lands are existing residential developments, zoned 'RS' – 'to provide for residential development and to protect and improve residential amenity'.

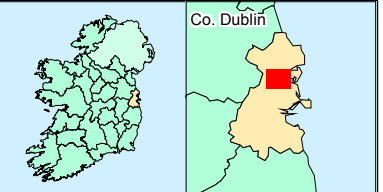
A Swords Variation was adopted in July 2008 which included zoning changes and proposals for the Oldtown-Mooretown Lands. The following changes were made to the Swords Map, SW1:

LO K - To develop Oldtown-Mooretown Western Distributor Link Road, as part of a comprehensive package of local road improvements to facilitate the optimum and sustainable development of West Swords development area, in accordance with an approved LAP. This road must be delivered in tandem with the construction of any new dwellings on these lands, in accordance with the approved phasing arrangements, as outlined in the LAP for the area.

Rezone GB to RS1 To provide for the rezoning of approximately 17 ha of land from GB to RS1 at Oldtown/Mooretown, thereby extending the development boundary of Swords westwards to provide adequate additional lands to support an improved road and public transport network in west Swords and to support the provision of a mix of uses at this location necessary for the creation of a strong, vibrant and well serviced community, including the Regional Park (Objective SWORDS 17).

Rezone GB to OS Rezone from 'GB' to 'OS' of approximately 65 ha of agricultural land west of Oldtown and adjoining and ultimately extending into the Broadmeadow River Valley Linear Park.

Plates 1.1 and 1.2 show panoramas of the Oldtown and Mooretown lands.



Legend

LAP boundary

Date	10/03/2010	
Name of Client	Fingal County Council	
Name of Job	Strategic Environmental Assessment of the Oldtown-Mooretown Local Area Plan	
Title of Figure	Oldtown-Mooretown Local Area Plan Boundary	
Scales Used	1 : 10,000 @ A4	
Figure No.	1.1	Rev A



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Plate 1.1: Panorama of Oldtown Lands (taken from Glen Ellan Distributor Road)



Plate 1.2: Panorama of Mooretown Lands (taken from Ardcian Park)



2 SEA METHODOLOGY

2.1 Strategic Environmental Assessment Definition and Role

Strategic environmental assessment is a systematic process for predicting, evaluating and mitigating, at the earliest appropriate stage, the environmental effects of plans or programmes and their alternatives before they are adopted. It gives the public and other interested parties an 'early and effective' opportunity to comment and to be kept informed of decisions and how they were made in the LAP.

The form and location of development in the study area is determined by the implementation of the LAP. In subjecting the preparation of the LAP to an SEA, development is directed to where it is sustainable and compatible with land uses and to robust receiving environments.

2.1.1 Legislation and Guidelines

The SEA process is a requirement of European law. It is governed by Directive 2001/42/EC on the Assessment of the Effects of Certain Plans and Programmes on the Environment. The Directive was transposed into Irish land use planning law by the Planning and Development (Strategic Environmental Assessment) Regulations, 2004 (S.I. No. 436 of 2004). The regulations amend the Planning and Development Regulation 2001 in order to incorporate the SEA process into land-use planning. They will be termed the "SEA Regulations" in the environmental report.

The following sources of guidance have been used during the preparation of this Environmental Report and during the overall SEA process for the LAP:

- The Department of the Environment Heritage and Local Government, Implementation of SEA Directive (2001/42/EEC) Assessment of the Effects of Certain Plans and Programmes on the Environment, Guidelines to Regional Authorities and Planning Authorities on the implementation of the Directive (2004)
- Development of Strategic Environmental Assessment (SEA) Methodologies for Plans and Programmes in Ireland, Synthesis Report, Environmental Protection Agency (2003)
- Environmental Assessment of Development Plans, Interim Planning Advice, Scottish Executive Social Research, (2003)
- Environmental Protection Agency, SEA process checklist

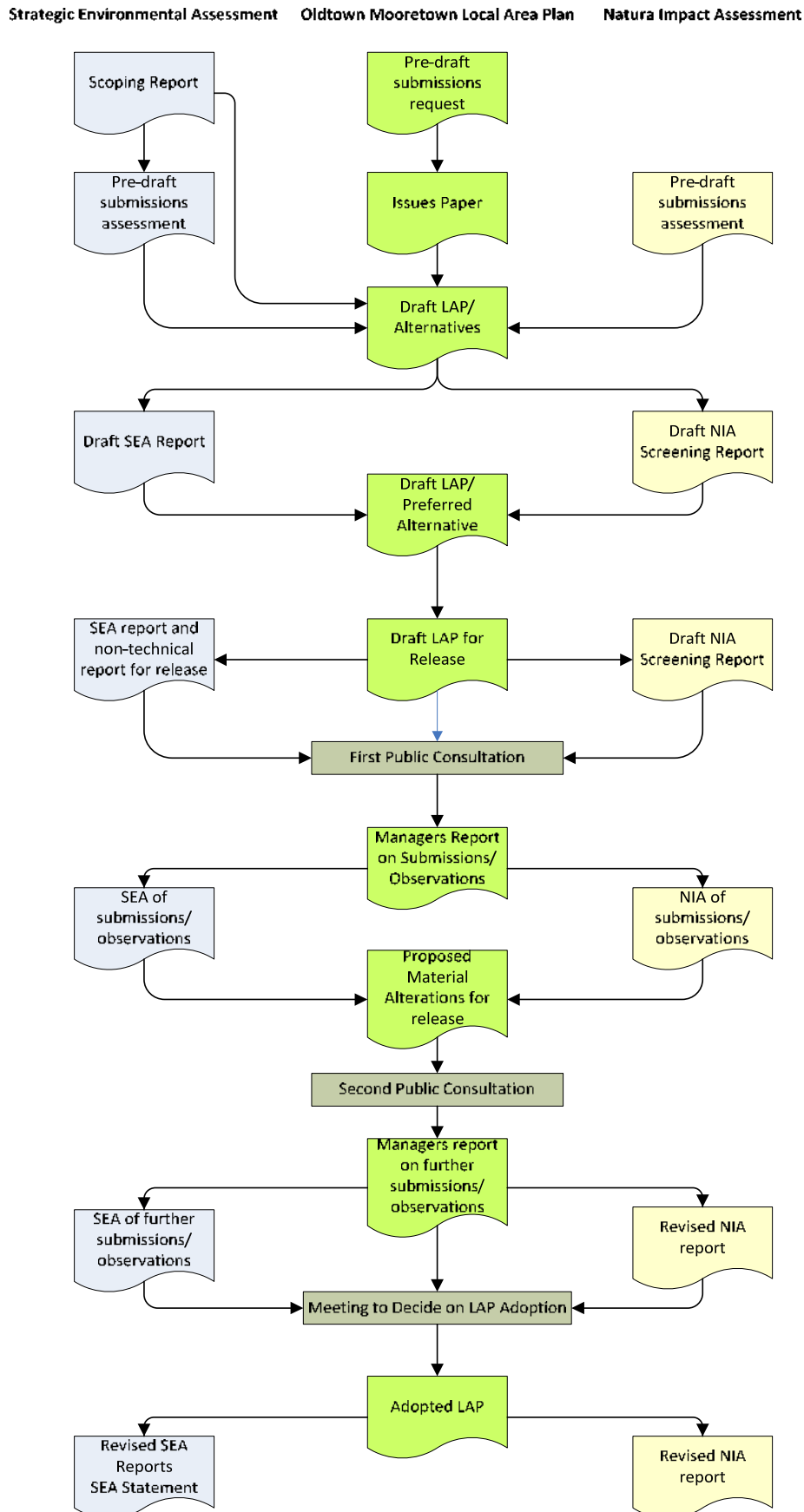
2.1.2 SEA Process

In the context of the production of a LAP, the SEA process comprises the following principal stages:

- **Screening:** to determine which plans are likely to have a significant impact on the environment
- **Scoping:** to liaise with statutory consultees to identify key issues of concern that should be addressed in the environmental assessment of the LAP
- **Assessment:** contains the findings of the assessment on the likely significant effects to the environment of implementing the LAP and describes the monitoring measures for the key effects that were identified
- **Consultation:** to allow for submission from the public and interested bodies on the draft LAP and associated Environmental Report
- **A SEA Statement:** to identify how environmental considerations and consultations have been integrated into the adopted LAP

The development of the LAP, SEA and Natura Impact Assessment (NIA) required as per the Habitats Directive are conducted concurrently and each process contributes to the development of each document at each stage. The iterative process used in the preparation of a LAP, SEA and NIA are presented in Figure 2.1 overleaf.

Figure 2.1: Plan, SEA and NIA Development



The LAP preparation was completed in accordance with Part II, Chapter II, Section 19 of the Planning and Development Acts 2000 - 2010 which provides for the preparation of a LAP for areas which require economic, physical and social renewal and for areas likely to be the subject of large scale development within the lifetime of the plan.

The SEA process was conducted in compliance with the SEA Directive (2001/42/EC) and Planning and Development (Strategic Environmental Assessment) Regulations 2004 (SI No 436 of 2004).

This report should be viewed in parallel with the adopted Oldtown-Mooretown LAP.

2.2 The Environmental Report

The methodology and sources used to gather baseline information, consider alternatives, develop objectives, targets, indicators and complete the environmental assessment are detailed in Chapter 5 and are summarised in Table 2.1 below.

Table 2.1: Relevant Chapters for SEA Key Stages

Key SEA Stages	Chapter of Environmental Report
1. Contextual review to identify links with other International and National policies, local area plans and programmes and their potential influence on the Plan. Identify environmental objectives of relevance to the Plan.	Chapter 3
2. Describe the environmental baseline; identification of the most significant environmental issues and problems to be assessed and consider the likely evolution of the baseline in the absence of the Plan review	Chapter 5
3. Identify SEA objectives, targets and indicators against which to test the performance of the Plan and provide the basis for monitoring	Chapter 9
4. Identify alternatives for dealing with the key environmental issues and for implementing the Plan objectives	Chapter 8
5. Predict, evaluate and mitigate the significant environmental impacts of the Plan	Chapters 10 and 11
6. Consultation: decide who to consult with, how to respond to comments and how to integrate them into the final Plan.	Chapter 6
7. Monitor the environmental impact of implementing the Plan.	Chapter 12

2.3 Development of the Oldtown Mooretown Local Area Plan

The draft Oldtown Mooretown LAP was placed on public display from the 1 April to the 13 May 2010 alongside the SEA Report and the Habitats Directive Assessment. Twenty seven submissions were received and considered by Fingal County Council during this consultation phase. A Managers Report was prepared (dated 12 July 2010) detailing where amendments were proposed to the draft LAP from the submissions received. The report also detailed responses to the submissions where amendments were not proposed. In addition, fourteen motions were made by the Councillors on the draft LAP and a Manager's response was prepared detailing where the Councillors motions were considered and where amendments were recommended.

A SEA report was prepared of the proposed alterations in response to the Manager's Report and Manager's Response to Motions. This SEA report is a requirement under Article 13(g) of the Planning and Development (Strategic Environmental Assessment) Regulations, 2004 (S.I. No. 436 of 2004). It considered the proposed amendments and comprised an environmental assessment against the Environmental Report environmental objectives set out in the draft LAP in April 2010.

The proposed amendments to the draft LAP were presented in "Material Alterations to Draft Oldtown Mooretown LAP" for release from the 27 July to the 24 August.

This constituted the second consultation period. Four submissions were received from the second consultation period (National Roads Authority, EPA, Department of Education and Skills and Department of Communications, Energy and Natural Resources). Only the EPA and Department of Education and Skills made comment on the amendments with no comment from the other two bodies.

No further alterations were made to the draft LAP following the second consultation period and the draft LAP and the material amendments were adopted by Fingal County Council on the 11 October 2010.

Table 2.2: SEA and LAP Stages

Process Stage	Dates
Draft LAP and SEA Environmental Report on first public display	April 2010
Review of Managers Report on first consultation phase submissions	12 July 2010
Variations to draft Plan and SEA report on assessment of amendments	27 July to the 24 August 2010
Adoption of LAP	11 October 2010

3 THE SEA PROCESS: RELEVANT NATIONAL AND INTERNATIONAL POLICY DOCUMENTS, STRATEGIES AND GUIDELINES

3.1 Introduction

A number of different articles of the Planning and Development Regulations 2001-2009 specify the content of an Environmental Report that forms part of the SEA process. These cross-refer to the SEA Regulations' Schedule 2B, which sets out the nature of these requirements in more detail. Paragraph (e) of that Schedule states that the report must contain a discussion of the international, European Union or national environmental protection objectives which are relevant to the LAP, as well as describing the way those objectives and any environmental considerations have been taken into account during its preparation.

The remainder of the chapter will list and summarise the national and international policy documents, strategies and guidelines that are relevant to the SEA process. Most of the documents set out below are specified in Appendix C of the DoEHLG's SEA Guidelines for Regional Authorities and Planning Authorities (2004). More recently published relevant material has also been added as appropriate. Documents that are listed in Appendix C of the DoEHLG Guidelines but which have been superseded have been omitted.

The purpose of the contextual review is to summarise the policy and legislative framework within which the LAP is developed. The LAP must, at a minimum, accord with the relevant requirements of international, European and national environmental policy-making.

3.2 National and Regional Policy Documents

3.2.1 The National Spatial Strategy

The National Spatial Strategy 2002-2020 (NSS) is intended to provide a twenty year strategic planning framework to facilitate the development of a more balanced pattern of social, economic and physical development in Ireland. The NSS was a direct response to the concentration of development in certain areas of Ireland which has tended to occur at the expense of other locations, where economic weakness remains. Its goal is for a more balanced system of regional development, thereby enabling all areas of the country to contribute to their full potential.

The NSS is intended to provide an upper-tier of strategic guidance that feeds into general government policy-making and also into the regional and local development planning framework.

Acknowledging both the critical influence of and the need for consolidation in the greater Dublin region, the NSS supports the development of regional gateways in Cork, Limerick/ Shannon, Galway, Waterford, Dundalk, Sligo, Letterkenny/ Derry and Athlone/ Tullamore/ Mullingar. These gateways are to be supported by nine hubs: Ballina/Castlebar, Cavan, Ennis, Kilkenny, Mallow, Monaghan, Tralee/Killarney, Tuam, and Wexford. In order to further these aims, the NSS sets down a series of policies in relation to employment, housing, rural development, access to services and quality of life/environmental quality.

3.2.2 National Development Plan (NDP) 2007-2013

The National Development Plan (NDP) was published in January 2007, replacing the earlier 2000-2006 plan. It proposes investment of some €184 billion in the economic and social infrastructure of Ireland. Unlike the 2000 NDP, which envisaged an extensive contribution from the EU, the 2006 NDP indicates that funding will be raised mainly from domestic sources. A particular emphasis is placed on economic and social infrastructure deficits in areas such as transport, energy, housing, water supply, education and health. The NDP interlinks with the regional development policies in the National Spatial Strategy, being intended to develop the gateway cities and hub towns to achieve the goals of economic growth in the regions and to provide for major investment in the rural economy.

3.2.3 Transport 21

Launched in 2005, this policy initiative sets down how an intended sum of €34 billion will be spent on Ireland's transportation system. It covers national roads, rail and bus services and regional airports. It relates to the period from 2006 to 2016, comprising two investment programmes – a national programme and a separate programme for the Greater Dublin area.

One of its key objectives is to support the National Spatial Strategy by developing connectivity between the Greater Dublin Area and the identified centres which comprise the NSS' gateways and hubs.

3.2.4 Regional Planning Guidelines

The National Spatial Strategy is required to be reflected in the Regional Planning Guidelines (RPGs) produced by each of eight regions in Ireland. The RPGs act as the key policy bridge between national development priorities and local authority-based planning and are intended to establish policies which translate the content and priorities of the NSS into regional and local policies. The RPGs provide detailed regional level strategic guidance, assisting planning authorities in framing County, City and Local Area Development Plans. The Regional Planning Guidelines for the Greater Dublin Area (covering the areas of the Dublin Regional Authority and the Mid-East Regional Authority) were adopted in July 2004. Revisions to the RPG for the Greater Dublin Area (July 2010) – for the period of 2010 to 2022 – were recently adopted

3.2.5 County, City and Town Development Plans

The Planning Acts 2000-2010 introduces a more tiered and plan-led system for development control, cascading down from national strategies to local area plans.

The Development Plan is the foundation of this system, transposing national and regional policies into practice. The scale, location and nature of virtually all forms of new development is determined within the context of the content of the Development Plan, with compatibility with the Development Plan being a key factor in the consideration of planning applications and appeals. Development Plans have a six year life and replacement plans are required to be drawn up in accordance with the Department of the Environment, Heritage and Local Government's 2007 document Development Plans - Guidelines for Planning Authorities. The Fingal County Development (2005 – 2011), is presently in the process of review.

3.2.6 Local Area Plans

The Planning and Development (Amendment) Act 2010 requires that LAPs be produced for settlements of 1,500 population and more. They may also be developed for areas that are to be located on substantial brown-field or green-field sites. The purpose of LAPs is to guide the sustainable development of the area, thereby avoiding piecemeal and incoherent expansion and ensuring that social or physical infrastructure is provided alongside residential development. LAPs are also intended to give infrastructure providers forward-planning information that is relevant to their investment programmes in future service provision.

3.2.7 Sustainable Development: A Strategy for Ireland

Covering some 200 pages, Ireland's 1997 Sustainable Development Strategy sets down a strategic framework for all of the main sectors of the Irish economy. The key aim of this document, which is developed upon by a number of the other, more recent, national policy documents discussed in this chapter, is to achieve sustainable development by balancing of economic growth with a continued commitment to promoting environmental quality.

3.2.8 Making Ireland's Development Sustainable: Review, Assessment and Future Action

Making Ireland's Development Sustainable: Review, Assessment and Future Action was published as the country's contribution to the World Summit on Sustainable Development in 2002. It is founded on the 1997 report, Sustainable Development: A Strategy for Ireland, being intended to place sustainable development principles more centrally in response to the national environmental challenges associated with economic growth.

3.2.9 The National Climate Change Strategy 2007 - 2012

This National Climate Change Strategy 2007-2012 develops from the 2000 Climate Change Strategy, taking into account the review contained in Ireland's Pathway to Kyoto Compliance (2006). Its purpose is to demonstrate how Ireland is to meet its 2008-2012 Kyoto commitments and to identify further policy measures needed for the period from 2012 and after 2020.

The Strategy shows, sector by sector, how the 2008-2012 commitment is to be met by a range of existing and additional measures which collectively are intended to cause Ireland's greenhouse gas emissions to reduce by over 17 million tonnes of carbon dioxide equivalent. For the period from 2012 to 2020, the Strategy describes a number of possible avenues to respond to the EU's commitment to reduce greenhouse gas emissions by at least 20% of the 1990 level.

3.2.10 Government White Paper – Delivering a Sustainable Energy Future for Ireland

Sub-titled the Energy Policy Framework 2007-2020, this document addresses how Ireland is to respond to international energy supply issues in the context of severe limitations on indigenous fuel supplies. Recognising that 90% of energy is currently imported, the White Paper sets down a series of strategic goals. These include actions relating to security of energy supply, of which the development of additional electrical inter-connectors with other European Countries is a particular priority.

Other measures include ensuring fuel diversity, the upgrading of the national transmission networks, stimulating hydrocarbon exploration and contingency planning in respect of possible energy supply disruption. The sustainable supply and use of energy is also a theme, with policy proposals to address climate change and energy efficiency.

In relation to the use of renewables, a highly ambitious 33% contribution to electricity generation by 2020 is proposed.

3.2.11 Discussion Paper – Strategy to Reduce Emissions of Transboundary Air Pollution by 2010

The Government's 2003 Discussion Paper, entitled "Strategy to Reduce Emissions of Transboundary Pollution by 2010 to comply with National Emissions Ceilings", sets out how Ireland intends to meet its commitment to reduce, by 2010, the level of emissions of four transboundary air pollutants: nitrogen oxides, volatile organic compounds, ammonia and sulphur dioxide. This is a requirement of the 1999 Gothenburg Protocol, as these pollutants contribute to regional acidification, eutrophication and local air pollution across Europe. This commitment is additional to the separate undertakings relating to the Kyoto Protocol. The discussion document summarises the present and future obligations on Ireland, analysing the potential for emission reductions in the context of the economic costs and benefits of the necessary measures. The Paper concludes that meeting the nitrogen oxides and volatile organic compounds limits/targets will be most challenging, with the ammonia and sulphur dioxide targets being met with relative ease.

3.2.12 National Programme for Ireland on Transboundary Pollutants – Update and Revision

The 2007 publication, Update and Revision of the National Programme for Ireland under Article 6(3) of Directive 2001/81/EC for the Progressive Reduction of National Emissions of Transboundary Pollutants by 2010, sets out Ireland's progress in reducing four transboundary air pollutants: nitrogen oxides, volatile organic compounds, ammonia and sulphur dioxide. Significant reductions are documented from the power generation, transport and agriculture sectors and projections suggest that emissions of all four pollutants will continue to fall in the period up to 2010 and beyond. With the exception of nitrogen oxides, Ireland is noted as being on target to comply. However, further additional measures are stated to be required to ensure that the required reduction of nitrogen oxides takes place in accordance with EU law.

3.2.13 National Biodiversity Plan

Ireland's National Biodiversity Plan was launched in April 2002, being prepared as a response to the UN Convention of Biological Diversity. The plan sets down the framework for conservation and the sustainable use of biodiversity over a five-year period. Its fifteen themes and sectors contain 91 detailed actions that are required to further these objectives.

An Interim Review of the National Biodiversity Plan was launched in November 2005. The review documents the progress achieved in respect of the 91 actions of the original National Biodiversity Plan. In total, 23 actions were found to have been implemented, with sixty more where implementation was on-going. Eight actions were found not to have progressed substantially.

A full review of the 2002 Plan was commenced in 2008, with the intention being to produce a second plan for the period up to 2012.

3.2.14 Development Management Guidelines (DEHLG, 2007)

Development Management - Guidelines for Planning Authorities was published in June 2007, replacing the former "yellow book" entitled Development Control Advice and Guidelines which was issued in 1982. These Guidelines are of relevance to all types of planning application, being intended to assist both the technical and administrative staff of planning authorities, as well as applicants and their advisers, on the operation of the planning process. They are also intended to promote best practice within planning authorities. Unlike many of the other guidelines on development control, Development Management - Guidelines for Planning Authorities focuses on the planning process rather than planning policy.

3.2.15 Guidelines on Architectural Heritage Protection

The 2004 document, Architectural Heritage Protection - Guidelines for Planning Authorities, provides relevant guidance in the context of Part IV of the Planning and Development Act 2000 as amended. These guidelines are a response to Section 52 of the Act which requires that guidelines are issued to planning authorities on the need to protect structures of architectural, historical or other importance and on the preservation of the character of Architectural Conservation Areas. These Guidelines contain criteria to be applied when a local authority is selecting buildings for inclusion in its Record of Protected Structures. Guidance is also offered about the issuing of declarations on protected structures, as well as in respect of determining planning applications affecting both protected structures and the exteriors of buildings within Architectural Conservation Areas.

A separate publication originally covered issues relating to churches and cathedrals: Architectural Heritage Protection for Places of Public Worship - Guidelines for Planning Authorities. This has now been included as Chapter 5 of the Architectural Heritage Protection - Guidelines for Planning Authorities.

3.2.16 Guidelines for Planning Authorities - Wind Energy Development

Published in 2004, these Guidelines offer advice to planning authorities on how wind energy should be accommodated in Development Plan policies and on the consideration of applications for planning permission for wind farms. An objective is to ensure a national consistency of approach in the identification of appropriate locations for wind farm development and in the determination of planning applications and appeals. They replaced earlier Guidelines issued in 1996.

3.2.17 Guidelines on Retail Planning

Published in January 2005, Retail Planning - Guidelines for Planning Authorities, sets out national planning policy in relation to the retail-related content of Development Plans and on how planning applications for retail development should be considered. They were a response to the greatly increased demand for retail outlets caused by rapid economic growth, the need for a balance to be struck between the provision of large and small-scale retail units and pressure for the development of out-of-town centres.

3.2.18 Guidelines on Sustainable Rural Housing

Sustainable Rural Housing – Guidelines for Planning Authorities was published April 2005, having relevance to both the content of Development Plans and also to development control and the consideration of planning applications. The Guidelines address the difficult political issue of how strong national demand for rural-based housing should be matched with environmental objectives and the need for sustainable development.

A balance needs to be struck between the need to prevent rural decline against inappropriate development in the countryside which causes negative impacts such as environmental damage, visual intrusion and road safety issues. Overall, the document cautions against the implementation of rigid, over-prescriptive development control policies which fail to take into account local needs.

3.2.19 Guidelines on Telecommunications Antennae and Support Structures

These 1996 Guidelines are intended to assist planning authorities in balancing the need for the comprehensive national provision of telecommunications services against local environmental and public health-related concerns. While upland areas are often favoured for technical reasons, there is an obvious need to consider other relevant impacts; similarly the location of free-standing masts in residential areas or in proximity to schools is discouraged. Mast sharing by different service providers is also stressed.

3.2.20 Guidelines on Quarries and Ancillary Activities

The document Quarries and Ancillary Activities – Guidelines for Planning Authorities was published in April 2004, coinciding with the commencement of Section 261 of the Planning and Development Act 2000. That section introduced a system for the registration of all quarries other than those which had been granted planning permission in the previous five years. Besides providing guidance on the operation of the registration system, this publication also covers the quarry-related policies to be contained in the Development Plan and relevant issues relating to the content and consideration of planning applications for new quarries. The Guidelines contain a series of best practice recommendations, including those relating to noise, dust and vibration management, traffic management, groundwater protection and landscape conservation.

3.2.21 Guidelines on Design Standards for New Apartments

These Guidelines were published in September 2007. They are intended to promote sustainable urban housing, by ensuring that the design and layout of new apartments provide satisfactory accommodation for a variety of household types and sizes, including families with children, over the medium to long term.

3.2.22 Delivering Homes, Sustaining Communities

The 2007 policy statement Delivering Homes, Sustaining Communities provides a key foundation in the policy framework for an integrated approach to housing and planning. Continued strong demand for housing was recognised as presenting major challenges in respect of the planning of new housing and associated services. Sustainable neighbourhoods involve the efficient use of land and quality urban design, effectively integrated with the supply of appropriate physical and social infrastructure.

By providing a quality environment, sustainable neighbourhoods also contribute to the provision of attractive locations to support the NSS' objectives for a more coherent form of future regional development.

3.2.23 Sustainable Residential Development in Urban Areas

These Guidelines were published in December 2008. They addressed a forecast that national housing needs might increase from the current level of 1.8 million units to over 2.5 million by 2020. This very considerable increase in housing stock was acknowledged as needing to be accommodated in a way which supports the development of sustainable, integrated neighbourhoods within Irish cities, towns and villages. The Guidelines describe the key planning principles which must feature in Development Plans and local area plans, and which will later act as reference points in the process of the preparation and assessment of planning applications for residential development in urban areas.

Planning authorities are urged to ensure that an adopted plan is the only effective policy framework within which to consider major development proposals.

3.2.24 Urban Design Manual – Best Practice Guide

This manual is intended to act as a companion document to the Guidelines for Planning Authorities on Sustainable Residential Development in Urban Areas. Published in December 2008, it is intended to provide best practice advice on how the policies contained in the Guidelines should be implemented. It focuses not only on the key issues affecting housing schemes in the 30-50 units per hectare density range, but also on the relevant considerations relating to higher and lower density schemes in urban areas.

3.2.25 The Provision of Schools and the Planning System: A Code of Practice

This Code of Practice was published in 2008, being issued under Section 28 of the Planning and Development Act 2000 as amended. It is intended to ensure that the provision of educational establishments keeps pace with the expansion of residential development. It complements and expands upon earlier guidance on the making and content of development plans.

3.2.26 National Urban Waste Water Study

This study was published in 2005, being the most comprehensive examination of Ireland's public waste water infrastructure. The study involved the collation, mapping, assessment and analysis of urban drainage systems including waste water treatment facilities. An inventory of all waste water infrastructure was prepared, which also covered its condition and performance. Sewerage systems and treatment plant deficiencies were analysed having regard to the relevant legislation and the assimilative capacity of the receiving waters. Recommendations are made in respect of the need for a national programme of waste water infrastructure rehabilitation and guidelines for the funding of future developments are included.

3.2.27 Waste Management: Changing Our Ways

Waste Management - Changing our Ways (1998), sets out a national policy framework for the adoption and implementation by local authorities of their waste management plans. It emphasises the pressing need for Irish waste management to move away from landfill, viewing the ultimate role of landfill as acting as a disposal outlet only for residual waste that cannot be reclaimed or recycled. It specifies that a small national network of regional landfill sites is required, with this network being served by increasing numbers of more localised waste recovery facilities and composting plants. Changing Our Ways reiterates the targets for the progressive reduction of the use of landfill for biodegradable waste which are set down in the EU Landfill Directive but adds further national targets such as for the reclamation of construction and demolition waste.

3.2.28 Preventing and Recycling Waste: Delivering Change

Building on Changing Our Ways, the 2002 policy statement Preventing and Recycling Waste – Delivering Change focuses on the non-landfill alternative waste infrastructure that is required in Ireland, as well as on ways of improving waste handling systems such as segregated waste collection and recycling and waste prevention initiatives. It points to the need to develop a national network of new facilities for the collection, sorting and treatment of recyclables, as well as a series of new biological treatment facilities to process organic and green wastes.

3.2.29 Taking Stock and Moving Forward

Waste Management – Taking Stock and Moving Forward involved a 2004 review of national progress in the development of non-landfill based waste infrastructure. It noted the need for a much greater level of investment in organic waste collection and biological waste processing. This was viewed as particularly necessary as biodegradable waste not only makes such a significant contribution to the municipal waste stream but constitutes material that can be readily recovered. This publication also points to the need to provide additional non-landfill waste management infrastructure for handling commercial and industrial wastes.

3.2.30 National Strategy for Biodegradable Waste

The National Strategy for Biodegradable Waste was published in April 2006, being an obligation on Ireland under the Landfill Directive. An aim is to set out how the three progressive landfill diversion targets of the Directive are to have effect. While significant progress in the development of recycling and waste reclamation initiatives is noted, the continuing national dependency on landfill is described as substantial. It states that a major increase in recycling and biological treatment capacity is necessary in order to facilitate the EU requirements for the diversion of biodegradable municipal waste away from landfill.

3.2.31 The Planning System and Flood Risk Management

The Planning System and Flood Risk Management – Guidelines for Planning Authorities was published in November 2009 requiring that the planning system from national to local levels:

- Avoid development in areas at risk of flooding, particularly floodplains, unless there are proven wider sustainability grounds that justify appropriate development and where the flood risk can be reduced or managed to an acceptable level without increasing flood risk elsewhere;
- Adopt a sequential approach to flood risk management when assessing the location for new development based on avoidance, reduction and mitigation of flood risk; and
- Incorporate flood risk assessment into the process of making decisions on planning applications and planning appeals.

These guidelines require a Strategic Flood Risk assessment to be undertaken, as appropriate for planning at regional strategic levels to local planning applications.

3.2.32 Dublin Agglomeration Noise Action Plan

EU Directive 2002/49/EC relating to the Assessment and Management of Environmental Noise was transposed into Irish law as the Environmental Noise Regulations (S.I. 140 of 2006), aimed at reducing environmental noise. This legislation applies to Fingal as part of the Dublin Agglomeration alongside Dublin City Council, South Dublin County Council and Dún Laoghaire-Rathdown County Council. Noise mapping has been prepared for all roads, railway lines (including Luas lines) and Dublin airport detailing L_{den} and L_{night} predicted noise levels and acceptable levels.

The action plan details actions which will be undertaken by all member authorities during the lifetime of the plan with specific actions for Fingal County Council arising from the Action Plan include the following:

- Relocation of engine testing at Dublin Airport away from boundaries of populated areas
- Application of appropriate land use patterns in the vicinity of flight paths
- Continue engaging with the airport authorities under a stakeholders working group to address airport noise issues.

3.2.33 Pollution Reduction Programmes for Shellfish Waters in Fingal-Louth Region

The EU Shellfish Waters Directive (2006/113/EC) was adopted to protect and improve EU shellfish waters. As part of the Directive, Pollution Reduction Programmes (PRP) are required which establish measures to reduce the risk of pollution in shellfish areas and it provides shellfish water quality limits.

For the Louth and Fingal area, there are four PRPs:

- Carlingford Lough PRP
- Dundalk Bay PRP
- Balbriggan - Skerries PRP
- Malahide PRP

3.2.34 Fingal East Meath Flood Risk Assessment and Management Study

The EU Flood Directive, as previously describes, requires member states to map and establish flood management plans for areas prone to flooding. The Fingal East Meath Flood Risk Assessment and Management (FEM FRAM) study has been established to define existing and future flood risk in the Fingal-East Meath region. This FRAM will also develop a Flood Risk Management Plan (FRMP) defining how the flood risks in the area will be managed.

3.2.35 Eastern River Basin District Management Plan & associated Programme of Measures

Fingal County Council is part of the Eastern River Basin District designated under the Water Framework Directive 2000/60/EC. The River Basin Management Plan 2009 to 2015 was released in 2009 together with the Programme of Measures (PoM). The PoM details measures required for the water bodies designated under the Directive (river, lake, transitional, coastal and groundwater). The measures comprise basic measures required under legislation and the following:

- Measures for high status waters and protected areas;
- Measures for heavily modified and artificial water bodies;
- Supplementary measures; and
- Planned and potential measures.

3.3 Key European Legislation and Policy Documents

Appendix C of the Department of the Environment Heritage and Local Government's Guidelines to Planning Authorities on the SEA process (2004) also contains a short list of key EU legislation.

3.3.1 Habitats Directive

The Council Directive on the Conservation of Natural Habitats and of Wild Flora and Fauna (92/43/EEC) is the most important EU initiative to support national and international biodiversity. Its purpose is to both protect and restore the conservation status of a list of key habitats. For Ireland, these include raised bogs, active blanket bogs, turloughs, sand dunes, machair (flat sandy plains on the north and west coasts), heaths, lakes, rivers, woodlands, estuaries and sea inlets. The Directive requires Ireland and other EU member states to designate these habitats as special areas of conservation (SACs). In conjunction with the Special Protection Areas (SPAs) under the EU Birds Directive, the SACs make up the so-called Natura 2000 network of European sites.

The Directive requires EU states to draw up a preliminary list of candidate SACs and notify these to the European Commission. Once a site's conservation importance has been agreed with the Commission, a system that formalises the designation of the site as an SAC is required to follow. In the interim, the site must be protected and, where necessary after designation, additional conservation objectives addressed. The effects of any plan or project that may significantly impinge upon a site's conservation status must be formally assessed, under Article 6 of the Habitats Directive, by a process commonly termed Natura Impact Assessment.

The Directive is transposed into Irish law by the amended European Communities (Natural Habitats) Regulations 1997 (S.I. No 94 of 1997).

3.3.2 Birds Directive

The Council Directive on the Conservation of Wild Birds (79/409/EEC) obligates EU states to preserve, maintain and re-establish sufficient areas in order to safeguard the habitat for all bird species. Additional requirements are mandated in relation to a list of key bird species set down in the Directive's Annex 1, with EU states being required to designate Special Protection Areas (SPAs) for them. For Ireland, this causes protection to be conferred on such species such as the whooper swan and migratory species such as ducks and geese.

Key wetland areas, especially those which attract large numbers of migratory birds each year, are required to be designated. In a similar manner to the requirements on SACs under the Habitats Directive, plans or projects which are likely to have a significant affect on an SPA are required to undergo an assessment of their environmental implications on the designated site. The Directive is transposed into Irish law by the European Communities (Natural Habitats) Regulations 1997.

3.3.3 Water Framework Directive

Directive 2000/60/EC establishing a Framework for Community Action in the Field of Water Policy was agreed in 2000. It rationalised a number of earlier Directives, taking into account nearly 20 years' experience of water-related EU legislation. The Directive is intended to establish a comprehensive framework for the management of water resources in each EU state, covering inland surface waters, the estuarine and coastal environment and groundwater. Key objectives are to maintain good water quality where it already exists, as well as to cause a substantial improvement where water quality has deteriorated. EU states have to ensure that a co-ordinated approach is adopted for the achievement of the objectives of the Directive. Besides protecting and enhancing water quality and aquatic ecosystems, the Directive is also intended to promote the sustainable use of high quality water resources. The Directive is transposed into Irish law mainly by the European Communities (Water Policy) Regulations 2003 (S.I. No 722 of 2003, as amended).

3.3.4 Urban Waste Water Directive

The Directive concerning Urban Waste Water Treatment (91/271/EEC) came into effect in June 1993. Its purpose is to ensure that aquatic water quality is not negatively affected by uncontrolled urban waste water discharges, such as from sewage treatment plants. It mandates that appropriate collection and treatment systems are put in place by a series of deadlines which relate to the size of an urban area. It also requires secondary treatment be deployed by a series of specified dates. Where the receiving environment is sensitive, and subject to certain exceptions, additional treatment measures need to be put in place. The Directive is transposed into Irish law mainly by the Urban Waste Water Treatment Regulations 2001 (S.I. No 254 of 2001).

3.3.5 Nitrates Directive

The Council Directive concerning the Protection of Waters against Pollution caused by Nitrates from Agricultural Sources (91/676/EEC) was finalised in 1991. Its purpose is to protect all aquatic ecosystems from pollution caused by livestock effluents and the excessive use of fertilisers. These materials all contain significant levels of nitrogen, with the Directive requiring EU states to designate sensitive aquatic environments as nitrate vulnerable zones. Action programmes are to be put in place to safeguard and improve water quality. A code of practice is required to be drawn up, covering relevant protection measures such as appropriate periods for fertilizer spreading and storage vessel construction.

The Directive is transposed into Irish law by the European Communities (Good Agricultural Practice for Protection of Waters) Regulations 2009 (S.I. No 101 of 2009).

3.3.6 Directive on Waste

The Directive on Waste (2006/12/EC) was originally issued in 1975 and revised in 1991. It mandates that EU states publish waste management plans. It requires a system of permits and registrations to be put in place to authorise all waste management infrastructure, as well as setting down the basic requirements that need to be satisfied for these statutory authorisations to be issued.

The Directive is to be entirely replaced by Directive 2008/98, which is required to be transposed into Irish law by 12 December 2010.

3.3.7 Landfill Directive

Besides setting EU-wide standards for landfill design and operation, the Council Directive on Landfill (91/31/EEC) mandates a series of targets to cause a substantial reduction of the landfilling of biodegradable municipal waste by EU countries. Using the amount of biodegradable waste produced by each EU state in 1995 as a baseline, it requires that the proportion of such waste passing to landfill sites is reduced progressively to 35% of the 1995 level over a period of some 15 years. A national strategy is required to be published by each EU member on how this is to be achieved.

3.3.8 European Convention on the Protection of the Archaeological Heritage

The European Convention on the Protection of the Archaeological Heritage was drawn up in Valletta in 1992 and entered into force in 1995. Ireland signed the Convention in 1997. Replacing an earlier Convention that was agreed in 1969, its scope was extended to address damage to archaeological assets resultant from construction projects. It requires signatories to establish legal systems to protect this heritage, setting down the basic scope of the required arrangements. These include requirements on persons conducting archaeological investigations to obtain a permit, that the investigation must be conducted by persons who are duly qualified and that environmental impact statements must embrace archaeological considerations.

3.3.9 Granada Convention for the Protection of the Architectural Heritage of Europe

Ratified by Ireland in 1997, the 1985 Convention for the Protection of the Architectural Heritage of Europe is intended to reinforce and promote policies for the conservation and enhancement of Europe's heritage. The Convention is dual-purpose, involving the promotion of architectural heritage policies while fostering European-wide co-operation measures. Covering monuments, groups of buildings and sites of importance, the Convention requires a national inventory of architectural heritage be developed. Legal protection measures must be established, with a system of formal authorisation being required for works affecting protected sites and structures. Architectural heritage conservation considerations are required to feature in the Convention signatories' town and regional planning processes.

3.3.10 European Landscape Convention

The 2000 European Landscape Convention was adopted in Florence and was ratified by Ireland in 2002. It promotes the protection, management and planning of EU landscapes, being a response to European-wide concerns that the quality and diversity of landscapes were deteriorating. The underlying purpose of the Convention is to encourage public authorities to adopt policies and measures at local, regional, national and international level to protect and manage landscapes throughout Europe. It requires the landscape dimension to feature in a country's spatial planning and environmental policies and for landscape quality objectives to be drawn up.

3.3.11 EU Floods Directive

Directive 2007/60/EC on the assessment and management of flood risks was published in November 2007. The directive required all member states to assess all water courses and coast line at risk of flooding. It required them to map flood extents and assess the risk to assets and humans in these identified areas.

The Directive requires preliminary assessments to be completed by 2011, identification of river basins and associated coastal areas at risk of flooding. Flood risk maps are required to be prepared by 2013 with flood management plans prepared by 2015.

3.3.12 Environmental Liabilities Directive

Directive 2004/35/EC on environmental liability with regard to the prevention and remedying of environmental damage was adopted in April 2004. Environmental damage is defined under the Directive as:

- direct or indirect damage to the aquatic environment covered by EC water management legislation;
- direct or indirect damage to species or natural habitats protected by the Birds Directive and the Habitats Directive; and

- direct or indirect land contamination which creates a significant risk to human beings.

The principle of the directive applies to environmental damage and risk of damage resulting from activities. The Directive has two situations to deal with different liabilities:

- the first scheme relates to dangerous or potentially dangerous activities which require a licence under the Directive or integrated pollution prevention and control (IPPC) activities; and
- the second scheme applied to all occupational activities other than those under the first scheme where there is damage or imminent threat of damage to species or natural habitats designated under EC legislation.

3.4 International Conventions and Treaties

3.4.1 [Agenda 21](#)

Agenda 21 was the main outcome of the United Nations' Conference on Environment and Development that was held in Rio de Janeiro in 1992. That Conference endorsed the concept of sustainable development, requiring that economic growth must be compatible with the needs of both present and future generations and that environmental protection should form an integral part of the development process. These principles are required to be supported by a precautionary approach, which ensures that an absence of complete scientific certainty is not a justification for postponing measures to prevent environmental degradation. The key role of environmental impact assessment is stressed in respect of activities that may have a significant affect on the environment. Local Agenda 21 aims to promote sustainable development at local and regional level.

3.4.2 [Kyoto Protocol](#)

The Kyoto Protocol is an agreement made under the United Nations' Framework Convention on Climate Change. It was signed in December 1997 and entered into force on 16 February 2005. Its objective is to substantially reduce greenhouse gas emissions as a response to climate change. Developed countries, the so-called Annex I states, have to reduce their greenhouse gas emissions by a collective average of 5% below their 1990 levels. An Annex I country which fails to meet its Kyoto obligation is subject to possible penalties, although the Protocol also makes provision for flexible mechanisms which permit the purchasing of greenhouse gas emission allowances from other states. The National Climate Change Strategy sets out how Ireland is participating in this process.

3.4.3 [Johannestown Plan of Implementation](#)

This international policy initiative sets out an action plan for the implementation of the activities adopted at the World Summit on Sustainable Development in 2002. It covers topics such as poverty eradication, changing unsustainable patterns of production and consumption, managing natural resources, sustainable development and other aspects of the implementation of Agenda 21.

3.4.4 UN Convention on Biological Diversity

The UN Convention on Biological Diversity was a direct result of the Earth Summit in Rio de Janeiro. It came into force in 1993, being ratified by Ireland in 1996. Its objective is the conservation of global biodiversity, as well as to ensure equitable access to the world's genetic resources. It requires each party to develop strategies, plans or programmes for the conservation and sustainable use of biological diversity and that these should be integrated into other national initiatives that may have biodiversity implications. Monitoring programmes and appropriate designations for protected areas must be established, while undesirable alien species which threaten ecosystems should be controlled. In April 2002, the Parties to the Convention committed themselves to achieve, by 2010, a significant reduction of the current rate of biodiversity loss at global, regional and national levels.

3.4.5 OSPAR Convention

The purpose of the 1992 OSPAR Convention is to encourage international cooperation to protect the marine environment of the North-East Atlantic. It replaced the earlier 1972 Oslo Convention on dumping waste at sea and the 1974 Paris Convention on land-based sources of marine pollution. It was ratified by Ireland in 1997 and entered into force in 1998. Convention signatories are required to take steps to prevent and eliminate marine pollution and to protect the maritime area, thereby safeguarding human health and conserving marine ecosystems. Where practicable, damaged marine areas are to be restored. Both the precautionary principle and polluter pays principle are to apply. All possible steps are to be taken to prevent and eliminate pollution from land-based sources, with joint assessments of the quality of the marine environment being undertaken by party states.

3.4.6 ESPOO Convention

The Convention on Environmental Impact Assessment in a Transboundary Context is also known as the ESPOO (EIA) Convention. The Convention entered into force in September 1997, being ratified by Ireland in 2002. It requires Parties to put in place appropriate and effective measures to prevent, reduce and control significant adverse transboundary environmental impacts from proposed industrial and other activities.

This must be achieved in the context of each country having legal and other measures in place to ensure that specified projects which may cause significant adverse transboundary impacts are subject to environmental impact assessment (EIA) prior to any formal approval being granted on their commencement. States that may be affected by a proposed project must be notified and may participate in the EIA process. The Convention also promotes EIA procedures being extended to cover not only projects but also a state's policies, plans and programmes.

3.4.7 Protocol on Strategic Environmental Assessment (SEA)

The Protocol was adopted at a meeting of the Parties to the ESPOO Convention on 21 May 2003 during a Ministerial Environment for Europe Conference in Kiev. It develops from the ESPOO Convention by requiring parties to evaluate the environmental and health-related consequences of their official draft plans and programmes using strategic environmental assessment (SEA). It was signed by Ireland in 2003.

3.4.8 UNESCO Convention concerning the Protection of the World Cultural and Natural Heritage

This Convention was drawn up in 1972 and ratified by Ireland in 1991. It covers not only monuments, groups of buildings and sites which have outstanding universal value but also natural sites of major importance. Parties are required to identify these locations and to ensure that they are protected and conserved for future generations. A World Heritage Committee has been established to approve the inclusion of individual Convention party states' proposals onto a World Heritage List.

4 OLDTOWN MOORETOWN LOCAL AREA PLAN 2010

The current Fingal County Development Plan (2005-2011) has zoned the lands at Oldtown-Mooretown as RS1 *"to provide for new residential communities in accordance with approved local area plans and subject to the provision of the necessary social and physical infrastructure"*. A small section of the lands in the south eastern corner are zoned RS *"to provide for residential development and to protect and improve residential amenity"*. These lands will be incorporated within the framework of the LAP.

4.1 Description

It is estimated that the Oldtown Mooretown LAP will facilitate approximately 3,400 residential units (1,600 at Oldtown and 1,800 at Mooretown), equating to an approximate new population in the region of 10,000 on the west side of Swords. This population will be supported by a range of community services, open space and physical infrastructure, which will be developed in tandem with the growth of the area. The proposed LAP strategy is provided in Figure 4.1.

The LAP lands are primarily agricultural. The lands at Mooretown, south of the Rathbeale Road, comprise a significant number of trees and hedgerows. Lands at Oldtown, to the north, contain large fields with few subdivisions. The Broadmeadow River lies to the north of the LAP boundary.

A limited number of individual residences and commercial premises are located on the lands adjoining the Rathbeale Road, and two temporary school facilities are located north of the Rathbeale Road, at the termination of the Glen Ellan Distributor Road Extension. The temporary schools have been granted planning permission and a permanent structure will be built in due course to the east of the temporary location.

Access to the Mooretown lands is generally restricted to agricultural and individual residential access points only from the Rathbeale Road. Lands at Oldtown are accessible by an extension to a local distributor road known as the Glen Ellan Distributor Road, which traverses this landbank.

The strategic vision for the LAP is that *"The Oldtown-Mooretown lands will be developed in a coordinated, sustainable way, as a unique urban extension connected to the existing town of Swords - a place with its own character and identity, where people can live, work, recreate and access various local services within a well defined area and be part of a sustainable community. The landscape and associated significant archaeological remains in this area present a unique opportunity for the creation of a quality amenity and historical reference point in the changing environment, a resource which will inspire and shape the evolving character and identity of this area."*

The LAP proposes to provide this vision with the following:

- Residential development across the LAP lands, providing definition at the edges of the parks within and adjacent the LAP lands.
- Protection of the residential amenities of existing neighbourhoods adjacent to the LAP lands, by means of appropriate separations distances, back-to-back building arrangements and height limitations.
- Significant archaeological discoveries within the Oldtown-Mooretown LAP lands will be integrated into the development of this area through the identification of a network of interconnected Archaeological Parks. These parks will form a key part of a recreational and historical route linking the lands internally and with the surrounding area.
- Two school campuses, one in Oldtown and a larger one in Mooretown serving the existing and proposed population.
- Landmark buildings will be supported at strategic locations in the urban fabric to aid legibility and provide interest. These are not necessarily taller buildings, and can be landmark in terms of the differing form and materials related to them, in order to be distinctive in their environments. The school buildings, as key landmark buildings, shall play an important civic role in the urban environment of the village. The Local Centres shall also be made distinctive by their mix of uses and architectural character.

- Two Local Centres will form the focal points within both Oldtown and Mooretown respectively, each one located proximate to the Western Distributor Link Road (WDLR), in a highly visible location, easily accessible by all modes of transport, in particular pedestrians/cyclists, and proximate to schools and open spaces to support multi-purpose trips as much as possible. These centres will be important in creating/supporting community identity.
- Development of the WDLR, forming the north-south spine of transport infrastructure, with a hierarchical network of existing and new streets linking east-west from this route.
- Direct and well designed pedestrian and cyclist routes within 'green corridors' will complement the vehicular network, with the issue of personal safety influencing their relationship with the built environment.
- A Green Corridor will facilitate key links to Swords Regional Park, Broadmeadow Linear Park, Rathbeale Archaeological Park, school sites, local centres, movement east to Swords town centre through existing areas and movement south along WDLR to connect to the Ward River Valley Park.
- Important nodes, landmark buildings and key defining features will give prominence to the important routes of the Main Streets within the scheme and entrances from the Rathbeale Road.

4.2 Oldtown Mooretown LAP Strategic Framework and Goals

The purpose of the Oldtown-Mooretown LAP is to provide the optimal future development strategy for these lands in order to ensure the proper planning and sustainable development of this area. The LAP will clearly establish the parameters for the future development of the subject lands.

The strategic vision for the lands is;

The Oldtown-Mooretown lands will be developed in a coordinated, sustainable way, as a unique urban extension connected to the existing town of Swords - a place with its own character and identity, where people can live, work, recreate and access various local services within a well defined area and be part of a sustainable community. The landscape and associated significant archaeological remains in this area present a unique opportunity for the creation of a quality amenity and historical reference point in the changing environment, a resource which will inspire and shape the evolving character and identity of this area.

The Oldtown-Mooretown LAP sets out a development strategy for the proper planning and sustainable development of the plan lands, which will address issues relating to:

- Phased and integrated development of LAP lands, primarily for residential use, with a supporting level of mixed uses to serve the needs of the area and support the development of a sustainable community;
- Creation of a permeable and legible movement network for all modes of transport linking the site internally and with the surrounding area;
- Provision of high quality recreational open space and amenity facilities to meet needs of the expanding population in this area;
- Increase in community facilities and health care facilities, in particular provision of additional schools;
- Enhancement and preservation of existing archaeological sites and increase in appropriate usage and public acknowledgement of such sites; and
- Enhancement and protection of existing environmental features within the plan lands and Broadmeadow Linear Park north of the plan lands.

5 STRATEGIC ENVIRONMENTAL IMPACT ASSESSMENT OF THE OLDTOWN MOORETOWN LOCAL AREA PLAN 2010-2016

Schedule 2B of the SEA Regulations prescribes the information that must be contained in an SEA environmental report. This is illustrated in Figure 5.1 and described in this section.

Figure 5.1: Assessment Process



5.1 Baseline Description

Schedule 2B of the SEA Regulations requires details on the current state of the environment. The regulations require an assessment of the evolution of the environment in the absence of the LAP and identification where data is not available.

The baseline description has been conducted in line with the SEA Directive and national legislation and focuses on biodiversity (flora and fauna), population and human health, geology and soils, water, air and climate, material assets, cultural heritage, landscape and interrelationships between topics.

The baseline description contains the following details:

- Description of the current state of the environment
- The primary environmental issues of relevance to the LAP
- The evolution of the environment in the absence of the LAP
- The interaction between environmental topics.

As this SEA deals with a LAP, the baseline data is focused at a local scale. The baseline has been compiled using all available datasets and in conjunction with indicators suggested during scoping. The main sources of data used in the compilation of this baseline were (amongst others):

- Scoping responses from the environmental authorities
- Existing databases such as the EPA, Geological Survey of Ireland (GSI), Fingal County Council and the Central Statistics Office (CSO)
- Information supplied by Fingal County Council during the SEA.

5.2 Setting Environmental Objectives, Targets and Indicators

Section (e) of Schedule 2B of the SEA Regulations requires environmental protection objectives, targets and indicators to describe and monitor change and predict impacts of the proposed LAP on the environment. In SEA, the level of detail used to describe the baseline is much less refined than in environmental impact assessment (EIA). SEA uses a combination of objectives, targets and indicators to describe and monitor change and predict impacts of proposed plans and programmes on the environment (Therivel, 2004).

Objectives and targets set aims and thresholds that should be taken into account when assessing the impact of a proposed LAP on the environment. Indicators are used to illustrate and communicate impact in a simple and effective manner. Indicators can also be used to form the basis of a monitoring programme for the LAP, the results of which will inform the next review. The proposed monitoring programmes for each of the environmental topics will be outlined in more detail in Chapter 12.

As part of this report, two assessments have been carried out:

- An examination of the 'internal' compatibility of the SEA environmental objectives to identify potential areas of conflict in relation to each objective
- Examination of the compatibility of the SEA environmental objectives and the LAP policies and objectives to identify potential areas of conflict between the LAP and the SEA.

The following section of the report sets out the environmental objectives, targets and indicators for the environmental aspects that are likely to be significantly affected by the LAP.

5.3 Significance Testing

The objective of this section is to determine the 'likely significant' effects of the LAP on the environment. The assessment methodology adopted here is based on the environmental objectives (Chapter 9) and the LAP objectives (as set out in the various chapters of the Plan). The environmental objectives of water, biodiversity, cultural heritage and landscape, human health, soils, geology, air and climate are individually assessed against the LAP objectives in relation to:

- Strategic Context
- Development Plan Strategy
- Demographic and Socio-economic Trends
- Housing and Community Facilities
- Economic Development and Retail Strategy
- Recreation Tourism and the Arts
- Heritage
- Infrastructure and Environment
- General Location and Pattern of Development and Land-use
- Requirements for New Development

5.3.1 Assessment criteria

The assessment criteria used here are based on the determination of the 'likely significant' impacts of the Plan's policies and objectives on the environmental objectives. The likelihood of an impact occurring on any of the environmental objectives is determined and the significance and duration of the likely impact is then determined. The following criteria have been used to determine the significance of an impact:

Positive or negative impacts

A positive impact improves the quality of the environment by, for example, improving water quality, protecting sensitive habitats, or providing amenities for people.

A negative impact diminishes the quality of the environment by, for example, reducing species diversity or habitat loss, reducing air quality or water quality. A negative impact can be sufficiently minimised or eliminated by the adoption of appropriate mitigation measures.

Long-term and short-term impacts

A short-term impact will usually last for the duration of a project for example the construction of a road or a wastewater treatment plant.

A long-term impact is normally the residual impact that remains after mitigation measures have been put in place. It may last 10 years or longer.

Significant impact

The likely significant effects of the implementation of the LAP on the environment, including impacts on biodiversity, population, human health, ecology, soil, water, air and climate, cultural heritage, landscape and the interaction of the above, must be investigated. The effects of the Plan on these topics should include quantification of the impacts as short-term, long-term, temporary, permanent and positive and negative.

The overall significance of an impact is dependant upon two factors – the size of the disturbance caused (magnitude) and the sensitivity of the receptor. The sensitivity of a receptor may be based on the legal status of a site, for example, a Natura 2000 site or a Natural Heritage Area. It may also be based on the proximity to population centres, schools, hospitals etc or it may be based on the importance of a resource, for example, groundwater for public drinking water supply or a site of archaeological importance. The magnitude of an impact will be dependant upon its duration and frequency.

Some policies or objectives listed in the LAP, for example, the provision of adequate wastewater treatment facilities, will have positive and negative, temporary and permanent and short-term and long-term impacts. The negative, temporary and short-term impacts will arise during the construction of the facility. The positive, permanent, long-term impacts will arise from the operation of the wastewater treatment plant to ensure compliance with regulatory wastewater quality standards. This will ensure that water quality in the receiving water body will maintain good quality status or improve to good water quality status by 2015.

Where the environmental impact of the policy or objective is uncertain its impact is assessed as Uncertain.

5.4 Mitigation Measures

Section (g) of Schedule 2B of the SEA Regulations requires information on the mitigation measures that will be put in place to minimise/eliminate any significant adverse impacts due to implementation of the LAP.

Mitigation measures are required to eliminate/ remediate/ reduce significant negative environmental impacts. Based on the source/pathway/receptor concept where an environmental burden (e.g. water pollution, air pollution) can impact on a receptor e.g. human, water, biodiversity or landscape via particular pathways these significant impacts can be mitigated at:

- Source e.g. avoid the impacts at source
- Pathway e.g. reduce the magnitude of the impact
- Receptor e.g. compensate for the impact by providing an alternative

A number of the international and national environmental policies, for example, the Habitats Directive, the Water Framework Directive, the EPA's Code of Practice for Unregulated Landfill Sites, the Department of the Environment Heritage and Local Government Guidelines for Wind Energy for Planning Authorities and the EPA's Guidance Note for Wastewater Treatment Systems for Once-off Housing, have listed appropriate mitigation measures to minimise the impacts on the environment.

5.5 Monitoring Measures

Under Article 10 of the SEA Directive, monitoring is required in order to identify at an early stage any unforeseen adverse effects due to implementation of the LAP, and to be able to take remedial action. Monitoring allows the actual impacts of the LAP to be tested against those that were predicted. It allows major problems to be identified and dealt with in a timely fashion, and environmental baseline information to be gathered for future LAP reviews. It also ensures that proposed mitigation measures are carried out and that no unforeseen impacts occur (Therivel, 2004).

The methodology used in the development of this monitoring programme is based on the use of indicators and targets, assignment of responsibilities, setting of appropriate time lines and intervention in the event of an unforeseen occurrence.

Monitoring is carried out by reporting on the set of indicators and targets drawn up previously (Chapter 12) and used to describe future trends in the baseline, which enable positive and negative impacts on the environment to be measured. The indicators that are used show changes that would be attributable to implementation of the LAP. In particular, the indicators can also in certain circumstances act as an early warning system should unforeseen impacts occur or conditions deteriorate further or faster than anticipated. For example, water quality indicators describe trends in both improvements and deterioration in water quality. If quality targets are not being reached and water is seen to be unexpectedly deteriorating immediate intervention will be required.

5.5.1 Responsibilities

Fingal County Council will be responsible for the implementation of the monitoring programme in relation to the Plan.

5.5.2 Sources of information

Monitoring will focus on aspects of the environment that are likely to be significantly impacted by the LAP. Indicators and targets have been identified for the main environmental issues in the LAP lands, namely water, biodiversity, cultural heritage and landscape. The indicators chosen are at a level, which is relevant to the LAP, and are collated and reported on by a variety of government agencies, such as EPA, OPW, National Parks and Wildlife Services and different sections within Fingal County Council.

The format for the monitoring programme for this LAP is detailed in relation to relevant indicators, targets and frequency of monitoring, point at which additional action may be required and what type of intervention is required if a problem is identified.

Based on the information above it can be seen that all of the indicator information required is already being actively collected and reported at a level sufficient to meet the needs of the LAP. The frequency of monitoring is set, the point at which additional action and its form are also detailed.

5.5.3 Frequency of Reporting

It is recommended that Fingal County Council carry out a mid-term review of performance against SEA Objectives in 2013 using the most recent information such as the EPA's State of the Environment Report. It is further recommended that reporting on the overall monitoring of the Plan is made to the EPA SEA Section.

5.6 Identification of significant gaps in environmental information

The SEA Regulations requires any difficulties encountered during the preparation of the SEA report to be recorded. Where information gaps arise during review of baseline information, these are identified in Section 7 of this report.

6 CONSULTATION

Under the SEA Directive there is a very strong emphasis on consultation. The Directive clearly sets out who should be consulted with, how the results should be considered in environmental decision-making and how the process should be reported. In particular, environmental authorities and the public are to be given 'early and effective' opportunity within appropriate time frames to comment on the LAP and SEA. In addition, a statement is produced on LAP adoption detailing how their opinions have been addressed in the report.

In this SEA, consultation has played a strong role at all stages in the process including the scoping phase as well as during the preparation of this report. The report was made available to the elected members of Fingal County Council and the public at the first consultation period. After the statutory consultation period, the SEA report took all comments received into account and was amended where appropriate. As a final stage, an SEA Statement was prepared outlining how the findings of the process were taken into account and integrated into the LAP.

6.1 Scoping Consultation

Under Article 13D of the SEA Regulations 2004, there is a requirement on Fingal County Council to give notice to the environmental authorities and scope the SEA. Section (c) of this article allows the environmental authorities to make a submission or observation on the information to be included in the SEA report. Fingal County Council has used this stage to consult with the prescribed environmental authorities and other potentially interested bodies prior to preparing this report.

The inclusion of the views and opinions of these various sections has been ongoing and central in the preparation of this Environmental Report. A schematic of this process is shown below in Figure 6.1.

Figure 6.1: Oldtown Mooretown LAP Scoping Consultation



The SEA Directive makes provision for consultation with the following prescribed bodies during the process:

- Prescribed environmental authorities
- Transboundary consultation
- The general public

In this SEA, the prescribed environmental authorities are:

- the Environmental Protection Agency
- the Development Applications Unit, Department of the Environment, Heritage & Local Government
- the Co-ordination Unit, Department of Communications, Marine & Natural Resources

Additional consultees to the SEA process were selected based on the potential significant impacts from the plan and the most relevant bodies to advise on these impacts:

- Office of Public Works
 - Flooding section
 - Heritage section
- Eastern Regional Fisheries Board
- Eastern River Basin District

The following personnel from Fingal County Council and third party specialists were also involved in the scoping of this report;

- Brendan Colgan, Water Services, Fingal County Council
- Nenad Milenkovic, Water Services, Fingal County Council
- Patrick Opdebeeck, Moylans (Sustainable Urban Drainage Systems)
- Seamus MacGearailt, Roughan O'Donovan (Traffic and road layout).

A scoping letter was sent to a list of consultees (statutory and interested bodies) in February 2010. This letter is provided in Appendix 1.

6.1.1 Scoping Responses

Eastern Regional Fisheries Board

A response was received from the Eastern Regional Fisheries Board (ERFB) dated the 10 February 2010. The following highlight the main issues identified in the response:

- In determining the likely significant effects of the Oldtown-Mooretown LAP, regard should be had to the need for the sustainable development of the inland and marine fisheries resource (including the conservation of fish and other species of fauna and flora, aquatic habitats and the biodiversity of inland and marine water ecosystems). Consideration should be given to potential significant impacts on:
 - Water quality
 - Surface water hydrology
 - Fish spawning and nursery areas
 - Passage of migratory fish
 - Areas of natural heritage importance including geological heritage sites
 - Biological Diversity
 - Ecosystem structure and functioning
 - Sport and commercial fishing and angling
 - Amenity and recreational areas
- They advocate comprehensive consideration of aquatic ecological protection in the development of any LAP for this area.
- It is essential that the Board be contacted in relation to all works that may have an impact on surface waters (as per Planning and Development Regulations, 2001, Section 28).
- The disturbance of riparian habitats should be minimised. An undisturbed buffer zone between development area and river bank should be maximised (10m minimum as per GSDSD recommendations).
- Riparian vegetation should be retained in as natural a state as possible at all times.
- The Board would welcome the designation of lands adjacent to surface waters, particularly salmonid systems as areas of open preservation allowing protection / enhancement of biological diversity while providing open space and recreational amenity for river users. Natural heritage objectives should include maintenance of buffer zones of at least 10m from the water's edge along both banks of the surface waters in the LAP area.

- A Council commitment to reject proposals that would interfere with natural floodplains would greatly benefit both aquatic and riparian features in the surrounding areas.
- The implementation of a SUDS design for surface water disposal in any areas of increased urbanisation is a positive indicator of the Council's intention for the sustainable development of the area and should, in conjunction with good management of the site, aid in flooding and pollution management. Policies and recommendations made under the Greater Dublin Strategic Drainage Study (GSDSDS) should be applied in development of a drainage strategy for the LAP under consideration.
- The issue of climate change should be comprehensively considered and integrated into the final LAP.
- LAP must address the need to meet Water Framework Directive objectives for all surface waters in the region.
- Requirements for the Protection of Fisheries Habitat during Construction and Development Works at River Sites" (<http://www.fishingireland.net>). This document should be consulted by any stakeholder when planning to undertake river or riparian works in the ERFB area.
- It is essential to note that sufficient treatment capacity must be available both within the receiving sewerage system locally and downstream at the relevant Waste Water Treatment Plant throughout the life of the LAP in order that the ecological integrity of the ultimate receiving water (Broadmeadow Estuary) is protected.
- It is essential that infrastructural development (such as local sewerage system capacity) should precede actual development at all times.

Environmental Protection Agency

A response was received from the Environmental Protection Agency (EPA) dated the 08 March 2010. An initial comment from the EPA stressed that although the LAP applied to the Oldtown Mooretown lands, the environmental assessment should be considered in a wider Swords catchment. The main points of the submission are presented below.

- Clarification

To what extent does the proposed LAP incorporate rezoning of Green Belt Lands? In the event that this is the case, such rezoning should be considered in the context of existing unoccupied residential housing stock and the likely predicted future uptake in housing during the lifetime of the Plan.

In addition to the issues identified in your correspondence, and highlighted in the EPA Scoping Guidance, and SEA Pack documentation, consideration should also be given to incorporating into the LAP, as appropriate, the following:

- Fingal County Noise Action Plan
- Air Quality Monitoring Data
- Climate Change – Mitigation Measures and Adaptation
- Energy Conservation
- Water Conservation
- County Waste Management Plan
- Recommendations of Shellfish Waters Pollution Reduction Programmes in the Louth-Fingal Region, (Skerries / Balbriggan and Malahide).
- FEM FRAMS Recommendations
- Cumulative Effects / In-Combination Effects other ongoing Plans / Programmes
- Eastern River Basin District River Basin Management Plan
- Biodiversity – Broadmeadow River, Broadmeadow Estuary, ecological linkages such as hedgerow networks & trees (both individual / groups).
- Water Quality (WFD & EPA classifications)
- Flood Risk Assessment
- Appropriate Assessment
- Traffic Management
- Groundwater Protection

- Loss of Agricultural Land / Soil Loss
- Infrastructure Requirements
- Predicted Population Targets
- Waste water treatment Capacity

- Appropriate Assessment

A determination for the requirement for an Appropriate Assessment of all Land Use Plans and related variations/amendments should be made in consultation with the Department of Environment, Heritage and Local Government - National Parks and Wildlife Service, and this should be highlighted in the Plan.

The Plan, should promote the setting up of procedures to ensure compliance with the requirement of Article 6 of the Habitats Directive.

Department of Environment Heritage and Local Government

A response was received from the DoEHLG with comments on consideration of built heritage.

Table 6.1: Consultees Responses to Scoping Report

Issue	Comment
Eastern Regional Fisheries Board	
<p>In determining the likely significant effects of the Oldtown-Mooretown LAP, regard should be had to the need for the sustainable development of the inland and marine fisheries resource (including the conservation of fish and other species of fauna and flora, aquatic habitats and the biodiversity of inland and marine water ecosystems). Consideration should be given to potential significant impacts on:</p> <ul style="list-style-type: none"> • Water quality • Surface water hydrology • Fish spawning and nursery areas • Passage of migratory fish • Areas of natural heritage importance including geological heritage sites • Biological Diversity • Ecosystem structure and functioning • Sport and commercial fishing and angling • Amenity and recreational areas 	<p>The LAP proposes the following objectives "Support the Water Framework Directive in implementing the Eastern River Basin District Management Plan and the program for measures for the Broadmeadow River", and "Protect and manage existing watercourses within the plan lands and provide riparian corridors alongside these corridors". These objectives ultimately relates to the protection of the Malahide Estuary as surface water quality from the site is assured.</p>
<p>We would advocate building on this improvement through comprehensive consideration of aquatic ecological protection in the development of any LAP for this area.</p>	<p>The LAP proposes the following objectives: "Support the Water Framework Directive in implementing the Eastern River Basin District Management Plan and the program for measures for the Broadmeadow River", "Protect and manage existing watercourses within the plan lands and provide riparian corridors alongside these corridors" and Riparian zones of 10 m (minimum) are required for streams on site maintaining the existing riparian vegetation'. These objectives ultimately relates to the protection of the Malahide Estuary as surface water quality from the site is assured.</p>
<p>It is essential that the Board be contacted in relation to all works that may have an impact on surface waters (as per Planning and Development Regulations , 2001, Section 28).</p>	<p>It is recommended that the Board's request for contact on all such works be included in the Plan. This recommendation will be detailed in Section 12 Mitigation Measures</p>
<p>The disturbance of riparian habitats should be minimised. An undisturbed buffer zone between development area and river bank should be maximised (10m minimum as per GSDSDS recommendations).</p>	<p>Under "Green Corridors and Class 2 Open Spaces", a green corridor of 10 m is being recommended on either side of the stream. There is also a specific objective to "Protect and manage existing watercourses within the plan lands and provide 10m riparian corridors alongside these corridors".</p>

Issue	Comment
Riparian vegetation should be retained in as natural a state as possible at all times	This recommendation will be included in the proposed riparian zone mitigation recommended above.
The Board would welcome the designation of lands adjacent to surface waters, particularly salmonid systems as areas of open preservation allowing protection / enhancement of biological diversity while providing open space and recreational amenity for river users. Natural heritage objectives should include maintenance of buffer zones of at least 10m from the water's edge along both banks of the surface waters in the LAP area.	As above, a green corridor of 10 m is being recommended on either side of the stream. This requirement is strengthened in the LAP through objective for specific riparian corridors and will be detailed in Section 12 Mitigation Measures.
A Council commitment to reject proposals that would interfere with natural floodplains would greatly benefit both aquatic and riparian features in the surrounding areas.	The floodplains are identified as open space along the Broadmeadow River within the Broadmeadow Linear Park, designated under Objective Swords 17 as part of the Swords Variation 29 (adopted July 2008). No development is allowed within floodplain area.
The implementation of a SUDS design for surface water disposal in any areas of increased urbanisation is a positive indicator of the Council's intention for the sustainable development of the area and should, in conjunction with good management of the site, aid in flooding and pollution management. Policies and recommendations made under the Greater Dublin Strategic Drainage Study (GSDSDS) should be applied in development of a drainage strategy for the LAPs under consideration.	The SUDS design as part of the LAP is based on the recommendations of the GSDSDS.
The issue of climate change should be comprehensively considered and integrated into the final LAP.	Climate change is not considered explicitly as part of the LAP. A recommended objective relating to climate change will be prepared as part of Section 12 Mitigation Measures.
LAP must address the need to meet WFD objectives for all surface waters in the region.	The LAP includes the following objective "Support the Water Framework Directive in implementing the Eastern River Basin District Management Plan and the programme for measures for the Broadmeadow River"
Requirements for the Protection of Fisheries Habitat during Construction and Development Works at River Sites" (http://www.fishingireland.net). This document should be consulted by any stakeholder when planning to undertake river or riparian works in the ERFB area.	This recommendation will be will be prepared as part of Section 12 Mitigation Measures.

Issue	Comment
It is essential to note that sufficient treatment capacity must be available both within the receiving sewerage system locally and downstream at the relevant Waste Water Treatment Plant throughout the life of the LAP in order that the ecological integrity of the ultimate receiving water (Broadmeadow Estuary) is protected. It is essential that infrastructural development (such as local sewerage system capacity) should precede actual development at all times	The Swords WWTP is being upgraded to 90,000 p.e. and the Plan requires that utilities precede development in a phased approach. There is no requirement for additional objectives.
Environmental Protection Agency	
Fingal County Noise Action Plan	The lands at Oldtown and Mooretown do not appear to experience “undesirable” levels of noise from traffic (Dublin Agglomeration Action Plan relating to the Assessment and Management of Environmental Noise). However the dominant noise levels in Fingal are due to traffic and the proposal for a new WDR should be considered. A recommendation for inclusion of a new objective will be prepared as part of Section 12 Mitigation Measures.
Air Quality Monitoring Data	The EPA has only commenced air quality monitoring in Swords from the beginning of 2010. The SEA monitoring programme includes this data as a future indicator for ambient air quality.
Climate Change – Mitigation Measures and Adaptation	There is a requirement that new builds must show reduced energy consumption in their design and construction and where possible use alternate energy technologies. It is recommended that this be strengthened by implementing a minimum BER rating on new builds.
Energy Conservation	There are three objectives as part of LAP section 3.6 “Building Design, Energy Efficiency and Sustainability” for energy conservation in proposed development energy design
Water Conservation	A key Water Services objective has been included in the Plan for water conservation; <i>Ensure incorporation of water conservation measures into the design of proposed developments.</i>
County Waste Management Plan	There is no specific objective relating to how this LAP will interact with the County Waste Management Plan. A recommended objective will be prepared as part of Section 12 Mitigation Measures.

Issue	Comment
Recommendations of Shellfish Waters Pollution Reduction Programmes in the Louth-Fingal Region, (Skerries / Balbriggan and Malahide).	The LAP proposes the following objectives "Support the Water Framework Directive in implementing the Eastern River Basin District Management Plan and the program for measures for the Broadmeadow River", "Protect and manage existing watercourses within the plan lands and provide riparian corridors alongside these corridors"; and Riparian zones of 10 m (minimum) are required for streams on site maintaining the existing riparian vegetation'. These objectives ultimately relates to the protection of the Malahide Estuary as surface water quality from the site is assured.
FEM FRAMS Recommendations	The LAP development phasing is prepared with full regard to the FEMFRAMs recommendations.
Cumulative Effects / In-Combination Effects other ongoing Plans / Programmes	<p>The Oldtown-Mooretown LAP is derived from the Fingal County Development Plan 2005-2011 and the transport and community proposals making up the LAP were initiated in the County Plan. Since these objectives were derived from this plan, there should be no cumulative impacts.</p> <p>In addition, a masterplan for the lands will be prepared and be derived from the LAP, leading to no cumulative impacts.</p>
Eastern River Basin District River Basin Management Plan	<p>A key Water Services objective has been included in the Plan in assistance of the ERBD management plan;</p> <p><i>Support the Water Framework Directive in implementing the Eastern River Basin District Management Plan and the Program of Measures for the Broadmeadow River.</i></p>
Biodiversity – Broadmeadow River, Broadmeadow Estuary, ecological linkages such as hedgerow networks & trees (both individual / groups).	<p>The provision of the Broadmeadow Linear Park and proposed linkages of green spaces through Fingal will ensure ecological linkages. This LAP specifically proposes a key objective relating to green corridors using existing trees/ hedgerows.</p> <p><i>Protect and enhance the biodiversity of the plan lands through the incorporation of existing trees and hedgerows within green corridors and development of strategic planting</i></p> <p><i>Undertake a detailed tree/hedgerow survey and biodiversity study of part of the masterplan(s) for the LAP.</i></p>
Water Quality (WFD & EPA classifications)	Water quality (WFD and EPA classifications) are considered as part of the SEA baseline assessment and are highlighted as water quality SEA indicators.
Flood Risk Assessment	A Strategic Flood Risk Assessment is prepared and is Section 11 of this report.

Issue	Comment
Appropriate Assessment (Natura Impact Assessment)	<p>An assessment of this LAP is prepared and is contained in Appendix 2 of this report.</p> <p>The LAP does contain a recommendation to ensure compliance with the requirement of Article 6 of the Habitats Directive. A recommended objective will be prepared as part of Section 12 Mitigation Measures.</p>
Traffic Management	A traffic management plan "Swords Integrated Traffic Model" was prepared for the document document 'Your Swords, An Emerging City, Strategic Vision 2035'. The traffic management recommendations from this model are integrated into the LAP.
Groundwater Protection	A groundwater protection scheme is prepared for the lands and is referenced in the LAP. A recommended objective will be prepared as part of Section 12 Mitigation Measures.
Loss of Agricultural Land / Soil Loss	The development of the LAP lands will lead to the loss of pasture and agricultural lands. Water quality will be protected during development on these lands through the specific Oldtown-Mooretown SUDS design.
Infrastructure Requirements	A tiered and phased approach to infrastructural developments is being implemented in this LAP. The Plan requires that utilities precede development in a phased approach.
Waste water treatment Capacity	The Swords WWTP is being upgraded to 90,000 p.e. and the Plan requires that utilities precede development in a phased approach. There is no requirement for additional objectives.
<p>Appropriate Assessment (Natura Impact Assessment)</p> <p>A determination for the requirement for an Appropriate Assessment of all Land Use Plans and related variations/amendments should be made in consultation with the Department of Environment, Heritage and Local Government - National Parks and Wildlife Service, and this should be highlighted in the Plan.</p> <p>The Plan, should promote the setting up of procedures to ensure compliance with the requirement of Article 6 of the Habitats Directive.</p>	<p>An assessment was being prepared concurrently with the Plan. The AA was made in consultation with the DoEHLG NPWS section</p> <p>The LAP does contain a recommendation to ensure compliance with the requirement of Article 6 of the Habitats Directive. A recommended objective will be prepared as part of Section 12 Mitigation Measures.</p>

6.2 First Public Consultation on draft LAP

The draft Oldtown-Mooretown LAP was released for public consultation between the 01 April and 13 May 2010 in accordance with Section 20 (3) (b) (ii) of the Planning and Development Act 2000 (as amended). This period provided consultees and the general public to provide their comments on the draft LAP and equally on the assessments completed on the LAP, namely, the SEA, Natura Impact Assessment (known at this time as Appropriate Assessment) and the Strategic Flood Risk Assessment.

Twenty seven general submissions/observations were received during the consultation period. In addition, fourteen motions were made by the Councillors on the draft LAP.

A Managers report was prepared detailing where amendments were proposed to the draft LAP from the submissions received. The report also detailed responses to the submissions where amendments were not proposed.

6.3 Second Public Consultation on Material Amendments

The Material Alterations to the draft LAP were prepared based on the submissions received and displayed for for public consultation from the 27 July to the 24 August 2010. This constituted the second consultation period. Four submissions were received from the second consultation period (National Roads Authority, EPA, Department of Education and Skills and Department of Communications, Energy and Natural Resources. Only the EPA and Department of Education and Skills made comment on the amendments with no comment from the other two bodies.

7 BASELINE ENVIRONMENT OF OLDTOWN MOORETOWN

Schedule 2B of the SEA Regulations requires details on the current state of the environment. The regulations require an assessment of the evolution of the environment in the absence of the LAP and identification where data is not available.

The baseline assessment has been conducted in line with the SEA Directive and national legislation and focuses on biodiversity (flora and fauna), population and human health, geology and soils, water, air and climate, material assets, cultural heritage, landscape and interrelationships between topics.

7.1 Biodiversity

7.1.1 Designated Sites

There are a number of pieces of European and national legislation which make provision for the protection of important ecological habitats. These pieces of legislation categorise these habitats into European and nationally important sites;

- Special Areas of Conservation (SAC's);
- Special Protection Areas (SPA's) and;
- Natural Heritage Areas (NHA's).

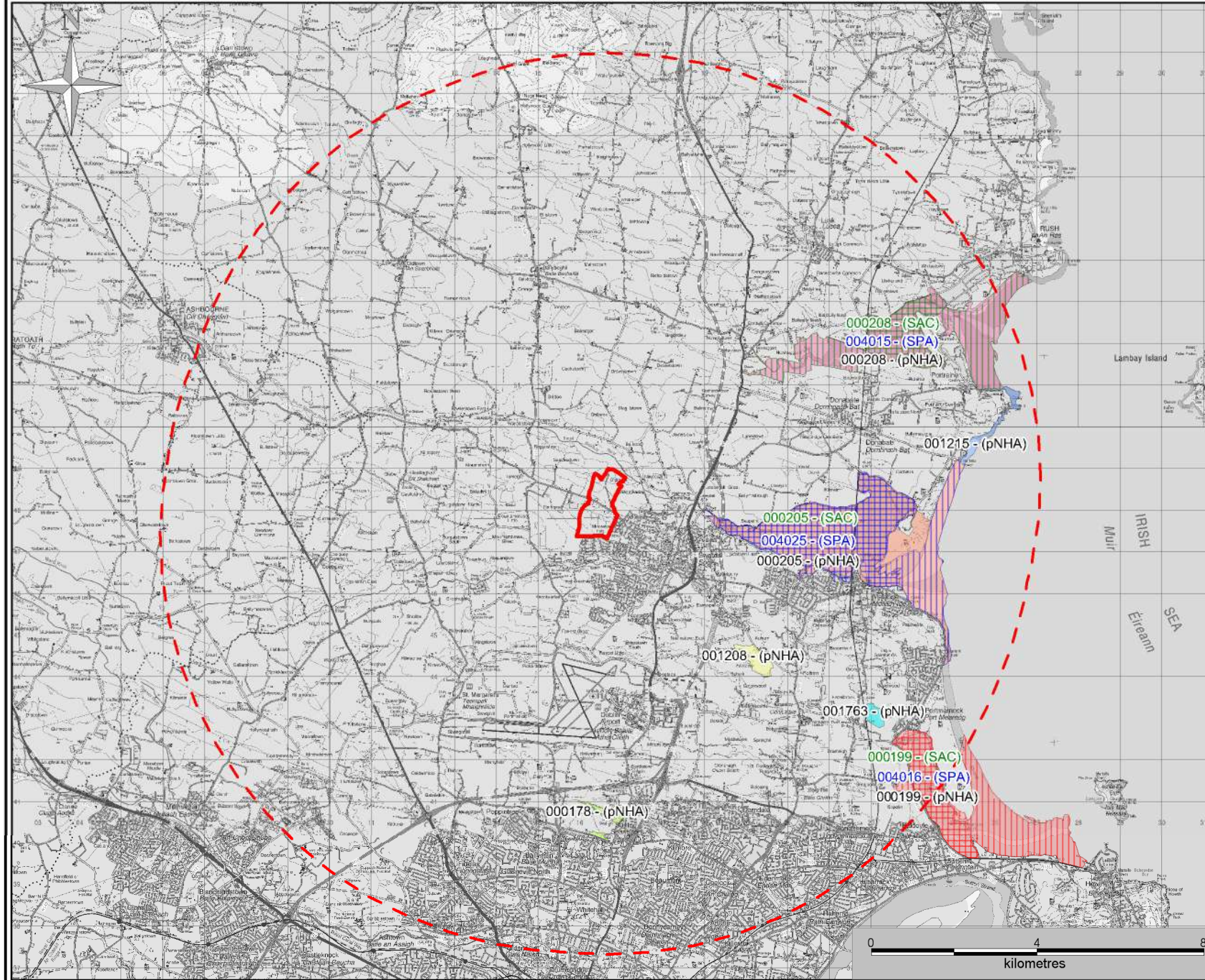
The LAP lands do not include any area that has been designated as a Natura 2000 (i.e. SAC or SPA). Neither does the LAP boundary lie adjacent to a Natura 2000 site. Figure 7.1 shows these sites in relation to the LAP lands boundary.

A total of three Natura 2000 sites lie within 10 km of the LAP boundary. These sites are both SACs and SPA's,


- Malahide Estuary (site code 000205)
- Rogerstown Estuary (000208)
- Baldoyle Bay (000199)

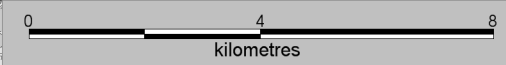
In addition, the lands do not include or lie adjacent to sites designated nationally as Natural Heritage Areas (NHAs). There are seven NHAs within 10 km of the lands, also shown in Figure 7.1.

- Baldoyle Bay (000199)
- Feltrim Hill (001208)
- Malahide Estuary (000205)
- Portraine Shore (001215)
- Rogerstown Estuary (000208)
- Santry Demense (000178) and
- Sluice River Marsh (001763).



- Legend**
- LAP boundary
- Special Protection Areas**
- Baldoye Bay - (004016)
 - Broadmeadows/swords Estuary - (004025)
 - Rogerstown - (004015)
- Special Aras of Conservation**
- Baldoye Bay - (000199)
 - Malahide Estuary - (000205)
 - Rogerstown Estuary - (000208)
- Proposed Natural Heritage Areas**
- Baldoye Bay - (000199)
 - Feltrim Hill - (001208)
 - Malahide Estuary - (000205)
 - Portraine Shore - (001215)
 - Rogerstown Estuary - (000208)
 - Santry Demesne - (000178)
 - Sluce River Marsh - (001763)

Date	10/03/2010	
Name of Client	Fingal County Council	
Name of Job	Strategic Environmental Assessment of the Oldtown Mooretown Local Area Plan	
Title of Figure	Ecological Designated Sites within 10 km of LAP Lands	
Scales Used	1 : 130,000 @ A4	
Figure No.	7.1	Rev A
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7.1.2 Non-Designated Sites

Broadmeadow River

The Broadmeadow River lies to the north of the LAP lands and flows into the Broadmeadow (Malahide) estuary, which is a designated SPA, SAC, NHA and Ramsar site. The estuary is approximately 2 km to the east of the LAP lands. Although the Broadmeadow River is not a designated site, it does have the potential to impact on the designated site downstream of the development lands.



Plate 7.1: Broadmeadow River downstream of Oldtown Lands

Mooretown Lands

The lands are currently agricultural. In a landscape characterisation assessment completed by Mitchell and Associates in 2006, the vegetation on site was mapped. The lands character is not expected to have significantly changed since 2006 as the land use has remained agricultural.

Figure 7.2 is the existing vegetation map created for the assessment. The assessment highlights that the ground cover is rough meadow grasses as pastureland. The lands are segregated into smaller sections by small hedgerows. The hedgerows were considered to be poorly developed at this time, containing a relatively small number of mature trees.

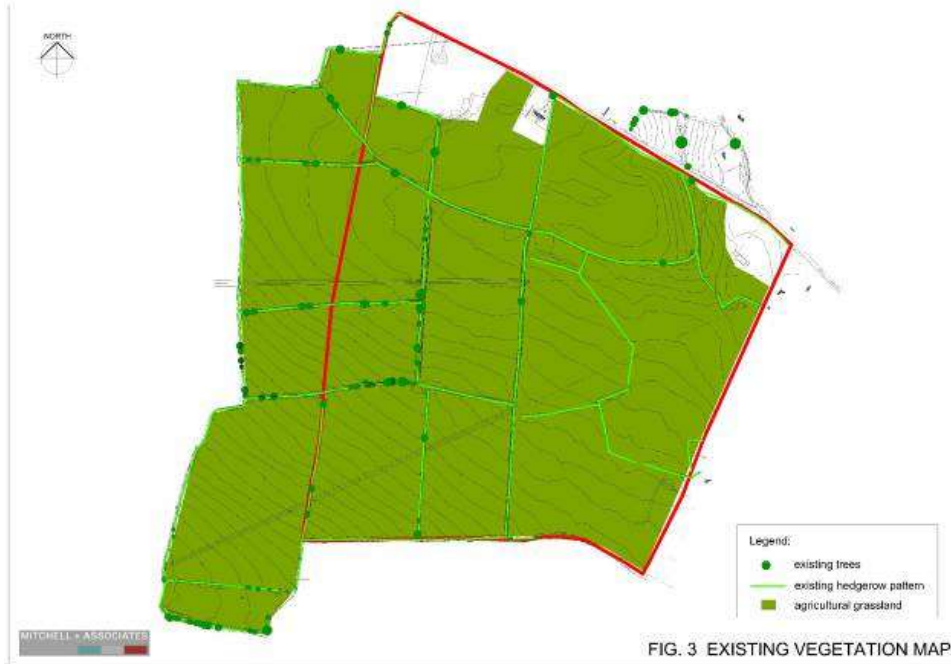


Figure 7.2: Mooretown Vegetation Map

Source: Landscape characterisation assessment completed by Mitchell and Associates, 2006

Oldtown Lands

In a similar assessment completed for the Oldtown lands, the ground cover was deemed to be rough grassland with an area of disturbed grassland by the Rathbeale Road, Figure 7.3 overleaf. Unlike the Mooretown lands, there are no significant hedgerows with a minor hedgerow crossing the south-western corner of the lands. Similarly to Mooretown, there are no mature trees and the hedgerows are poorly developed.

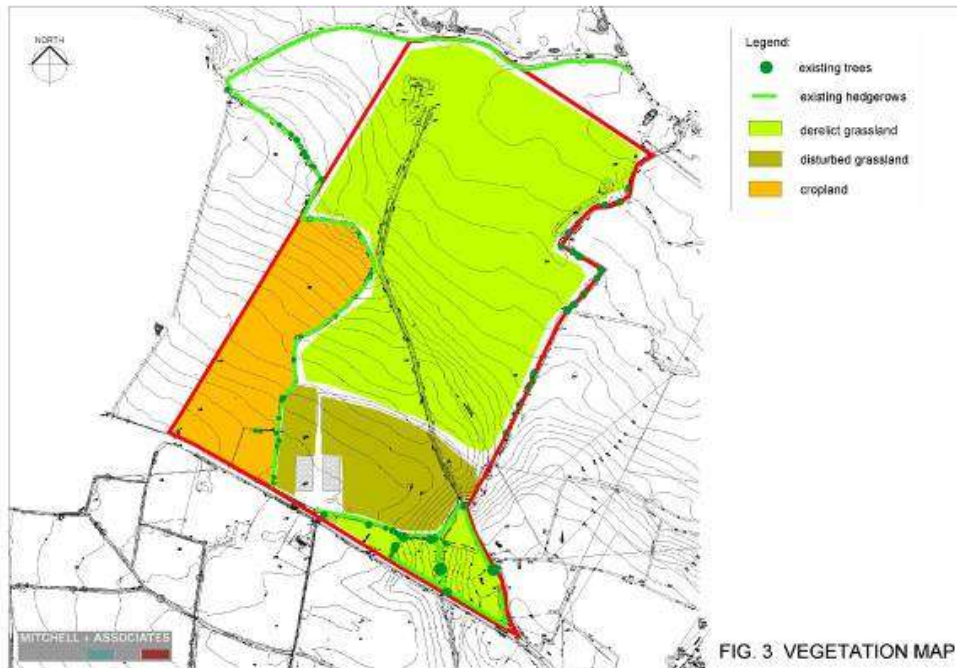


Figure 7.3: Oldtown Vegetation Map

Source: Landscape characterisation assessment completed by Mitchell and Associates, 2006

The lands were considered to be not significant in terms of ecological amenity and were deemed to constitute a poor habitat for wildlife.

An assessment was completed for the LAP in accordance with Article 6 of the Habitats Directive to assess for potential impact of the LAP on the designated Malahide Estuary. This assessment is provided in Appendix 2 of this report.

7.1.3 Primary environmental issues of relevance to the LAP

Impacts on Irish biodiversity in recent years have occurred primarily as a result of habitat degradation or destruction due to anthropogenic effects including agriculture, forestry, land reclamation, urban sprawl, road construction, water pollution and climate change.

The primary issue of relevance to the Oldtown-Mooretown lands is the protection of the Broadmeadow River for the protection of the designated estuary downstream. The lands themselves would not be considered a locally important ecological amenity. However, the presence of hedgerows and the greenfield nature of the lands would not exclude them from ecological habitation and therefore conversion of the lands from greenfield to residential and supporting amenities would require a sympathetic design to prevent loss of the existing, limited ecology.

7.1.4 Evolution in the absence of a LAP

In the absence of a LAP for the lands, development in Oldtown-Mooretown would have no long-term guidance and each planning application would be treated individually. Consequently, no long term, cumulative, causal or holistic impacts on the Broadmeadow River and consequently the designated estuary would be assessed and, through time, negative cumulative impact could occur on the river and estuary. Pollution of various water bodies may occur from developments along the edges of water bodies or where single dwelling units discharge to groundwater.

Developments along the riverbank would also result in a reduction in ecological connectivity within and between these and other habitats.

7.1.5 Identified significant gaps in baseline information and identified alternate data sources

Habitat surveys have not been completed for the Oldtown-Mooretown lands and the assessment of poor ecological habitat is based on the 2006 landscape surveys. However, this information gap is to be addressed by a requirement for 'a detailed tree/hedgerow survey and biodiversity study as part of the Masterplan(s)' be undertaken.

7.2 Water Quality

This section assesses the baseline water quality in the LAP lands for ecological and human health requirements. For the purposes of this section, water in the study area is categorised as surface water and groundwater. The surface water features in the LAP lands are shown in Figure 7.4. Groundwater and surface water quality are critical for the protection of designated and important ecological areas. River water quality and groundwater quality are critical for potable water supply. These waterbodies are discussed in the following sections. Flooding is considered in Section 11 of this report as a Strategic Flood Risk Assessment (SFRA) in accordance with the DoEHLG guidance 'The Planning System and Flood Risk Management Guidelines for Planning Authorities'.

Legislative Context

The European Communities (Water Policy) Regulations, 2003 (SI No. 722 of 2003) transposed the Water Framework Directive (2000/60/EC) into Irish Law. The Water Framework Directive (WFD) sets an objective of achieving at least good status for all water bodies and aims to ensure that no further deterioration in status of any waters will occur by 2015. Good status for surface water is a combination of the chemical quality, biological quality and microbiological quality that must be achieved. For groundwater, good status refers to chemical water quality and quantity.

The governance of water in Ireland is directed through 8 River Basin Districts (RBDs). The LAP lands are covered by the Eastern River Basin District.

The WFD Article 5 Characterisation Report submitted to the EU in March 2005 summarises the impacts of human activity on water bodies. The pressures on the water bodies are grouped into:

- Point source pressure: discharge from a single source such as a wastewater treatment plant or an industry
- Diffuse source pressures: pressures from agriculture, forestry or septic tanks
- Hydrological pressures: abstractions for industry, or drinking water supplies
- Physical alterations: dredging and river straightening for navigational purposes

The Characterisation and Analysis Summary Report completed for the National Article 5 Characterisation Report concludes that 5% of groundwater bodies, 45% of river water bodies, 25% of lake water bodies, 48% of transitional water bodies and 11% of coastal water bodies within the SERBD are identified as being at risk or significantly at risk of not meeting good status by 2015. (Source: SERBD Article 5 Characterisation Summary Report, SERBD November, 2005.)

Biological water quality is also measured for the EPA at recorded sampling locations throughout the county. Biological indicators are probably the best indicators in a water body as they represent long-term water quality. The data gathered for the biological sampling (kick sampling) is used to determine the EPA biotic index for the water body. The corresponding biotic index is used to describe the water quality as is shown in Table 7.1.

Table 7.1: EPA Water Quality and Biotic Indices

Water Quality	EPA Biotic Index
Unpolluted	4-5 or 5
Slightly polluted	3-4 or 4
Moderately polluted	2-3 or 3
Seriously polluted	1, 1-2 or 2

Surface Water

There are two water bodies flowing through the LAP lands, both tributaries of the Broadmeadow;

- Broadmeadow tributary- Mooretown
- Broadmeadow tributary- Saucerstown.

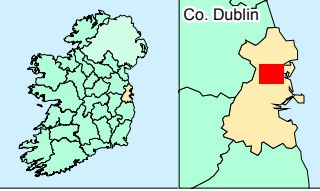
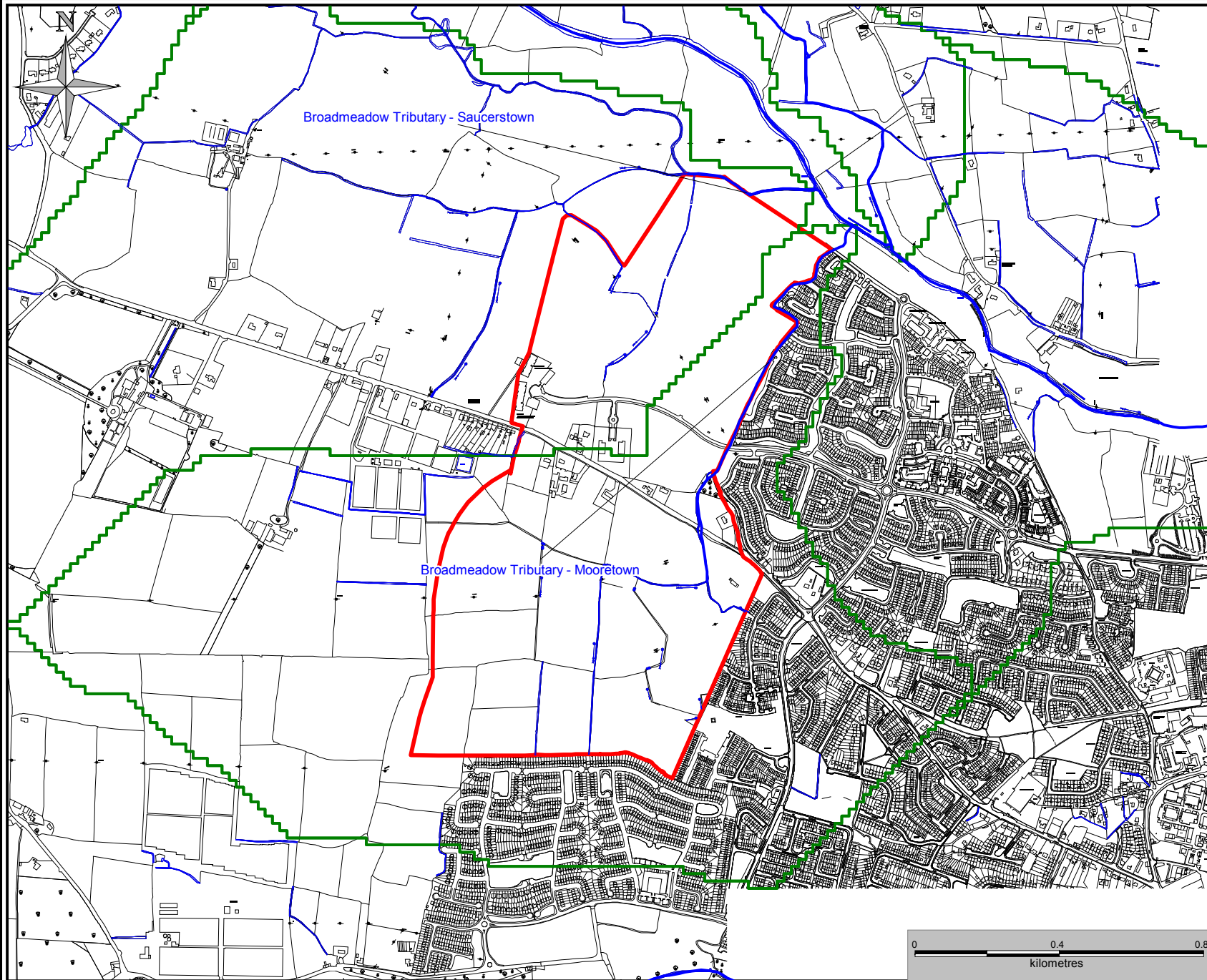
Baseline Assessment – Water Framework Directive

Surface water assessments completed for the WFD are used to allocate risk status for surface water bodies on their ability to achieve “good” status by 2015. The WFD data is available through a centralised water mapping site (www.wfdireland.ie).

The risk ratings are based on the risk of the water body not achieving “good status” by 2015. The Broadmeadow River is at risk class 1a, i.e. at risk of not achieving good status. In addition, both tributaries flowing through the LAP lands are also classified as 1a. These classifications are presented in Figure 7.5.

Baseline Assessment – Biotic Index

In the EPA’s River Quality Report 2005, the Broadmeadow River is described as indicating significant water quality degradation over its course. There were no sensitive species at any of the Broadmeadow locations observed with the Lispopple bridge location showing heavy siltation in 2005.



Legend

- LAP boundary
- river waterbody
- river waterbody catchment boundary
- surface water feature

data source - Environmental Protection Agency

Date	15/03/2010
Name of Client	Fingal County Council
Name of Job	Strategic Environmental Assessment of the Oldtown Mooretown Local Area Plan
Title of Figure	Surface Water Features in LAP Development Lands
Scales Used	1 : 15,000 @ A4
Figure No.	7.4
Rev	B

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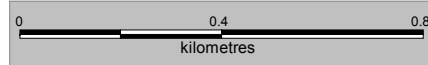


Table 7.2: Historical Q Ratings

Monitoring Station	Location	Distance to LAP Lands	1988	1991	1996	1998	2001	2005	2008
08B020700	Lispopple Br	Upstream	3-4	3	3-4	3-4	3	3 ¹	
08B020800	Br near waterworks	Downstream	3	3	3	2-3	3	2-3	3 ²

¹ Heavy siltation noted in 2005

² Significant water quality degradation over the course of the river from Station 0400 0.5 km upstream of Ashbourne Bridge.

Overall, the WFD and biotic classifications show that the surface water quality of the Broadmeadow and its tributaries are polluted and remain at ongoing risk of pollution.

Groundwater

Groundwater Vulnerability and Protection

Groundwater vulnerability indicates how vulnerable the aquifers are to contamination through assessment of the subsoil thickness and the aquifer classification. Groundwater vulnerability is divided into four vulnerability categories, extreme (E), high (H), moderate (M) and low (L), based on geological and hydrogeological factors. However a significant amount of the current mapping is at an interim stage.

The data indicates that the area is at an interim mapping stage and is considered to be anywhere from high to low vulnerability.

Baseline Assessment – Water Framework Directive

The WFD risk assessments applied to surface water are also applied to groundwaters. These classifications are presented in Figure 7.6. There are groundwater catchments under the LAP lands with the division occurring on a south-west to north-east split through the LAP lands. The groundwater under Mooretown and Swords has been classified as 1b, probably at risk of not achieving good status.

The groundwater under Oldtown and the rural area is significantly different in that it is expected to achieve good status. This difference is largely due to the differences between the urban and rural pressures on groundwater.

Potable Water

On January 24th 2008 the EPA released their report 'Provision and Quality of Drinking Water in Ireland: A Report for the Years 2006 – 2007'.

One finding in the report was that 339 no. public water supplies required examination from source to consumer to determine whether replacements or upgrades were needed, or whether operational practices should be improved. These water supplies are currently being placed on a Remedial Action List.

Non-compliances at the plant were recorded from an EPA audit for "Treatment and Management Issues". The plant has been added to the EPA's Remedial Action List.

7.2.1 Primary environmental issues of relevance to the LAP

In urban areas, point sources such as a wastewater treatment plant and diffuse sources from surface water runoff are the main sources of impact on water bodies. The lands are also at the urban-rural boundary and water bodies will also remain vulnerable to agricultural pollution. This LAP will not likely be in a position to prevent such pollution with the more strategic County Development Plan in a better position to enforce water body protection from agricultural sources.

The LAP will need to ensure that adequate wastewater treatment is available for the proposed increase to population resulting from the development of the LAP lands. The SUDS design proposed with the LAP will also be implemented to reduce the increase in surface water run-off from the developed lands and ensure that the run-off from the SUDS mitigation measures is unpolluted and fit to enter the Broadmeadow River.

7.2.2 Evolution in the absence of a LAP

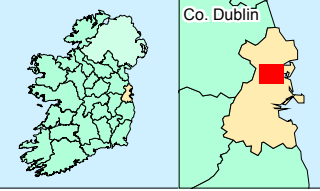
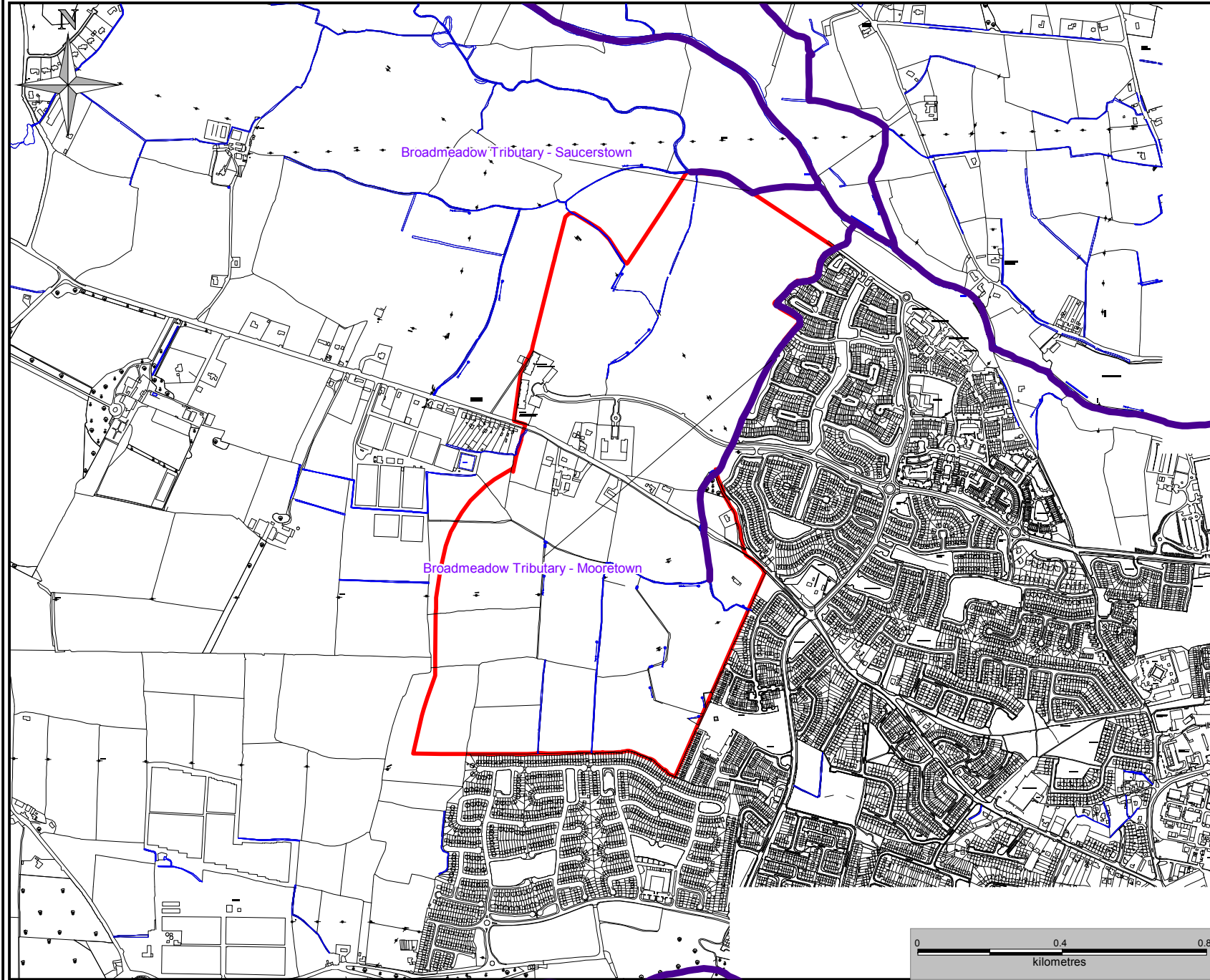
This baseline assessment has shown that the Broadmeadow River has been significantly degraded by various sources of pollution. In the absence of this LAP, the quality of the river would continue to deteriorate as the impacts of isolated developments in the lands would not be considered cumulatively.

Groundwater, a source of drinking water and an integral part of unique habitats in the county, would suffer a similar fate. In the absence of proper planning controls, diffuse sources of pollution from single dwellings and agriculture would pollute groundwater.

In the absence of a LAP, developments could be granted planning permission without providing a hydrological assessment, determining the development's impact on surface water generation, drainage provisions and altering surface water morphology. Alteration of surface water flows and surface water morphology could negatively impact on aquatic environments.

7.2.3 Identified significant gaps in baseline information and identified alternate data sources

The WFD supporting data from the Eastern River Basin District was not available in the course of preparing this section.



Legend

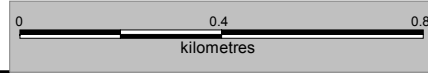
- LAP boundary
- surface water feature

EPA Risk Assessment of achieving good status by 2015

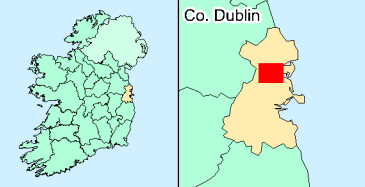
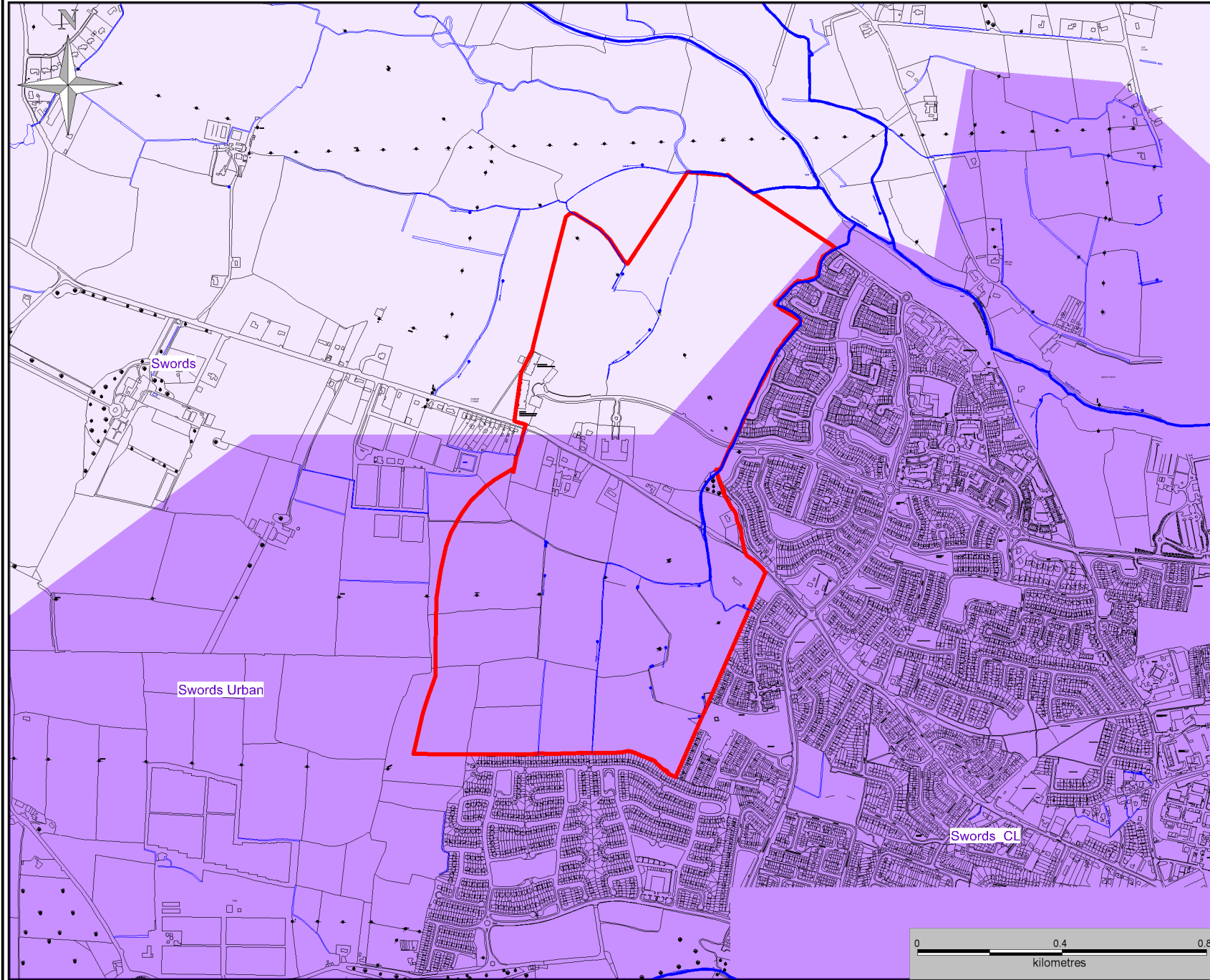
- 1a - at risk of not
- 1b - probably at risk of not
- 2a - expected to
- 2b - strongly expected to

data source - Environmental Protection Agency

Date	15/03/2010
Name of Client	Fingal County Council
Name of Job	Strategic Environmental Assessment of the Oldtown Mooretown Local Area Plan
Title of Figure	Water Framework Directive Surface Water Risk Assessment Ratings
Scales Used	1 : 15,000 @ A4
Figure No.	7.5
Rev	B



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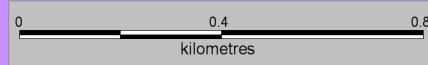
- LAP boundary
- river waterbody
- surface water feature

EPA Risk Assessment of achieving good status by 2015

- 1a - at risk of not
- 1b - probably at of not
- 2a - expected to
- 2b - strongly expected to

data source - Environmental Protection Agency

Date	15/03/2010	
Name of Client	Fingal County Council	
Name of Job	Strategic Environmental Assessment of the Oldtown Mooretown Local Area Plan	
Title of Figure	Water Framework Directive Groundwater Risk Assessment Ratings	
Scales Used	1 : 15,000 @ A4	
Figure No.	7.6	Rev B



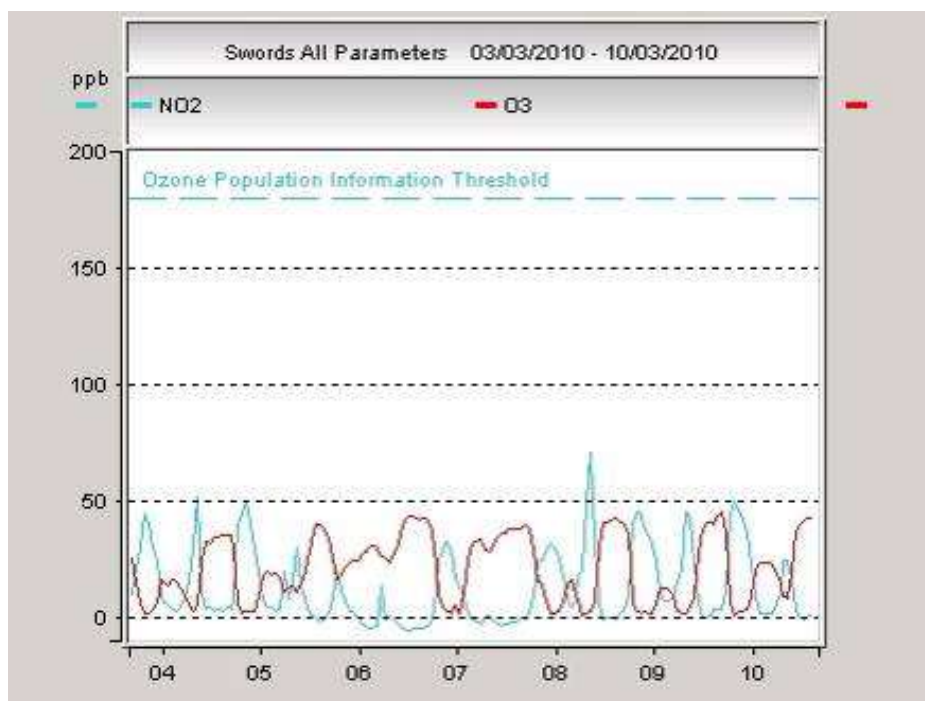
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7.3 Air Quality and Climate

The EPA 2004 report on Air Quality in Ireland found that greenhouse gas emission levels nationally were 23% above the 1990 levels. The principal contributing economic sectors of greenhouse gas emissions are the energy, transport and agricultural sectors. Greenhouse gases and their associated impact on climate change are recognised as a major environmental threat both globally and nationally.

Fingal County Council does not conduct any ambient air quality monitoring in the county. However, ambient air quality monitoring is undertaken by the EPA at the Fingal County Council depot, Watery Lane, Swords. Continuous monitoring is completed for ozone and nitrogen oxides. Swords is in Zone A (Dublin Conurbation). This monitoring commenced at the beginning of 2010 and data collected has not been validated. A snapshot of the period from 03 March to the 10 March 2010 was available on the EPA website and is shown as Figure 7.7. This data shows that both ozone and nitrogen oxide levels are well within the limits of 180 µg/ m³ and 200 µg/ m³ respectively and considered good levels by the EPA.

Figure 7.7: Air Quality Monitoring Results for Swords – 03 to 10 March 2010



Source: Environmental Protection Agency Environmental Monitoring Air Quality data www.epa.ie

IPPC Licensed Facilities

There are no facilities licensed for waste of IPPC activities by the EPA in or adjacent to the LAP lands. The closest facilities are located in Swords namely;

- Arch Chemicals (Licence reference P0060-01)
- Swords Laboratories (Licence reference P0014-04)

Waste Licensed Facilities

There are no EPA waste licensed facilities within the study area. There are no quarries operating within the LAP area.

7.3.1 Primary environmental issues of relevant to the LAP

There is limited air quality data available from the EPA for closest monitoring location in Swords. The only available data presents the previous seven days logged data for nitrogen oxides and ozone. The typical air quality rating is good.

7.3.2 Evolution in the absence of a LAP

In the absence of a LAP, there would be no framework for the location of new development and as a consequence uncontrolled dispersed development would be likely to occur. Such development would be driven by economic reasons and not by a requirement to improve air quality such as reducing the dependency of private car ownership.

The LAP requires that new housing and building developments comply with the energy regulations. Compliance with these regulations will minimise energy use and the subsequent production of greenhouse gases.

In the absence of proper planning and development, building construction materials may not comply with the energy regulations requirements. Greenhouse gas emissions would increase which would be contrary to the policies of the National Climate Change Strategy (2007).

7.3.3 Identified significant gaps in baseline information and identified alternate data sources

As discussed previously, there is no historical air quality data. The assessment is based on the available air quality data which only allows viewing of the previous seven days data.

7.4 Noise

EU Directive 2002/49/EC 'The Assessment and Management of Environmental Noise' was transposed into Irish law as SI 140 of 2006 'Environmental Noise Regulations'. The Regulations require local authorities to prepare action plans on environmental noise. An initial aspect of the noise action plans is prediction mapping of the following sources;

- All Roads and Major Roads,
- All Rail and Major Rail,
- Major Industrial Processes,
- All Airports and Major Airport.

Noise mapping of Fingal was conducted for the Dublin agglomeration and presented in the report "Dublin Agglomeration Action Plan relating to the Assessment and Management of Environmental Noise" for the period July 2008 to November 2013. The purpose of noise mapping is

- To comply with the requirements of EU Directive 2002/49/EC and S.I. No. 140 of 2006
- To identify and quantify the scale of the noise problem in the Dublin Agglomeration by providing information on noise levels.
- To provide information to the public on the level of noise throughout the Agglomeration and the location of 'hot spots'.
- To assist the four local authorities in the Dublin Agglomeration in the process of setting realistic targets for noise reduction if required.
- To provide a tool, permitting the more effective use of planning controls to reduce noise from new noise sources and to identify and protect and create areas of low sound levels.
- To be a tool, whereby action plans to reduce noise from existing sources can be developed, analysed and costed.
- To be a means of monitoring the effectiveness of planning controls and action plans for reducing noise.
- To be capable of monitoring trends in environmental noise.
- To provide a platform for further research into the effects of environmental noise in the Dublin Agglomeration.

This report proposes 'undesirable' noise levels of 55 decibels (dB) for night-time and 70 dB for daytime. Noise mapping results for Central Fingal show the daytime and night-time levels for Mooretown in its entirety and the southern section of Oldtown.

From Figures 7.8 and 7.9, it is evident that the undesirable noise levels in the LAP lands are focused around the Rathbeale Road where daytime levels of 70 dB are approached with night-time levels of 60 dB. These levels decrease to 55-60 dB during daytime hours and 45-50 dB during night-time hours when moving away from the road.

This would confirm the main findings from the Fingal noise mapping where traffic noise is considered the dominant source in Fingal.

Figure 7.8: Central Fingal DayTime Noise (L_{Day})



Source: Dublin Agglomeration Action Plan relating to the Assessment and Management of Environmental Noise, July 2008

Noise mapping was also undertaken for Dublin Airport as part of the Dublin Agglomeration Noise Action Plan. The noise mapping produced for night-time average aircraft noise and 24 hour average noise both show no contributing noise over the Oldtown - Mooretown lands therefore there is no current noise impact from the airport on these areas.

7.4.1 Primary environmental issues of relevance to the LAP

From the other residential estates in the immediate area, the contributing noise levels from residential roads are not significant. The proposed Western Distributor road proposed in the LAP should be considered for contributory noise impact in the LAP lands.

7.4.2 Evolution in the absence of a LAP

The Western Distributor Road is proposed as part of the LAP, however if the lands were not developed, there would still be a requirement for a road of this type to facilitate north-south connectivity to the west of Swords.

Figure 7.9: Central Fingal Night-Time Noise (L_{Night})

Source: Dublin Agglomeration Action Plan relating to the Assessment and Management of Environmental Noise, July 2008

7.4.3 Identified significant gaps in baseline information and identified alternate data sources

There is sufficient baseline information from the available noise mapping to ascertain the levels from which Fingal County Council will be focusing their Noise Action Plans. It is evident from the available data that the Oldtown-Mooretown lands will not require noise action plans with current predicted levels.

7.5 Soils and Geology

Oldtown-Mooretown lands are underlain by the Malahide formation- limestone/ shale and the Tober Colleen formation – limestone/ shale. These are illustrated in Figure 7.10.

The Teagasc sub-soils dataset identifies the dominant sub-soil underlying the LAP lands as carboniferous limestone till. There are glaciofluvial sands and gravels identified along the Broadmeadow River.

There are no current or historical extractive industries in the area related to the LAP lands. There are no sites of geological interest in the LAP lands.

7.5.1 Primary environmental issues of relevance to the LAP

The LAP lands are greenfield, agricultural lands which will be sealed to further agricultural use by the residential development. In addition, construction on greenfield sites can lead to soil erosion which can impact on surface water quality which is already considered poor.

Under the Environmental Liabilities Directive, the EPA is the competent authority on all aspects of the Directive. Their role is to assess the likelihood of environmental damage occurring on waste licensed or IPPC licensed sites, issue directions to the operator to eliminate the threat of environmental damage, determine and direct remedial measures and recover all costs associated with the damage or threat of damage.

The role of local authorities such as Fingal County Council is the control of smaller sites outside EPA licensing remit, smaller contaminated land projects and historic landfill sites.

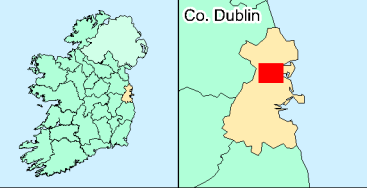
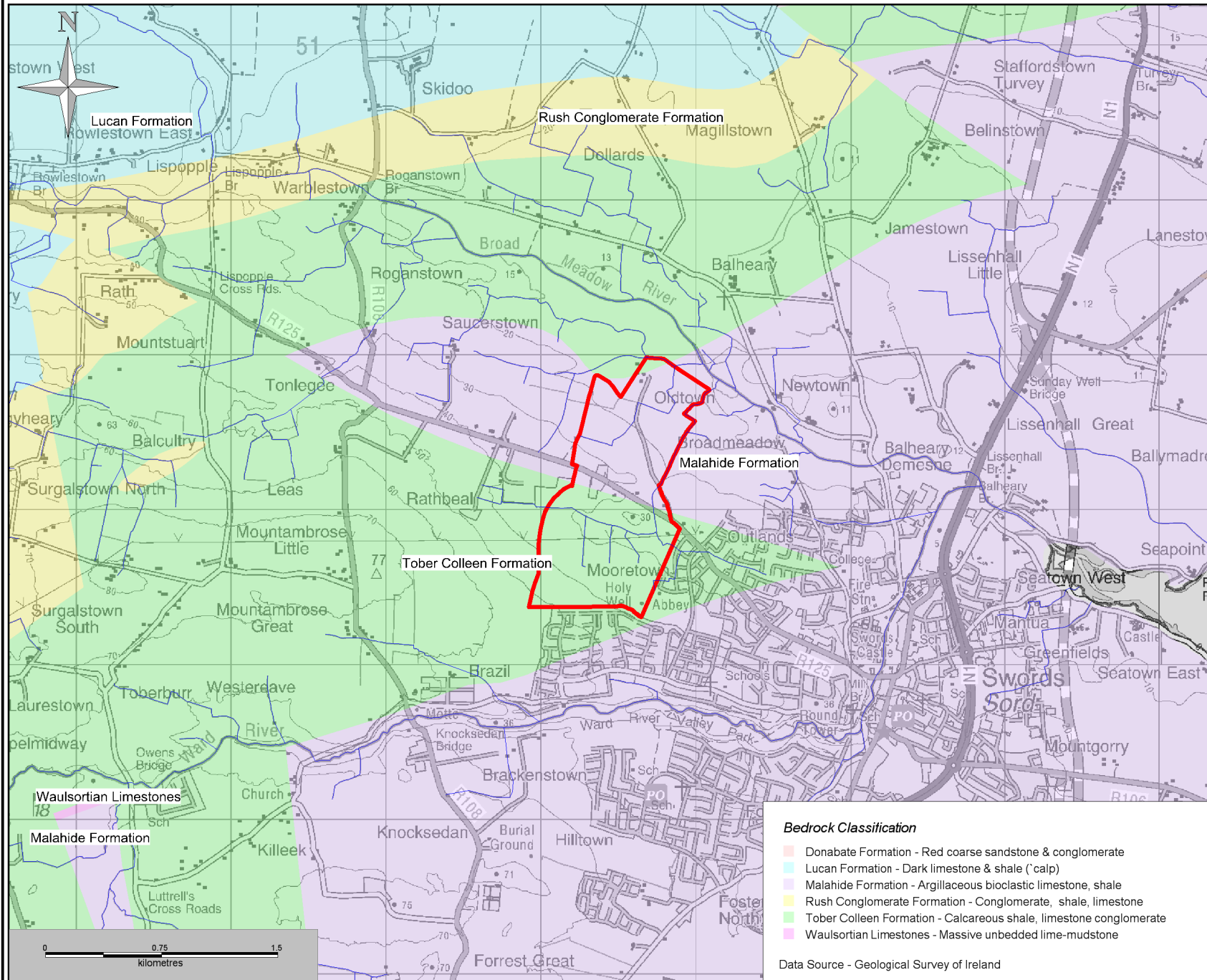
7.5.2 Evolution in the absence of a LAP

In the absence of a LAP, soils have the potential to be contaminated by development which is not controlled in construction stages to mitigate run-off or spillage. There is also potential for contamination by inappropriate wastewater and surface water management.

The absence of a LAP would also lead to less cohesive residential and community planning. Although greenfield sites are being lost to the residential areas, there is a impetus to maintain open space lands and green areas for amenity purposes.

7.5.3 Identified significant gaps in baseline information and identified alternate data sources

There are no identified gaps in assessment of the impact of the plan on soils and geology.



Legend
 LAP boundary

Date	10/03/2010
Name of Client	Fingal County Council
Name of Job	Strategic Environmental Assessment of the Oldtown Mooretown Local Area Plan
Title of Figure	Geology of LAP Development Lands
Scales Used	1 : 20,000 @ A4
Figure No.	7.10
Rev	A

- Bedrock Classification**
- Donabate Formation - Red coarse sandstone & conglomerate
 - Lucan Formation - Dark limestone & shale ('calp')
 - Malahide Formation - Argillaceous bioclastic limestone, shale
 - Rush Conglomerate Formation - Conglomerate, shale, limestone
 - Tober Colleen Formation - Calcareous shale, limestone conglomerate
 - Waulsortian Limestones - Massive unbedded lime-mudstone

Data Source - Geological Survey of Ireland

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7.6 Population and Human Health

Population

The LAP lands fall into two Electoral Divisions (EDs). Oldtown, that part of the LAP lands north of Rathbeale Road, is in the Swords-Lissenhall ED, and Mooretown, south of Rathbeale Road, is in the Swords-Glasmore ED.

The Central Statistics Office (CSO) census results for 2006 showed that the population of the Swords-Lissenhall ED was 9072, an increase of 49% since 2002. The population of the Swords-Glasmore ED was 7799 in 2006, an increase of 2% since 2002. The two EDs combined increased in population by 23%, which is roughly equal to the growth of Swords and County Fingal and substantially higher than the national increase of just over 8%.

Table 7.3: Census Population Data

Electoral Division	2002 Persons	2006			2002-2006 Change	Populations targets from the Greater Dublin Area Regional Planning Guidelines 2010-2022 (Table 5)	
						2016	2022
Swords-Lissenhall	6,081	9,072	4,509	4,563	49%		
Swords-Glasmore	7,679	7,799	3,970	3,829	2%		
Combined	13,760	16,871	8479	8,392	23%		
Swords Town	27,175	33,998	16,950	17,048	25%		
County Fingal	196,413	239,992	119,200	120,792	22%	287,547	309,285
GDA Region *	1.405 M	1.662 M	-	-	18%	1.956 M	2.104 M
Ireland	3.917 M	4.239 M	2.121 M	2.118 M	8%		

* GDA Region includes the local authority areas of Dublin City, Dun Laoghaire Rathdown, Fingal and South Dublin as well as Counties Kildare, Meath and Wicklow.

Housing Type

In 2006 the proportions of houses and apartments among all accommodation types in the Swords-Lissenhall ED were 77% and 18% respectively, and in Swords-Glasmore 95% and 1.8% respectively. The combined figures for the Lissenhall and Glasmore EDs (the subject area) of 85% houses and 11% apartments were comparable with the figures for Swords and County Fingal (Table 7.4).

The proportion of houses relative to apartments in the subject area (and in Swords and Fingal) was substantially higher than in Dublin City and Suburbs. This suggests that there is some potential/requirement to increase the mix of accommodation types (specifically apartments relative to houses) and thereby the residential density, to bring the subject area and Swords closer to that of the regional norm (Dublin City and Suburbs) and towards the 'thriving vibrant consolidated major town – an emerging city' envisaged in the Strategic Vision for Swords 2035. This would require the parallel development of services, facilities and amenities.

Table 7.4: Census Accommodation Data

Accommodation Type	House	Apartment	Other	Total
Swords-Lissenhall	2,504 (77%)	592 (18%)	135	3,231
Swords-Glasmore	2,282 (95%)	44 (1.8%)	76	2,402
Combined	4,786 (85%)	636 (11%)	211	5,633
Swords	9,687 (83%)	1,541 (13%)	335	11,563
GDA Suburbs - Fingal	31,397 (82%)	5,667 (15%)	1,171	38,235
Dublin City & Suburbs	281,337 (75%)	75,801 (20%)	15,985	373,123

Age Profile and Family Structure

In 2006 the percentage of the total population in the 0-4 year age cohort was approximately 10.3% in the Swords-Lissenhall ED and 7.9% in the Swords-Glasmore ED. The percentage of 0-4 year olds was 8.4% in Swords and 8.8% in County Fingal. This indicates that there is a higher proportion of families with young children in the relatively new, relatively mixed neighbourhoods (in terms of accommodation type) in the Swords-Lissenhall ED.

Table 7.5: ED Age 0-4 Year Profile

Electoral Division	2006 Persons aged 0-4 yrs	2006 Persons all ages	Percentage Persons aged 0-4 yrs
Swords-Lissenhall	935	9,072	10.3%
Swords-Glasmore	619	7,799	7.9%
Swords Town	2,869	33,998	8.4%
County Fingal	21,273	23,9992	8.8%

It can be expected that the form of development to take place in the LAP lands will be closer in nature (in terms density, accommodation type, etc.) to that in the Swords-Lissenhall ED than the Swords-Glasmore ED or Swords overall. This has implications for the range of social services, facilities and amenities required to serve the population.

Table 7.6: ED Age 0-15 Year Profile

Electoral Division	2006 Persons aged 0-15 yrs	2006 Persons all ages	Percentage Persons aged 0-15 yrs
Swords-Lissenhall	2,106	9,072	23.2%
Swords-Glasmore	2,054	7,799	26.3%
Swords Town	7,902	33,998	23.3%
County Fingal	56,110	239,992	23.4%

In 2006 the percentage of the total population in the 0-15 year age cohort was 23.5% in the Swords-Lissenhall ED, roughly equal to the percentage in Swords town overall and in County Fingal. The percentage of 0-15 year olds was 26.3% in Swords Glasmore. This indicates that there is a higher proportion of maturing families (with teenagers) in the more established lower density neighbourhoods to the south and east of Mooretown. These neighbourhoods could in time benefit from easy access through the subject lands to the university and sports facilities sites identified in the Lissenhall Development Area (proposed in the Strategic Vision for Swords 2035).

Education

In the course of preparing the LAP, Fingal County Council consulted with the Department of Education and Science to identify school needs for the existing and projected population of Oldtown-Mooretown and environs. It was determined that the following facilities would be required:

- a) Two permanent 16-class primary schools and a school/community hall to replace the existing temporary facilities at Oldtown. These schools have been granted planning permission and will comprise an Educate Together School and a Gael Scoil. The community hall and sports facilities will be available for use by both the school and the public.
- b) A 24 classroom school on the reserved primary school site at Applewood Village. To date an 8 classroom primary school has been permitted.
- c) A site with a minimum size of 5.7 hectares for a school campus south of the Rathbeale Road to accommodate both primary and secondary education facilities. The community hall and sports facilities associated with the school campus should be available for use by both the school and the public.

Health Care

The nearest health care facility to the subject lands is the Swords Medical and Dental Centre located in the Applewood Village local centre to the east of Oldtown. Along with the Health Centre on Bridge Street, and additional facilities in Swords, the existing population is well served by Primary Care services. Swords also benefits from its proximity to the various public and private hospitals in Dublin.

In preparation for the LAP Fingal County Council consulted with the HSE to identify health care needs for the existing and projected population of Oldtown-Mooretown and environs. The HSE require one 'Two Primary Care Team' (2PCT) Centre in the region of 20,000 sq ft to serve the future population of Oldtown-Mooretown. The HSE includes the following services within such a Primary Care Centre:

- Public Health Nursing,
- Physiotherapy,
- Occupational Therapy,
- Speech and Language Therapy,
- Social Work Services, Home Help Services, and
- Mental Health Services.

As the involvement of one or more General Practitioners practices within the building is central to the development of any new Primary Care Centre, General Practitioners' Services are also be included within such a Primary Care Centre.

It is an objective of this LAP to facilitate this centre within the Mooretown Local Centre.

Employment

The 2006 census results showed that a higher than average proportion of the workforce of the combined Swords-Lissenhall and Swords-Glasmore EDs (1.33%) is employed in the agriculture, forestry and fisheries industry¹, when compared with Swords (0.66%), County Fingal (0.76%), and the combined Dublin local authorities (0.33%). This reflects the strength of the agricultural and horticultural industry in north County Dublin, particularly north and west of Swords.

¹ Eight main industries are defined in the census results, as follows:

- Agriculture, forestry and fisheries
- Building and construction
- Manufacturing industries
- Commerce and trade
- Transport and communications
- Public administration
- Professional services
- Other

There is also a substantially higher proportion of the workforce in the transport and communications industry in the combined Swords-Lissenhall and Swords-Glasmore EDs (11.82%), and in Swords (12.88), when compared with County Fingal (8.97%) and the combined Dublin local authorities (6.72%). This can be attributed to the proximity of Swords to Dublin Airport.

There is a substantially lower proportion of the workforce of the combined Swords-Lissenhall and Swords-Glasmore EDs (11.76%) employed in the professional services industry when compared with Swords (12.28%), County Fingal (15.95%) and the combined Dublin local authorities (17.17%).

Commuting

The 2006 census results showed that a slightly smaller proportion of the populations of the combined Swords-Lissenhall and Swords-Glasmore EDs (28%), Swords (29.56%) and County Fingal (25.09%) travel less than 5km to work, school or college, compared to the combined Dublin local authorities (32.16%) and Ireland (31.22%). This indicates that there is a relative lack of employment and education opportunities within walking distance of homes in the Oldtown-Mooretown area.

A substantially higher proportion of the populations of the combined Swords-Lissenhall and Swords-Glasmore EDs (17.69%), Swords (16.97%) and County Fingal (17.01%) travel between 15 and 24km, compared to the combined Dublin local authorities (9.08%) and Ireland (10.36%). This illustrates the dependence of Swords including the subject area on employment opportunities in Dublin (the city centre is some 20km from the Oldtown-Mooretown area by road).

A lower proportion of the population of the combined Swords-Lissenhall and Swords-Glasmore EDs (17.83%) travels to work, school or college on foot or by bicycle compared to Swords (19.84%), and the combined Dublin local authorities (24.02%).

A lower proportion of the population of the combined Swords-Lissenhall and Swords-Glasmore EDs (18.07%) travels to work, school or college by bus or train compared to Swords (18.45%), and the combined Dublin local authorities (22.11%).

A higher proportion of the population of the combined Swords-Lissenhall and Swords-Glasmore EDs (55.95%) travels to work, school or college by private transport compared to Swords (54.92%), and the combined Dublin local authorities (46.13%).

These figures can be attributed to the suburban nature of the subject area, and a relative lack of availability of public transport in Oldtown-Mooretown compared to the Dublin city region generally.

Retail

The retail and service needs for the north west Swords area, within which Oldtown-Mooretown is situated, are currently met by Applewood, Brackenstown and Rathbeale Neighbourhood Centres. The main food convenience shopping in this area needs to be augmented as there is currently under-provision of services to meet the existing needs of residents.

Human Health – Water Supply

The maintenance of a safe and adequate supply of potable water is critical to human health. Fingal County Council Water Services Department is responsible for the delivery of water to the subject area.

There are three existing water mains on the LAP lands. An 800mm diameter trunk water main serving Balbriggan follows the western boundary of the Mooretown lands before traversing Oldtown from south west to the north east. A 150mm water main runs alongside the Rathbeale Road, and a 250mm diameter water main runs along the length of the temporary Glen Ellan Road extension to the temporary schools. In addition there is an existing surface water pipe along the eastern boundary of the development lands. The majority of the drinking water supplied to Swords comes from the Leixlip Plant on the Liffey, via a reservoir at Ballycoolen. There are plans for expansion of the Leixlip Plant by the end of the 2nd Quarter 2011, and the *Water Supply Project – Dublin Region* is currently assessing the strategic need and source options for a new water supply source for the Dublin Region to facilitate further development.

The EPA Provision and Quality of Drinking Water in Ireland Report 2006-2007 indicated that Fingal County Council exceeded the minimum monitoring requirements as outlined in the European Communities (Drinking Water) Regulations (No. 2), 2007. The Report also indicates that the overall rate of compliance with quality values (98.5%) was above the national average and the quality of water in Fingal was generally good.

Human Health – Wastewater Treatment

The Swords wastewater treatment plant (WWTP), which discharges into the Broadmeadow Estuary downstream of the LAP lands, is operating at its design capacity of 60,000 population equivalent (p.e.). A Habitats Directive assessment carried out in support of the application for a discharge license for the WWTP indicated that there is no significant impact resulting from current level of discharge.

In order to accommodate development of the LAP lands (and any other development in the service catchment of the Swords WWTP) the capacity of the WWTP will need to be increased. Fingal County Council intends to upgrade the plant to 90,000 p.e. in the medium term and to 140,000 in the long term. The medium term expansion is expected to be complete by end of 2012.

A 450mm diameter waste pipe runs from west to east through the north of the Oldtown and Broadmeadow lands, and a 500mm diameter waste sewer through the south of the lands. These pipes discharge into the public 600mm diameter waste water sewer at Balheary Road. The Greater Dublin Strategic Drainage Study (GSDSDS) modelled the Swords foul drainage network. A number of deficiencies were identified in the network downstream of the proposed lands. It is planned to address the deficiencies in the network as part of the upgrading of the Swords foul drainage networks.

Human Health - Air and Climate

Fingal County Council does not conduct any ambient air quality monitoring in the county. However, ambient air quality monitoring is undertaken by the EPA at the Fingal County Council depot, Watery Lane, Swords. Continuous monitoring is completed for ozone and nitrogen oxides. Swords is in Zone A, Dublin Conurbation. This monitoring commenced at the beginning of 2010 and data collected has not been validated. A snapshot of the period between 3 March to the 10 March 2010 available on the EPA website shows that both ozone and nitrogen oxide levels are well within the limits of 180 µg/ m³ and 200 µg/ m³ respectively and considered good levels by the EPA.

Human Health - Noise/Vibration

Noise mapping of Fingal was conducted for the Dublin agglomeration and presented in the report “Dublin Agglomeration Action Plan relating to the Assessment and Management of Environmental Noise” for the period July 2008 to November 2013. This report proposes ‘undesirable’ noise levels of 55 dB for night-time and 70 dB for daytime.

Noise mapping results for Central Fingal show the daytime and night-time levels for Mooretown in its entirety and the southern section of Oldtown. From Figures 7.8 and 7.9, it is evident that the undesirable noise levels in the LAP lands are focused around the Rathbeale Road where daytime levels of 70 dB are approached with night-time levels of 60 dB. These levels decrease to 55-60 dB during daytime hours and 45-50 dB during night-time hours when moving away from the road. This would confirm the main findings from the Fingal noise mapping where traffic noise is considered the dominant source in Fingal.

Human Health - Waste Management

Fingal County Council as part of the Dublin Local Authorities developed the Waste Management Plan for the Dublin Region 2005-2010. Fingal provide a three bin collection service which include a brown bin (compostibles) service. There is one landfill in Fingal, Balleally landfill operated by Fingal County Council. There are three authorised treatment facilities with Nevitt landfill granted planning permission in October 2009 by An Bord Pleanala.

7.6.1 Primary environmental issues of relevance to the LAP

- The combined Swords-Lissenhall and Swords-Glasmore EDs increased in population by 23% between 2002 and 2006, which is roughly equal to the growth of Swords and County Fingal, and substantially higher than the national increase of just over 8%.
- In 2006 the proportion of houses (85%) relative to apartments (11%) in the combined Swords-Lissenhall and Swords-Glasmore EDs (and in Swords and County Fingal) was substantially higher than in the combined Dublin local authorities. This suggests that there is some potential/requirement to increase the mix of accommodation types (specifically apartments relative to houses) and thereby the residential density, to bring the subject area and Swords closer to that of the regional norm (Dublin City and Suburbs) and towards the 'thriving vibrant consolidated major town – an emerging city' envisaged in the Strategic Vision for Swords 2035.
- In 2006 the percentage of the total population in the 0-4 year age cohort was approximately 10.3% in the Swords-Lissenhall ED, compared to 8.4% in Swords and 8.8% in County Fingal. It can be expected that the form of development to take place in the LAP lands will be similar in nature (in terms density, accommodation type, etc.) to that in the Swords-Lissenhall ED. The higher proportion of families with young children will have implications for the range of social services, facilities and amenities required to serve the population.
- The Department of Education and Science has indicated that for the education needs of the projected population of the subject area to be met, the two planning-approved schools in Oldtown will have to be built, a planning-approved 8 classroom school in neighbouring Applewood will have to be upgraded to 16 classrooms, and a new school campus of 5.7ha for both primary and secondary facilities will have to be provided in Mooretown, with provision for an additional 16 class primary school on the adjoining lands. The lands therefore will need to provide for 4 primary schools and 1 secondary school.
- The HSE has indicated that a new local needs medical centre will be required to serve the projected population of the subject lands, located in either Oldtown or Mooretown or both.
- A relatively high proportion of the workforce of the subject area is employed in agriculture, forestry and fisheries, and in transport and communications, reflecting the area's proximity to the north County Dublin agricultural industry and to Dublin Airport. There is a relatively low proportion of the workforce employed in professional services.
- A relatively small proportion of the population of the subject area travels less than 5km to work, school and college, indicating a lack of employment and education opportunities within walking distance. Accordingly, a relatively low proportion of the local population commutes on foot or by bicycle.
- A relatively low proportion of the population of the subject area commutes by bus or train, while a higher than average proportion travels by private vehicle. This suggests a lack of availability of public transport in the area.
- The quality of potable water in Fingal is generally good. Water supply infrastructure exists in the form of three water mains traversing the LAP lands. However, development will be dependent on expansion of the capacity of the Leixlip Plant on the River Liffey (which serves the entire Dublin Region), or on an additional supply source being identified and developed if required (to be determined by the *Water Supply Project – Dublin Region*).
- The Swords WWTP is operating at its design capacity. Development of the LAP lands will be dependent on the expansion of the WWTP capacity.

7.6.2 Evolution in the absence of a LAP

The LAP lands are zoned RS1, 'to provide for new residential communities *in accordance with approved local area plans and subject to the provision of the necessary social and physical infrastructure*'. In the absence of a LAP there would be no additional schools built.

7.6.3 Identified significant gaps in baseline information and identified alternate data sources

The 2006 census results can be considered out of date given the major changes in the Irish economy over the last two years. Until the results of the next census (due to take place in 2011) are made available there is no alternative data source of similar scope or quality however.

7.7 Cultural Assets

This section of the baseline was compiled from reports prepared by Margaret Gowan & Associates.

There are no recorded archaeological monuments listed in the Record of Monuments and Places (RMP) located within the LAP area. However, an ecclesiastical site and associated field system of Early Medieval date has recently been discovered in the southern section of Oldtown and in the northern section of Mooretown, the site has been subdivided by the Rathbeale Road. This site has been reported to the authorities and is recommended for inclusion in the RMP. A number of recorded archaeological monuments are located within 1km of the study area. The most relevant sites to the study area, considering the recent discovery within Oldtown & Mooretown is an abbey church (DU011-019) and a holy well (DU011-018) located c.400m to the southeast of the study area in the townland of Mooretown.

Since 2003, the LAP lands have been subject to a succession of progressive non-invasive (desk study, field walkover survey and geophysical survey) and invasive (monitoring of topsoil stripping and test excavation) archaeological investigations. The focus of these investigations has been to provide a detailed archaeological assessment for consideration in the development of the LAP.

The following is a schedule of archaeological surveys undertaken since 2003 at the Oldtown site; which included a desk study, field walkover survey, geophysical survey, monitoring of topsoil stripping and two phases of archaeological testing; a report has accompanied each phase of archaeological work on the site and has been submitted to the relevant authorities. Due to its proximity and obvious archaeological associations it also includes reports on the Mooretown area to the south.

- Nicholls, J. (July, 2003) Geophysical Survey, Lands at Oldtown, Swords, North County Dublin. Licence No. 03R095. Unpublished report, Margaret Gowen & Co. Ltd.
- Baker, C. (August, 2003a.) Archaeological Assessment, Oldtown, Swords, County Dublin. Licence No. 03E1080. Unpublished report, Margaret Gowen & Co. Ltd.
- Baker, C. (September, 2003b.) Archaeological Assessment [of an] Access Road, Oldtown, Swords, County Dublin. Licence No. 03E1080 (ext.). Unpublished report. Margaret Gowen & Co. Ltd.
- Baker, C. (September, 2003c.) Archaeological Monitoring [of an] Access Road, Oldtown, Swords, County Dublin. Licence No. 03E1080 (ext.). Unpublished report, Margaret Gowen & Co. Ltd.
- Baker C. 2004 'A lost ecclesiastical site in Fingal' in Archaeology Ireland Vol. 18 No. 3 (Autumn 2004).
- Stephens, C. (November, 2005) Geophysical Survey Report, Oldtown, Swords, North County Dublin. Licence No. 05ER139. Unpublished report, GSB Prospection on behalf of Margaret Gowen & Co. Ltd.
- Jordan, J. (December, 2005) Archaeological, Architectural & Cultural Heritage Appraisal, LAP, Oldtown, Swords, Co. Dublin. Unpublished report, Margaret Gowen & Co. Ltd.
- Jordan, J. (December, 2005). Archaeological, Architectural & Cultural Heritage Appraisal, LAP, Mooretown, Swords, Co. Dublin. Unpublished report, Margaret Gowen & Co. Ltd.
- Leigh, J. (March, 2006) Geophysical Survey Report, Mooretown, Swords, County Dublin. Licence No. 05R170. Unpublished report, Margaret Gowen & Co. Ltd.
- Bolger, T. (July, 2006) Archaeological Assessment, Oldtown/Mooretown, Swords, County Dublin. Licence No. 06E0578. Unpublished report, Margaret Gowen & Co. Ltd.
- Deery, S. (September, 2006) Strategic Environmental Assessment. Unpublished report, Margaret Gowen & Co. Ltd.
- Frazer, W.O. (September, 2007) Archaeological Assessment, Permanent School, Rathbeale Road, Oldtown, Swords, Co. Dublin. Licence No. 06E0578ext. Unpublished report, Margaret Gowen & Co. Ltd.
- Thébaudeau, B. (February, 2008) Geophysical Survey Report, Mooretown Local Area Plan. Licence No. 08R0026. Unpublished report, Margaret Gowen & Co Ltd.
- Frazer, W.O. & Eriksson C. (July, 2008) Archaeological Assessment, Mooretown Local Area Plan, Mooretown Townland, Swords, Co Dublin. Licence No. 08E0303. Unpublished report, Margaret Gowen & Co Ltd.
- Harrison, D. (November, 2009) Geophysical Report Oldtown Swords, Co Dublin. Licence No 09R0217. Unpublished report, Margaret Gowen & Co Ltd.
- McQuade, M. (December, 2009) Archaeological Assessment, Oldtown Swords, Co Dublin. Licence No. 09E562. Unpublished report, Margaret Gowen & Co Ltd.

Other archaeological surveys outside the LAP investigations but relevant is:

- Halliday, S (2004) Report on Archaeological Testing Mooretown, Swords, Co. Dublin Licence No. 04E0543 Unpublished report. Arch-Tech Ltd.

The surveys have enabled the identification of a significant Early Medieval ecclesiastical complex with burials dating to the first millennium AD in the southern half of the Oldtown lands which extended further south into the townland of Mooretown. The complex is entirely subsurface and has no aboveground indication, it presents only as natural ridges within a greenfield. The archaeological surveys carried out to date in the Oldtown/Mooretown LAP areas has meant that a previously unknown subsurface site comprising both ritual and occupational activity has emerged in the landscape.

Table 7.7 lists the recorded archaeological monuments and sites revealed from archaeological investigation throughout the LAP lands. The field numbers used are consistent with previous archaeological reports.

Table 7.7: Recorded Archaeological Monuments and Sites

Area	Site Type	Date	Townland
Area 1	Ecclesiastical complex	Early Medieval	Oldtown
Area 2	Associated annexes (secular and agricultural activity) associated with Area 1	Early Medieval	Mooretown Field 13
Area 3	Medieval settlement (in the vicinity of recorded monument DU011-019, Abbey, Church site)	Medieval	Mooretown Field 2
Area 4	Natural spring source for the recorded holy well of St Cronan's (DU011-018)	Early Medieval	Mooretown Field 3
	Fulacht fiadh	Bronze Age	
Area 5	Ringfort	Early Medieval	Mooretown Field 5
Area 6	Fulacht fiadh and ringditch	Bronze Age	Mooretown Field 17
Area 7	Ditches	Possibly prehistoric	Mooretown Field 8
Area 8	Water mill	Early Medieval	Mooretown Field 9
Area 9	Millrace, pits and ditches	Possibly early medieval	Mooretown Field 16
Area 10	Ditches	Possible post medieval	Oldtown Field 1

In order to facilitate the provision of open space and the protection and maintenance of archaeological features in such a sensitive archaeological landscape a conservation plan has been commissioned by Fingal County Council in association with the National Monuments Section of the DoEHLG.

This Conservation Plan was integrated into the LAP for the lands at Oldtown and Mooretown in County Fingal. The objective of the LAP is to assist in the decision making and design process for these lands and to inform the planners, landowners and future users of the landscape of the archaeological significance and sensitivity of the below archaeological remains within these lands.

The LAP comprises the following sections:

- Understanding the archaeological remains
- Documenting the significance of each site within the LAP lands
- Identifying issues which may affect that significance
- Writing policies to address the issues
- Suggesting mechanisms for implementation and review

Some of the hedgerows on the Oldtown lands mark the boundary of the historic townland.

7.7.1 Primary environmental issues of relevance to the LAP

The study identifies a range of key short-term and long-term issues for safeguarding the significance of the archaeological remains as:

- The protection of below ground sites within a changing environment and the development of the LAP lands so they have a meaningful expression and reason to be within the present landscape;
- Establishing the legal status of the sites;
- Given the non-visible nature of the remains, there are challenges regarding the identification and protection of remains;
- The hedgerows on the Oldtown lands mark the boundary of the historic townland, and are of cultural-historic value;
- Making these remains into an accessible historic landscape that individuals can relate to; and
- Provision of signage that can be adopted throughout Fingal so it becomes a recognisable brand.

7.7.2 Evolution in the absence of a LAP

The LAP provides the opportunity to provide a coherent vision for the integration, preservation and management of this below ground landscape into the development of a new vibrant residential, civic and commercial community.

There is a need to understand the archaeological remains as a significant heritage resource and its vulnerability and the need for protection. This means that development control measures can be proactive, location specific and sensitive to the particular requirements of the below ground remains.

Individual attempts at preservation and interpretation can be of limited value without the existence of an overall vision for the treatment of these sites. Without that larger picture, a mechanism for linkage between the remains, does not exist. In effect, appropriate protection and presentation of the remains can only be successfully achieved with a strong and secure long term 'vision' for the proposed development context of the lands at Oldtown and Mooretown.

As the LAP is being designed to incorporate the archaeological remains, it will be possible to assess the potential dividends of the preservation of remains and presentation as development occurs on a phased basis through out the site. This provides an opportunity to assess what works best in relaying information to the general public and to fine tune the conservation techniques in the future.

7.7.3 Identified significant gaps in baseline information and identified alternate data sources

There is sufficient baseline information to assess the impact of the LAP on cultural heritage.

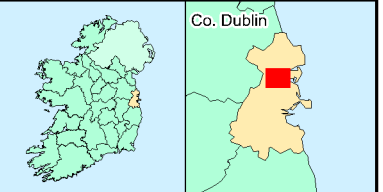
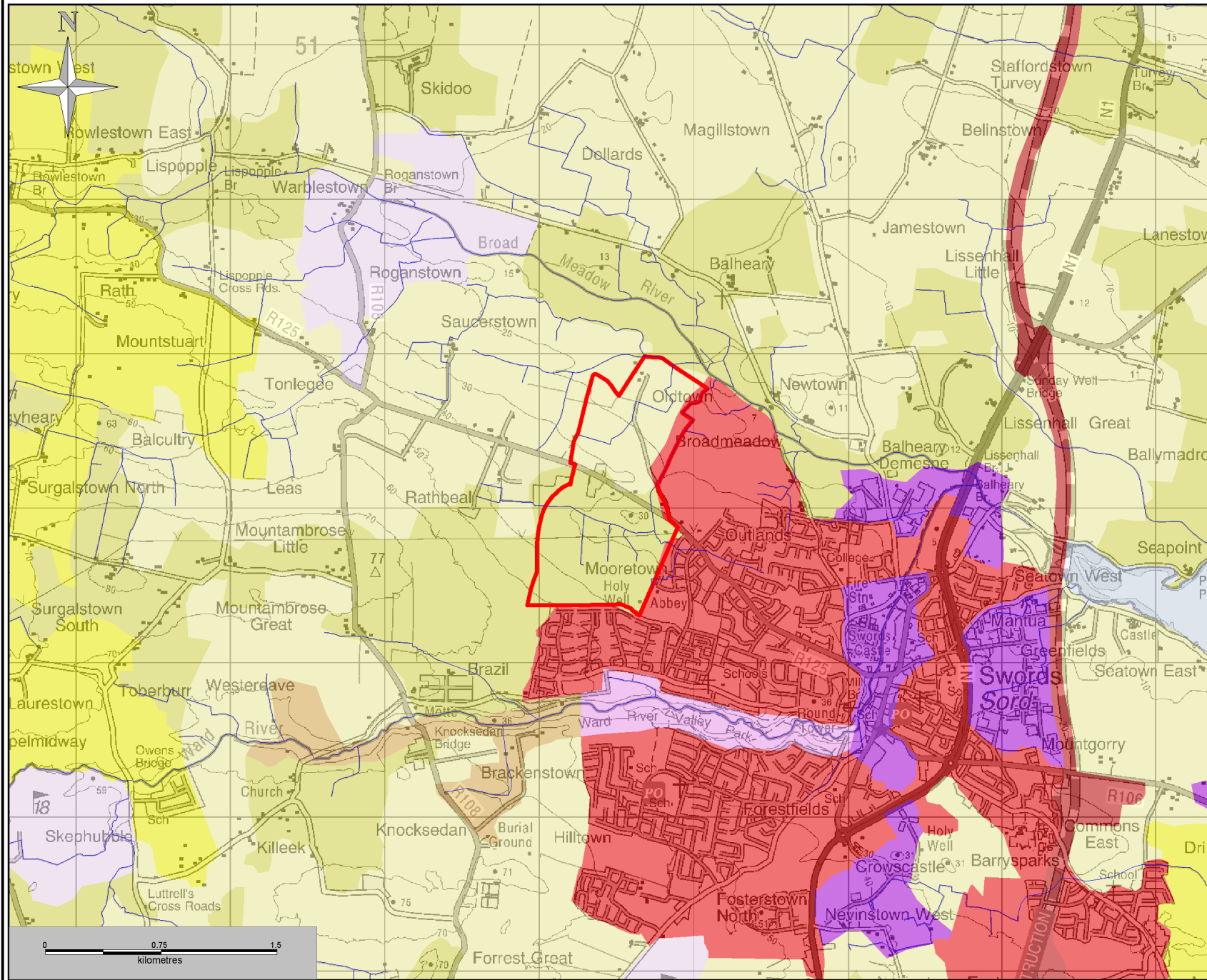
7.8 Material Assets

Land Use

The dominant land use in the Oldtown lands is non-irrigated arable land with the Mooretown lands being classified as pastures. These lands are abutted by the discontinuous urban fabric of Swords for the entirety of the eastern and southern LAP boundary. The western sides continue the land-use of Oldtown-Mooretown with further stretches of pasture and arable lands. Figure 7.11 illustrates the Corine land-use classifications for the LAP and adjacent lands.

Transport infrastructure

The LAP lands are served by the Rathbeale Road (R125) which bisects the Oldtown and Mooretown lands. This road is the primary road through north-western Swords. Assessment of this route by Fingal County Council has shown that there is limited traffic capacity which is insufficient to meet the transport needs of the LAP development.



Legend

LAP boundary

CORINE Land Use (2006)

- Complex cultivation patterns
- Discontinuous urban fabric
- Green urban area
- Industrial and commercial units
- Land principally occupied by agriculture
- Non-irrigated arable land
- Pastures
- Road and rail network
- Sea and ocean
- Sport and leisure facility

Data Source - EPA

Date 10/03/2010
Name of Client
Fingal County Council

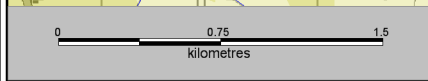
Name of Job
Strategic Environmental Assessment
of the Oldtown Moorestown Local Area Plan

Title of Figure
CORINE Land Use for
LAP Development Lands

Scales Used 1 : 20,000 @ A4
Figure No. 7.11
Rev A

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This road has no public transport facilities. However, the LAP proposes to develop a spur quality bus corridor (QBC) connecting the LAP lands to the R132 Dublin Road.

The lands are also served by an extension built to the Glen Ellan Road which was developed to service residential areas at Applewood and Glen Ellan. The road currently services the temporary school site at the western edge of the LAP lands. This road connects eastwards to a junction with the Balheary Road and provides a link to the R132, bypassing the Rathbeale Road.

The Swords Integrated Traffic model provides medium and long-term actions to improve and increase the transport infrastructure.

In the long-term, the Swords Western Ring Road (SWRR) is proposed to bypass Swords and provide a direct link from the M1 to the N2 north of the M50 which will connect with the Metro North Lissenhall Park and Ride site.

In the medium-term, the model proposes that development of these lands require;

- Development of the Western Distributor Link Road and Inner Ward River Valley Crossing – these proposals serve a more local need for development of the lands than that of SWRR;
- Enhancement of existing junctions in the area;
- A quality bus route; and
- Integrated pedestrian and cyclist network.

Waste Management

Fingal County Council as part of the Dublin Local Authorities developed the Waste Management Plan for the Dublin Region 2005-2010. Fingal provide a three bin collection service which include a brown bin (compostibles) service. There is one landfill in Fingal, Balleally landfill operated by Fingal County Council. There are three authorised treatment facilities with Nevitt landfill granted planning permission in October 2009 by An Bord Pleanála.

Wastewater treatment

There is an existing 500 mm foul sewer through the southern Oldtown lands and a 450 mm sewer through the northern section. These lines connect with the existing network at Applewood/ Glen Ellan. There are no existing foul sewers in the Mooretown lands.

The LAP lands will be serviced by the wastewater treatment plant (WWTP) in Spittal Hill, Swords as it currently services Swords and surrounding urban areas. This is referenced in Figure 7.12. The LAP identifies that the main source to the WWTP is domestic sources with some industrial including IPPC sources. The WWTP discharges to the Broadmeadow River.

The current design capacity of 60,000 p.e. (population equivalent) has been reached and there are immediate plans to upgrade the plant to 90,000 p.e. with a long-term view to upgrade to 140,000 p.e. The increase to 90,000 p.e. has received planning and there is deemed to be no significant impact on the Broadmeadow River at this capacity.

Currently there is no capacity in the WWTP for development in the LAP lands and the foul sewers require upgrading.

Water Supply

The lands will be serviced by the Leixlip Water Treatment Plant. This plant is approaching its maximum capacity with plans to upgrade and increase output by the end of 2013.

7.8.1 Primary environmental issues of relevance to the LAP

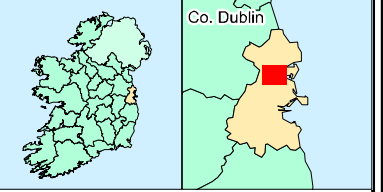
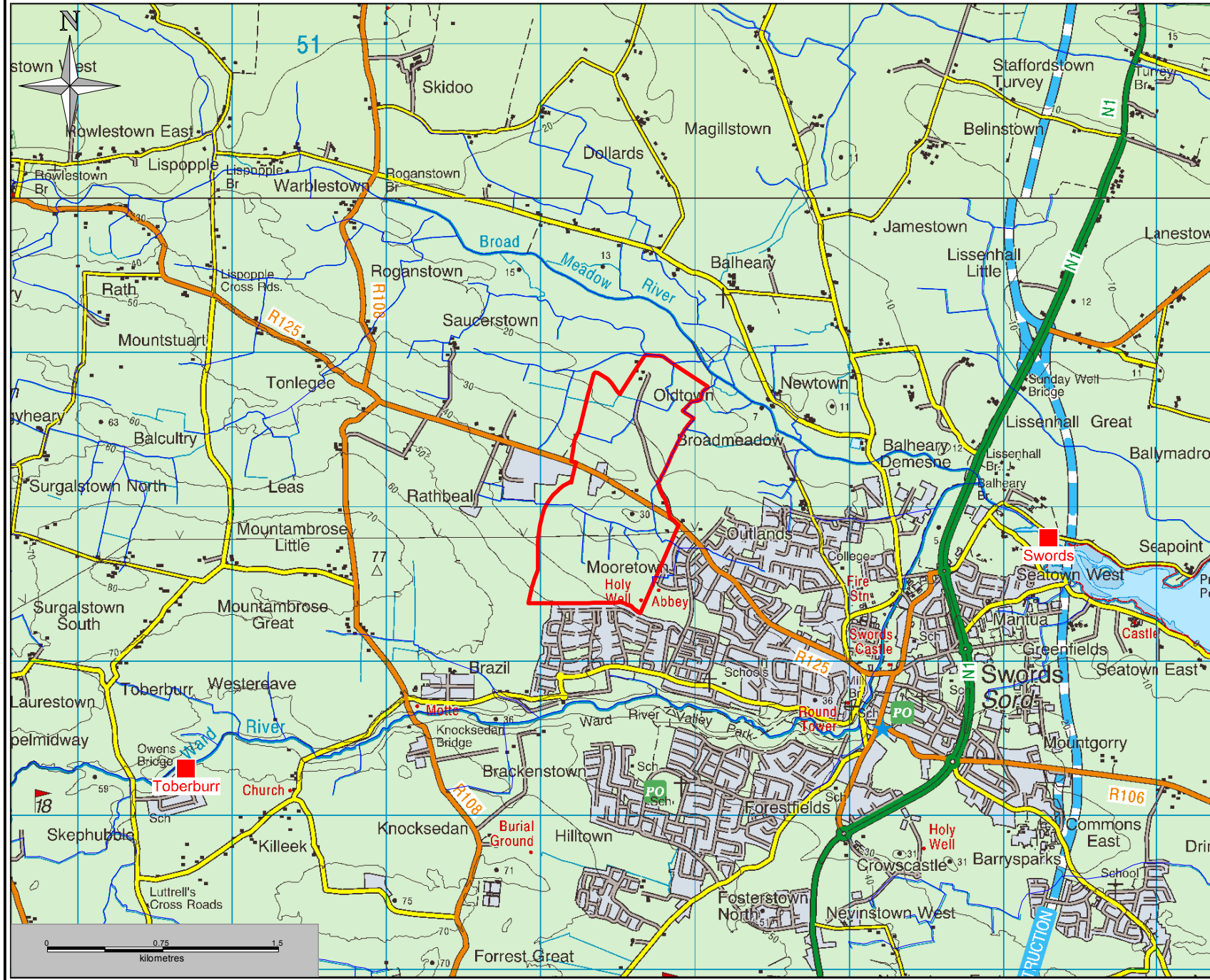
The primary issues relating to material assets and the development of these lands is the provision of infrastructure to support the proposed development. Infrastructural capacity of wastewater treatment, water supply, roads and amenities would need to be considered to ensure that development and infrastructure are progressed concurrently and the lack of infrastructure does not negatively affect the growth and sustainability of the area.

7.8.2 Evolution in the absence of a LAP

In the absence of a LAP, the development of the necessary infrastructure to support the development would not be controlled by the planning section. The LAP indicates the infrastructure necessary to support types of new development such as wastewater treatment, parking and amenity. Without a LAP, there would be different standards for imposing infrastructural requirements or no imposition of standards at all.

7.8.3 Identified significant gaps in baseline information and identified alternate data sources

There were no data gaps in the baseline information.



Legend

- LAP boundary
- wastewater treatment plant

Date	10/03/2010
Name of Client	Fingal County Council
Name of Job	Strategic Environmental Assessment of the Oldtown Mooretown Local Area Plan
Title of Figure	Material Assets in Vicinity of LAP Development Lands
Scales Used	1 : 35,000 @ A4
Figure No.	7.12
Rev	A

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7.9 Landscape

The subject lands straddle the boundary between the Airport and Swords Landscape Character Area (LCA) and the Rolling Hills with Treebelts LCA identified in the Landscape Character Assessment carried out for County Fingal in 2000. This provides an accurate description of the landscape, which is distinctly peri-urban in character, i.e. it displays both urban and rural elements and influences.

To the east and south of Oldtown and Mooretown there are low to medium density residential neighbourhoods (Ashton Broc, Glen Ellan, Applewood, Cianlea, Lioscian, Abbeyvale, Berwick and Ormond) extending towards Swords town centre. The buildings are generally two storeys in height, rising to four storeys (in Ashton Broc) adjacent to the Broadmeadow River Park. The houses to the east of Oldtown generally present their front facades towards the subject lands, and the boundary is defined by retained but unkempt hedgerows. The houses to the east and south of Mooretown generally present their rear facades towards the subject lands, and the boundaries are defined by a combination of concrete walls and retained hedgerow vegetation.

There are two locations where the public open space of neighbouring estates adjoins the subject lands. These are the linear Broadmeadow River Park which lies to the north of the Ashton Broc estate east of the Oldtown, and a park featuring the ruins of Glasmore Abbey in the Lioscian estate to the east of Mooretown. An extensive area immediately to the west and north of Oldtown (extending to the Broadmeadow River and contiguous with the Linear Park) has been identified as the location of the proposed Swords Regional Park.



Plate 7.2: Broadmeadow Linear Park (facing Oldtown lands)

To the north beyond the Broadmeadow River, and to the west (including the proposed Regional Park), the landscape is agricultural in character, comprising undulating fields divided by hedgerows. In north County Dublin this landscape includes sites of industrial agriculture and horticulture in the form of complexes of large greenhouses. One such site exists immediately to the west of Mooretown, set back behind a row of cottages fronting Rathbeale Road.

Topography of the Subject Lands

The subject lands fall some 35m in elevation over a distance of 1,800m from the southern boundary of Mooretown to the northern boundary of Oldtown which lies some 70m from the bank of the Broadmeadow River. The gradient is generally relatively shallow and even, in the range of 1:20 to 1:50 offering no impediments to development, except for minor local variations where the gradient approaches 1:10. There are drainage ditches along some of the field boundaries.

The Broadmeadow River forms a 'natural' northern edge to both the subject lands and the Swords urban area, and is a feature/resource of regional significance in terms of drainage, natural heritage and amenity value.

Present Use of the Subject Lands

The subject lands are predominantly agricultural in use, comprising gently sloping grassland and tillage fields divided by hedgerows and drainage ditches. The productive value of the land varies with elevation and slope; the relatively flat northern portion of Oldtown is poorly drained and apparently disused. Along the boundary between Oldtown and Mooretown there is a discontinuous corridor of development to both sides of Rathbeale Road, including a number of houses, a small-scale commercial property and two temporary school buildings accessed by a recently developed extension to Glen Ellan Road. Three overhead power lines traverse the site on various alignments.

Boundaries and Vegetation of the Subject Lands

The fields in the Oldtown area are large and irregularly shaped, while in Mooretown the fields are generally smaller and rectilinear in form. The hedgerows are variable in quality and condition. In Oldtown there are two hedgerows, both of which mark the Oldtown townland boundary. One follows a winding route north of the Glen Ellan Road extension to the western boundary of the subject lands. This hedgerow is maintained but contains no significant mature tree specimens. The other is in the south east of the Oldtown area beside Rathbeale Road. This hedgerow is unkempt and broken but contains a number of large trees. A shelter belt planted around a house in this area contains several large pine trees. In the Mooretown area there is a greater concentration of maintained hedgerows. These include some tree lines and mature specimens but no features of significance in terms of habitat or visual amenity.

Visual Amenity of the Subject Lands

The subject lands are peri-urban in character and contain no significant topographic features, vegetation or buildings. Although partially interrupted by boundary and internal hedgerow vegetation, views are afforded across the lands from the certain houses, open space and roads in the neighbouring estates, and from Rathbeale Road (the Fingal County Development Plan 2005-2011 includes an objective to protect the view north from Rathbeale Road across the Oldtown lands). However in its present condition the landscape of the subject lands provides limited amenity value to any visual receptors.

The quality of views from within the subject lands is variable. In Oldtown the relative lack of visual enclosure (due to fewer field boundaries/hedgerows) and the topography combine to afford extensive views over the Broadmeadow River and agricultural lands towards the distant northern uplands. The quality of the view is however tempered by the disused agricultural lands towards the north end of Oldtown, and the abrupt urban edge between the Oldtown lands and the neighbouring estates to the east. There is greater visual enclosure within the Mooretown lands, limiting the extent of views across the surrounding landscape. Visual amenity is further limited by the residential estate to east and south (with houses presenting their rear facades to the subject lands) and an industrial agricultural site to the west.

7.9.1 Primary environmental issues of relevance to the LAP

- The subject lands are peri-urban in character, displaying both urban and rural elements and influences.
- The subject lands are predominantly agricultural in use, comprising gently sloping grassland and tillage fields divided by hedgerows and drainage ditches. The hedgerows in Oldtown mark the historic townland boundary.
- The subject lands drain directly into the Broadmeadow River, which lies some 70m to the north of the LAP area. The Broadmeadow River forms a natural northern edge to both the subject lands and the Swords urban area (pending the realisation of the Lissenhall Strategic Development Area as envisioned in the Strategic Vision for Swords 2035), and is a feature/resource of regional significance in terms of drainage, natural heritage and amenity value.
- Along the boundary between Oldtown and Mooretown there is a discontinuous corridor of development to both sides of Rathbeale Road, including a number of houses, a small-scale commercial property and two temporary school buildings accessed by a recently developed extension to Glen Ellan Road. The temporary schools are to be replaced by a permanent development (planning-approved), also set back from Rathbeale Road.
- The lands are to be traversed north to south (close to and roughly parallel with the western boundary) by the proposed Swords Western Distributor Link Road.

- The landscape to south and east of the subject lands, extending towards Swords town centre, comprises low to medium density residential estates. The transition/edge between the estates and the rural environs (including the subject lands) is poorly defined and unsightly.
- There are two locations where the public open space of the neighbouring estates adjoins the subject lands. These are the linear Broadmeadow River Park which lies to the north of the Ashton Broc estate east of Oldtown, and a park featuring the ruins of Glasmore Abbey in the Lioscian estate to the east of Mooretown.
- An extensive area immediately to the west and north of Oldtown (extending to the Broadmeadow River and contiguous with the Linear Park) has been identified as the location of the proposed Swords Regional Park.
- To the north beyond the Broadmeadow River, and to the west (beyond the proposed Regional Park), the landscape is agricultural in character and zoned GB, 'to protect and provide for a green belt to demarcate the urban and rural area...'.
'
- The County Development Plan 2005-2011 includes an objective to protect the view north from Rathbeale Road across the Oldtown lands. However in its present condition the landscape of the subject lands provides limited amenity value to any visual receptors.

7.9.2 Evolution in the absence of a LAP

The LAP lands are zoned RS1, 'to provide for new residential communities in accordance with approved local area plans and subject to the provision of the necessary social and physical infrastructure'. In the absence of a LAP there would be no significant change in the landscape except for the development of the planning-approved schools in Oldtown.

The majority of the subject lands (outside of the development corridor along the Rathbeale Road) would remain in agricultural use.

In terms of natural and cultural heritage, and residential, recreation and visual amenity value locally, the landscape would remain in a sub-optimal condition. The north western urban edge of Swords would remain poorly defined.

The partly established Broadmeadow River Park would remain unfinished, and would not connect to the proposed Swords Regional Park immediately to the west of the LAP lands, i.e. the Regional Park would be physically removed from the urban area that it is intended to serve. The proposed Rathbeale Archaeological Park would not be realised.

7.9.3 Identified significant gaps in baseline information and identified alternate data sources

The Fingal LCA carried out in 2000 is out of date. The Airport and Swords Landscape Character Area identified in that study is given relatively little attention (relative to the rural character areas) – there is no characterisation of the urban area. An up-to-date urban landscape characterisation study for Swords would be of use in strategic planning and environmental assessment.

8 ALTERNATIVE DEVELOPMENT SCENARIOS

8.1 Introduction

The development and assessment of alternatives (or options) is a legal requirement under the SEA Directive. Under Article 5 (O.J. 2001) plans and programme proponents should ensure that:

- Reasonable alternatives taking into account the objectives and the geographical scope of the plan or programme, are identified, described and evaluated (Article 5.1);
- The Environmental Report includes 'an outline of the reasons for selecting the alternatives dealt with' (Annex 1(h)); and
- A statement is prepared summarising 'the reasons for choosing the plan or programme as adopted, in the light of the reasonable alternatives dealt with' (Article 9.1(b)).

8.2 Identification and Development of Alternatives

Alternatives must be reasonable, capable of implementation, and should represent a range of different approaches within the statutory and operational requirements of a plan. However, the position of the development plan within the planning decision making hierarchy predetermines the scope of strategic alternatives available. For example, the higher the level of the plan the more strategic are the options which are likely to be available. Conversely, lower tier plans, such as LAPs, will be framed in a policy context set by the level(s) above them and thus strategic options may be limited (DoEHLG, 2004).

8.2.1 Planning Constraints

A number of significant constraints on potential development of the LAP lands combined to limit the extent to which alternative development scenarios could be explored in the preparation of the LAP. These constraints included planning issues, natural and cultural heritage, and existing development and infrastructure within and surrounding the LAP lands.

Most significant among the constraints is the County Development Plan 2005-2011 zoning objective RS1 which applies to the LAP lands: 'to provide for new residential communities in accordance with approved local area plans and subject to the provision of the necessary social and physical infrastructure'.

This zoning objective is reinforced in the non-statutory document Your Swords, An Emerging City, Strategic Vision 2035, which prescribes that the Oldtown-Mooretown LAP area will: 'contribute to and augment the local road network, as well as providing for additional residential development, with supporting retail and commercial development, as well as school facilities and recreational infrastructure'.

8.2.2 Local Constraints

The following existing features were additional constraints to the exploration of alternative arrangements of land use.

Existing transport infrastructure

This includes the Rathbeale Road and the Glen Ellan Road. Horizontal realignment of these roads was not considered possible due to the existing and planning-approved developments that they serve and archaeology in the area. The LAP does however include proposals for vertical realignment of Rathbeale Road and design changes to Glen Ellan Road to make them more suitable for public transport and more pedestrian orientated spaces, particularly in light of the location of approved schools at Oldtown.

Planning-approved schools in Oldtown

This impending development effectively determined the location of the local centre in Oldtown, negating consideration of alternatives, as it was considered good practice in sustainable land use and urban design to cluster the facilities.

Archaeological finds and the Conservation Plan for the ecclesiastical site (Rathbeale Archaeological Park)

The discovery and assessment of significance of the ecclesiastical burial ground limited the usage of the affected lands to conservation of the archaeology.

Field boundaries (hedgerows and drainage ditches)

It was considered good practice in urban design, particularly in terms of retention of landscape character and features, to retain the existing field boundaries where possible. In Mooretown in particular this principle limited the extent to which alternative road/block layouts was explored.

Existing and designated open space (Class 2 open space in neighbouring estates, Broadmeadow River Linear Park, Swords Regional Park)

The location of these facilities limited the extent to which alternative arrangements of land use could be explored in a number of ways: It was considered good practice to locate new Class 2 open spaces in the LAP lands adjacent to open spaces in the neighbouring estates, to maximise their combined value. This limited options for the location of new Class 2 open space. The location of the Swords Regional Park and Broadmeadow Linear Park was instrumental in positioning the higher density residential areas within the LAP lands.

Proposed transport infrastructure (Western Distributor Link Road)

The alignment of the proposed WDLR as proposed in the LAP was determined by the alignment of an existing 800mm trunk water main which traverses the LAP lands. It is required that a wayleave (free of buildings) be retained over the water main, and typically in urban areas this wayleave would be occupied by a road to maximise efficiency of land use.

The alignment of the WDLR along this route (as proposed in the LAP) would mean that the layout of the new Oldtown neighbourhood was dictated to some degree by the alignment of a water main. Since the alignment of the water main did not take cognisance of the natural and built landscape characteristics and features of the LAP lands this cannot be considered best practice in urban design terms. It would be preferable to allow urban design principles to guide the layout of the neighbourhood.

Such an alternative, i.e. re-routing the WDLR (and the water main) to improve the urban grain of the Oldtown neighbourhood, was considered. However this is a significant element of the water services infrastructure of the county and there would also be a cost associated with realigning the trunk watermain. It was decided that the SWDLR should be aligned with the existing water main and that the master plan for development of the Oldtown be prepared in tandem with the detail design of the SWDLR, so that this alignment can best be accommodated in the new urban layout.

8.3 Alternatives Decision Making

8.3.1 Do Nothing

The Oldtown-Mooretown LAP lands are zoned RS1 in the Fingal Development Plan 2005-2011: 'to provide for new residential communities in accordance with approved Local Area Plans and subject to the provision of the necessary social and physical infrastructure'.

Fingal County Council is legally required to prepare a Local Area Plan for lands zoned RS1, and in doing so, in accordance with the requirements of sections 18-20 of the Planning and Development Act 2000 as amended. Development cannot take place within these areas prior to the adoption of a LAP by Fingal County Council. As the LAP is required by the provision of the County 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.

8.3.2 Do Something

Due to the strategic objectives for the LAP lands outlined in Section 8.2.1 above no alternative land use classes to those included in the LAP, i.e. residential, schools, local centres and open space, were considered in the course of its preparation. The consideration of alternative development scenarios was effectively limited to variations of the spatial arrangements of these land use classes within the LAP lands.

In the do-something scenarios, there are key elements which must be included in the Plan and these are as follows;

- Provision of two primary schools within Oldtown lands.
- Provision of one primary school and one secondary school within Mooretown lands.
- Development of a network of parks throughout the plan lands, linked by pedestrian/cyclist routes to meet passive and recreational needs of the future population and to protect/highlight archaeological heritage of plan lands.
- Development of approx 29 hectares of active class 1 open space to the west of development lands in Swords Regional Park.
- Development of 2 Local Centres, one in Oldtown and one in Mooretown to serve their respective catchments.
- Development of Western Distributor Link Road.

The requirements detailed above with the constraints listed in Section 8.2 allowed for the development of two reasonable alternatives, namely, Medium to Low Density Development and Mixed Density Development.

Medium to Low Density Development

This development option provides for development at a medium density of 40-45 units per hectare across the majority of the plan lands including at the Local Centres, with low density provided for within the western sectors of the scheme. Medium density is 40-45 units per hectare and low density is between 35-39 units per hectare.

These figures combined give a total potential growth of 2,800 residential units within the LAP boundary. Taking an occupancy rate of 2.8 persons per household this produces a combined potential growth 7,800 persons.

This density range provides a soft transitional edge to the rural landscape and to the Broadmeadow Linear Park.

Mixed Density Development

This option proposes 3 ranges of residential densities from 35 units per/ha at the lower end of the scale to 50 units per/ha at the higher end. Higher density is between 46-50 units per hectare. Medium density is 40-45 units per hectare and low density is between 35-39 units per hectare.

These figures combined give a total potential growth of 3,700 units within the LAP boundary. Taking an occupancy rate of 2.8 persons per household this produces a combined potential growth approx 10,000 persons.

8.3.3 Environmental Assessment of Options

The do-nothing option could be considered a more preferable environmental option than developing the land for residential and community purposes. The development of this land causes the loss of greenfield land (although of a low ecological value), potential greater pressure on the Broadmeadow River (due to greater run-off) and an increase in ambient noise level (due to the significant transformation from agricultural lands to predominantly residential lands). However, this development is necessary for the future population of Swords to provide sustainable residential lands, open space amenities of local and regional value, and to provide greater connectivity for those living in the western areas of Swords. An additional benefit of the development over the do-nothing scenario is the greater protection afforded to the on-site archaeological heritage.

Since these lands were previously zoned for residential lands, the alternatives were limited to how the lands would be developed, as previously described. Local constraints including the existing transport infrastructure, the necessary protection of the significant archaeological finds and the Broadmeadow River presented Fingal County Council with limited development alternatives for the LAP lands.

When these options are compared for their environmental impacts, there is little to differentiate them.

The environmental assessment completed in Table 8.1 does not provide a more environmentally favoured alternative. The scenarios are assessed against the Strategic Environmental Objectives (described in Section 9). The priority of the LAP is provide high quality, sustainable residential development but not to the detriment of the surrounding environment. Both alternatives would provide this with the same level of environmental mitigation for the potential negative impacts determined in Table 8.1, SUDS management for high quality, uncontaminated surface water runoff together with a focus on renewable energies and energy conservation to mitigate air quality impacts.

The differentiator between the alternatives is how best the land available is developed so further ingress into agricultural land can be limited in future. A focus on low density growth is not the most sustainable use of land, particularly on green field sites. The provision of a high level of low density residential development could upset the mix of housing types and size within the town, resulting in an overprovision of low density housing. The lack of a higher density provision could also undermine the opportunity to develop a sense of place and creation of strong urban hubs at the Local Centres to support the local neighbourhoods of Oldtown and Mooretown.

The densities proposed in the mixed density option take cognisance of the impact of new development on existing neighbouring development, and protect the existing residential amenity of the area, while also recognising the need for the creation of an urban hub with the development of a Local Centre within both Oldtown and Mooretown. The density range proposed would ensure the success of the Local Centres proposed and the delivery of a range of community facilities, including provision of a primary care team within the Local Centre at Mooretown. Such a density range would also help to deliver a mix of housing types and sizes to compliment the existing housing stock while providing choice in the local housing market.

Table 8.1: Environmental Assessment of the Do-Something Scenarios

LEGEND	
Positive Impact	
Negative Impact	
Uncertain	
No impact anticipated	

SEA Environmental Objective	Medium to Low Density Development	Mixed Density Development
<p>Biodiversity, fauna and flora</p> <p>Objective B1</p> <p>Protect and enhance biodiversity</p>	<p>Poor inherent ecological value, unknown if development will enhance biodiversity through managed green corridors and sites</p>	<p>Poor inherent ecological value, unknown if development will enhance biodiversity through managed green corridors and sites</p>
<p>Water</p> <p>Objective W1</p> <p>Maintain or improve water quality to status objectives as set out in the Water Framework Directive (WFD) and protect and enhance the status of aquatic ecosystems and, with regard to their water needs, terrestrial ecosystems directly depending on the aquatic ecosystems.</p>	<p>Greater surface water runoff due to development of lands. A SUDS strategy is provided, however, which reduces the risk of flooding downstream by attenuating to greenfield rates.</p>	<p>Greater surface water runoff due to development of lands. A SUDS strategy is provided, however, which reduces the risk of flooding downstream by attenuating to greenfield rates.</p>

SEA Environmental Objective	Medium to Low Density Development	Mixed Density Development
Air/climatic factors: Objective AC1 Protect and enhance ambient air quality	Some negative impact predicted during construction (temporary - dust dispersion) and following completion (permanent - emissions from non-renewable heating and energy consumption)	Some negative impact predicted during construction (temporary - dust dispersion) and following completion (permanent - emissions from non-renewable heating and energy consumption). Higher emissions predicted from greater density planning.
Noise Objective N1 Minimise environmental noise	The WDLR is most likely source of ambient noise in the LAP lands, the road would have proceeded in the absence of the LAP therefore noise levels would have been affected in the absence of the LAP. Unlikely that residential areas will significantly affect ambient noise levels to "undesirable" levels	The WDLR is most likely source of ambient noise in the LAP lands, the road would have proceeded in the absence of the LAP therefore noise levels would have been affected in the absence of the LAP. Unlikely that residential areas will significantly affect ambient noise levels to "undesirable" levels
Soil (including minerals): Objective S1 Maintain the quality of soils	Loss of greenfield sites combined with poorer use of available lands	Loss of greenfield sites but Provision of mixed density housing allows for better use of lands
Population: Objective P1 Improve people's quality of life based on high quality residential, working and recreational environments and on sustainable travel patterns.	Permanent positive impacts through provision of a high quality, connected residential and community environment	Permanent positive impacts through provision of a high quality, connected residential and community environment
Objective P2 Ensure that a good mix of residential types, sizes and tenures is provided.	Permanent positive impact through the provision of new housing stock (assuming demand exists at the time of development).	Permanent positive impact through the provision of new housing stock more varied in type and size than at medium or low density. (This assumes demand exists at the time of development.)
Objective P3 Ensure that a good mix of quality employment opportunities is provided where they can be accessed by public transport.	Potential for provision of employment opportunities is limited by Residential zoning, but two Local Centres accommodating retail, service, office, educational, healthcare, recreational and community facilities would provide a quantity of employment opportunities for the new communities, accessible by the pedestrian and cycle network, and improved public transport.	Potential for provision of employment opportunities is limited by Residential zoning, but two Local Centres accommodating retail, service, office, educational, healthcare, recreational and community facilities would provide a quantity of employment opportunities for the new communities, accessible by the pedestrian and cycle network, and improved public transport.
Objective P4 Ensure that sufficient community services and facilities are provided, including education, childcare, primary health care, open space and recreation, retail and professional services.	Permanent positive impact through the provision of new community facilities and services in conjunction with residential development.	Permanent positive impact through the provision of new community facilities and services in conjunction with residential development.

SEA Environmental Objective	Medium to Low Density Development	Mixed Density Development
<p>Cultural heritage</p> <p>Objective CH1</p> <p>Promote the protection and conservation of the cultural, including architectural and archaeological, heritage</p>	Greater protection afforded to archaeological finds through LAP than without	Greater protection afforded to archaeological finds through LAP than without
<p>Material assets</p> <p>Objective MA1</p> <p>Maximise use of the existing built environment</p>	LAP developed cognisant of available and planned infrastructure	LAP developed cognisant of available and planned infrastructure
<p>Objective MA2</p> <p>Provide sufficient drinking water supply, and sufficient wastewater management capacity to accommodate the projected population of the subject area.</p>	Both the Swords Wastewater Treatment Plant and Leixlip Water Supply Plant are approaching capacity and have plans to upgrade over the coming years. They are also both under assessment by the EPA for non-compliances with wastewater discharge and drinking water standards. The provision of 7,800 population capacity within the lands puts further strain on these infrastructural resources and development will require assurances that the capacity is available to support the Oldtown Mooretown requirements.	Both the Swords Wastewater Treatment Plant and Leixlip Water Supply Plant are approaching capacity and have plans to upgrade over the coming years. They are also both under assessment by the EPA for non-compliances with wastewater discharge and drinking water standards. The provision of 10,000 population capacity within the lands puts further strain on these infrastructural resources and development will require assurances that the capacity is available to support the Oldtown Mooretown requirements.
<p>Landscape</p> <p>Objective L1</p> <p>Protect or, where appropriate, develop the character, diversity and special qualities of landscapes (including urban landscapes) in Fingal through conservation, planning, design and management.</p>	Significant change to existing greenfield landscape	Significant change to existing greenfield landscape

8.4 Preferred Strategy

By pursuing a mixed density growth option a more sustainable use of the land would be secured, while also accommodating a better transitional relationship with Swords Regional Park and maximising opportunities for natural surveillance of Broadmeadow Linear Park. This option provides a balanced community structure within the expanding town of Swords enabling people to trade up/down within the town.

9 STRATEGIC ENVIRONMENTAL OBJECTIVES

In SEA the level of detail used to describe the baseline is much less refined than in EIA. SEA uses a combination of objectives, targets and indicators to describe and monitor change and predict impacts of proposed plans and programmes on the environment (Therivel, 2004).

Objectives and targets set aims and thresholds that should be taken into account when assessing the impact of proposed plans on the environment. Indicators are used to illustrate and communicate impact in a simple and effective manner. Indicators can also be used to form the basis of a monitoring programme for the Plan, the results of which will inform the next review. The proposed monitoring programme will be outlined in more detail in Section 13.

9.1 Development of SEA objectives

The environmental objectives are derived from international, European and national policies on various aspects of the environment. Many of these policies have been transposed into Irish law and are now mandatory and need to be integrated and implemented in Development Plans at a county level.

The list of environmental objectives used in this report is based on the environmental topics set out in Paragraph F of Schedule 2B which is contained in the SEA Regulations which might be significantly impacted upon by the Plan. These include:

- biodiversity (flora & fauna)
- water
- air/climatic factors
- geology/soil
- population/human health
- cultural heritage
- material assets
- landscape
- and the interrelationships between these factors.

In the policy context review outlined in Section 3, the full set of environmental objectives of relevance to the LAP is set out. As part of the scoping exercise undertaken for this SEA and in consultation with the statutory consultees, the initial set of environmental objectives has been refined. This is described in Chapter 6.

The environmental objectives are developed from the protection goal for each environmental aspect. The protection goals are further explained in the second column of Table 9.1.

Table 9.1: Relevant Environmental Goals

Biodiversity	Protect and enhance biodiversity.
Population and Human Health	Improve people's quality of life based on high-quality residential, working and recreational environments and on sustainable travel patterns
Soils and Geology	Maintain the quality of soils and conserve geological resources
Water	Prevent deterioration in the status of any waters
Noise	Minimise environmental noise
Air and climate	Reduce all forms of air pollution and control greenhouse gas emissions
Material Assets	Maximise the use of existing infrastructure and plan for future needs
Cultural Heritage	Promote the protection and conservation of cultural heritage including architecture, archaeology, history and language
Landscape	Protect or, where appropriate, develop the character, diversity and special qualities of landscapes (including urban landscapes) in Fingal through conservation, planning, design and management.

The following section sets out the environmental objectives for the environmental aspects that are likely to be significantly affected by the LAP.

9.1.1 Internal compatibility of the SEA Goals

The internal compatibility of the SEA goals has been examined to identify potential areas of consistency and conflict between them, so that subsequent decisions can be firmly founded. For example, the goal to improve water quality is consistent with enhancing biodiversity and protecting human health. In some cases, there is no obvious relationship between the objectives, such as no direct link between improving soil quality and influencing climate change. However, there may be some conflict between material assets, landscape and soils. This is because for example the removal of rock from the ground during quarrying operations will result in the removal of soils and could potentially cause a visual impact. In respect of these conflicts mitigation measures will be suggested by this Environmental Report.

Table 9.2: Internal compatibility between SEA goals

	Water	Biodiversity	Cultural Heritage	Landscape	Population & human health	Soils	Material assets	Climate & air	Noise
1. Water Prevent deterioration in the status of any water		✓	0	✓	✓	✓	✓	✓	0
2. Biodiversity Protect and enhance biodiversity	✓		0	✓	X	✓	X	✓	✓
3. Cultural Heritage Protection & conservation of cultural heritage	0	0		✓	✓	✓	?	0	0
4. Landscape Protect and develop landscape character, diversity, special qualities and functions	✓	✓	✓		✓	✓	X	✓	0
5. Population & human health Improve quality of life	✓	X	✓	✓		✓	✓	✓	✓
6. Soils and geology Maintain quality of soils and conserve geological resources	✓	✓	✓	✓	✓		X	0	0
7. Material assets Max existing infrastructure and plan for future needs	✓	X	?	X	✓	X		✓	0
8. Climate & air Reduce all forms of air pollution Reduce carbon footprint	✓	✓	0	✓	✓	0	✓		0
9. Noise Minimise environmental noise	0	✓	0	0	✓	0	0	0	

Key

✓	Objectives are mutually supportive	X	Objectives in conflict	0	No obvious relationship between the objectives	?	Situation cannot be determined
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9.1.2 SEA Objectives

Based on the environmental goals in Table 9.1, Table 9.3 sets out environmental objectives on which the LAP was assessed. This table also details the criteria which the LAP will be assessed against.

Table 9.3: SEA Environmental Objectives

SEA Objective	Assessment Criteria
<p>Biodiversity, fauna and flora</p> <p>Objective B1</p> <p>Protect and enhance biodiversity</p>	<ul style="list-style-type: none"> • Conserve protected habitats and species • Prevent pollution release into upstream water bodies • Conserve the diversity of non-designated habitats and species • Maintain existing wildlife corridors and seek to increase connectivity between corridors
<p>Water</p> <p>Objective W1</p> <p>Maintain or improve water quality to status objectives as set out in the Water Framework Directive (WFD) and protect and enhance the status of aquatic ecosystems and, with regard to their water needs, terrestrial ecosystems directly depending on the aquatic ecosystems.</p>	<ul style="list-style-type: none"> • Promote sustainable water use based on a long-term protection of available water resources • Reduce progressively discharges of polluting substances to waters • Mitigate the effects of floods.
<p>Air/climatic factors:</p> <p>Objective AC1</p> <p>Protect and enhance ambient air quality</p>	<ul style="list-style-type: none"> • Reduce all forms of air pollution • Encourage sustainable travel to reduce need for private transportation • Minimise emissions of greenhouse gases to contribute to a reduction and avoidance of human-induced global climate change • Assess, plan and manage adaptation to climate change impacts
<p>Noise</p> <p>Objective N1</p> <p>Minimise environmental noise</p>	<ul style="list-style-type: none"> • Minimise environmental noise sources • Maintain good quality road surfaces to prevent annoyance of residents
<p>Soil (including minerals):</p> <p>Objective S1</p> <p>Maintain the quality of soils</p>	<ul style="list-style-type: none"> • Maximise the sustainable re-use of brownfield sites • Minimise the consumption of non-renewable sand, gravel and rock deposits • Minimise the amount of waste to landfill • Prevent ground contamination during development construction and in the design of services and utilities in the area
<p>Population:</p> <p>Objective P1</p> <p>Improve people's quality of life based on high quality residential, working and recreational environments and on sustainable travel patterns.</p> <p>Objective P2</p> <p>Ensure that a good mix of residential types, sizes and tenures is provided.</p> <p>Objective P3</p> <p>Ensure that a good mix of quality employment opportunities is provided where they can be accessed by public transport.</p>	<ul style="list-style-type: none"> • Provision of a range of house types, sizes and tenures, including Social and Affordable housing. • Promotion/encouragement of a modal shift to public transport. • Promotion/encouragement of pedestrian and cycle movement. • Minimised requirement for travel outside of neighbourhoods for community services and facilities. • Provision of primary and secondary education facilities locally. • Provision of childcare facilities locally. • Provision of primary health care facilities locally. • Provision of recreation opportunities, for all age groups, locally. • Provision of retail and professional services premises, locally.

SEA Objective	Assessment Criteria
<p>Objective P4</p> <p>Ensure that sufficient community services and facilities are provided, including education, childcare, primary health care, open space and recreation, retail and professional services.</p>	<ul style="list-style-type: none"> • Encouragement of good design for built development, open space and transport networks. • Limited population exposure to high levels of noise, vibration and air pollution. • Limited population exposure to water pollution, and promotion of water management (attenuation and pollution reduction), locally.
<p>Cultural heritage</p> <p>Objective CH1</p> <p>Promote the protection and conservation of the cultural, including architectural and archaeological, heritage</p>	<ul style="list-style-type: none"> • Promote best practice in heritage conservation and management • Ensure protection of individual sites and complexes • Identification and protection of archaeological features
<p>Material assets</p> <p>Objective MA1</p> <p>Maximise use of the existing built environment</p> <p>Objective MA2</p> <p>Provide sufficient drinking water supply, and sufficient wastewater management capacity to accommodate the projected population of the subject area.</p>	<ul style="list-style-type: none"> • Development of a sustainable transportation infrastructure which reduces the need for travel and journey length • Minimise waste production and introduce sustainable waste management practices • Wastewater and water supply infrastructure to provide for new developments • Reduce waste of energy, and maximise use of renewable energy sources
<p>Landscape</p> <p>Objective L1</p> <p>Protect or, where appropriate, develop the character, diversity and special qualities of landscapes (including urban landscapes) in Fingal through conservation, planning, design and management.</p>	<ul style="list-style-type: none"> • Contribute to the establishment of a comprehensive system of green infrastructure for Fingal (by the protection and enhancement of existing assets and the provision of new green spaces, connections and functions including amenity, recreation, biodiversity, cultural heritage, water management). • Provision of access to a hierarchy of connected open spaces providing a range of recreation opportunities. • Implementation of best practice in drainage management, locally and regionally, by means of SUDS. • Protection/enhancement of the landscape setting of key natural and cultural heritage assets through sensitive and responsive development. • Retention, where appropriate, of significant topographical, drainage and vegetative features. • Contribution to the quality of residential, working and recreational environments by ensuring high quality design. • Consideration of landscape character in the development planning process. • Maintenance of clear urban/rural distinctions.

9.1.3 Compatibility of the SEA Objectives and the LAP Objectives

The compatibility of the SEA objectives and the LAP objectives were assessed to determine if the LAP's strategic objectives were aligned with the environmental objectives and where the potential for negative impact could arise, Table 9.4.

Table 9.4: SEA Environmental Objectives

SEA Objective	Water	Biodiversity	Cultural Heritage	Landscape	Population & Human Health	Soils	Material assets	Climate & air	Noise
Accommodation of phased and integrated growth of Swords, primarily for residential use, with a supporting level of mixed uses at Local Centres/Neighbourhood Centres to serve the needs of the area and support the development of a sustainable community;	✓	X	0	✓	✓	0	✓	0	0
Creation of a permeable and legible movement network for future development, with access and circulation by all modes of transport linking the site internally and with the surrounding area;	X	X	0	0	✓	X	✓	✓	X
Provision of high quality recreational open space and amenity facilities to meet needs of the expanding population in this area;	✓	✓	0	✓	✓	✓	0	✓	✓
Increase in community facilities and health care facilities, in particular provision of additional schools to serve existing and future population;	0	0	0	0	✓	X	✓	0	0
Enhancement and preservation of existing archaeological sites and increase in appropriate usage and public acknowledgement of such sites.	0	0	✓	✓	✓	0	0	0	0

Key

✓	Objectives are mutually supportive	X	Objectives in conflict	0	No obvious relationship between the objectives	?	Situation cannot be determined
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The LAP's strategic objectives are designed to improve the quality of life for the population proposed for the LAP lands. In all cases, there is a positive interaction between the LAP and population/ human health objective. The SEA objectives which highlight the most conflict are biodiversity, landscape and soils. This is due to the loss of greenfield sites for building and transport development. The loss of greenfield sites will lead to loss of habitat, will negatively impact the existing rural landscape and require a loss of soils from construction.

9.2 Development of environmental objectives, targets and indicators

The purpose of indicators is to monitor the effectiveness of the LAP in meeting the environmental objectives and targets identified in this report. The methodology for the development and selection of the SEA indicators for the Plan has been based on:

- Identification of existing environmental problems
- The short-listing of a limited number of key indicators to keep the monitoring process manageable

The determination of the set of indicators used in this report has been informed by the baseline assessment and the scoping process. However, it should be noted that the final set is also influenced by the availability of existing and relevant indicators, current monitoring programmes and the scale of application. Where data has not been available one of the recommendations of this report is to put a collection and monitoring system in place.

Table 9.5: SEA Environmental Objectives, Targets and Indicators

SEA Objective		SEA Indicator	SEA Target
B1	Biodiversity, fauna and flora Conserve the diversity of habitats and protected species.	<ul style="list-style-type: none"> Percentage of unique habitats and species lost in designated sites through trending of regular habitat surveys. Provision of Article 6 assessments with developments proposed for sites overlying or potentially impacting Natura 2000 sites in study area. Broadmeadow River water quality status 	<ul style="list-style-type: none"> No loss of protected habitats and species during the lifetime of the LAP. Protection of Natura 2000 (SAC) sites in study area from significant effects of proposed developments Improvement or at least no deterioration in the Broadmeadow River by 2015
W1	Water Maintain or improve the quality of surface water to status objectives as set out in the Water Framework Directive (WFD), to protect and enhance the status of aquatic ecosystems and, with regard to their water needs, terrestrial ecosystems directly depending on the aquatic ecosystems.	<ul style="list-style-type: none"> Changes in receiving water quality 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 Provision of flood risk evaluations with proposed developments/ changes to land strategy with emphasis on flood risk management 	<ul style="list-style-type: none"> Improvement or at least no deterioration in surface water quality by 2015 Improvement or at least no deterioration in groundwater quality as per the WFD 'good' quality status by 2015 Prevention of flood damage to land and properties Adherence to The Planning System and Flood Risk Management –Guidelines for Planning Authorities (November 2009)
AC1	Air/climatic factors Protect and enhance ambient air quality and contribute to national climate change policy	<ul style="list-style-type: none"> Provision of new public transport routes on Rathbeale Road or road servicing LAP lands Provision of cycle lanes and walking routes EPA air quality indicators from Swords air monitoring station New residential buildings with a minimum A3 BER rating Development within 1:1000 year floodplain 	<ul style="list-style-type: none"> Number of new residential buildings with a minimum A3 BER rating % increase in use of public transport Increase numbers of cycle lanes and pedestrian routes in the study area Maintain or improve ambient air quality through reduction of private vehicle usage No development within 1:1000 year floodplain
N1	Noise Minimise environmental noise	<ul style="list-style-type: none"> Number of complaints from householders 	<ul style="list-style-type: none"> Maintain daytime noise levels to less than 70 dB Maintain night-time noise levels to 55 dB
S1	Soil (including minerals) Maintain the quality of soils	<ul style="list-style-type: none"> % of greenfield/open space retained of total available area Quality of surface water run-off 	<ul style="list-style-type: none"> LAP target for green space provision No contamination incidents

	SEA Objective	SEA Indicator	SEA Target
<p>P1</p> <p>P2</p> <p>P3</p> <p>P4</p>	<p>Population</p> <p>Improve people's quality of life based on high quality residential, working and recreational environments and on sustainable travel patterns.</p> <p>Ensure that a good mix of residential types and tenures is provided.</p> <p>Ensure that a good mix of quality employment opportunities is provided where they can be accessed by public transport.</p> <p>Ensure that sufficient community services and facilities are provided, including education, childcare, primary health care, open space and recreation, retail and professional services.</p>	<ul style="list-style-type: none"> • Preparation of master plans for development of Oldtown and Mooretown lands. • Provision of appropriate mix of house types and tenures in the LAP area. • Provision of adequate social and affordable housing in the LAP area. • Provision of local employment opportunities, including live/work units. • Provision of adequate Class 1 and Class 2 open space within walking distance of houses. • Provision of a network of connected green links/routes incorporating pedestrian and cycle routes throughout the LAP area. • Provision of adequate childcare and primary and secondary school facilities in the LAP area. 	<ul style="list-style-type: none"> • Submission of master plans for development of Oldtown and Mooretown lands to Fingal Co. Co., and approval of the master plans by Fingal Co. Co., prior to any planning applications for development. • All planning applications for development to be accompanied by a Design Statement detailing means of compliance with LAP objectives. • House type/size mix of maximum 20% one and two bed units and minimum 80% three bed units and larger. • Appropriate mix of tenure: a minimum of 80% of homes in private occupancy in all new development. • Provision and distribution of Social and Affordable housing in accordance with the Housing Strategy contained in the Fingal County Development Plan 2005-2011. • Provision of Class 1 and 2 open space in accordance with requirements of the County Development Plan 2005-2011. • Interconnection of all Class 1 and 2 open spaces by green links/corridors incorporating pedestrian and cycle routes. • Provision, in tandem with development and in accordance with phasing programme, of primary and secondary school facilities as per the stated requirements of the Department of Education and Science. • Provision, in tandem with development and in accordance with phasing programme, of premises for childcare facilities in accordance with the Guidelines for Planning Authorities 2001. • Provision, in tandem with development and in accordance with phasing programme, of premises for a 'Two Primary Care Team (2PCT) Centre', as per the HSE definition, in the Mooretown Local Centre. • Provision, in tandem with development and in accordance with phasing programme, of up to 10,000 sqm gross for retail and services, including the retail and service types listed in the LAP, in the Mooretown Local Centre. • Provision in tandem with development and in accordance with phasing programme, of retail and services, including the retail and service types listed in the LAP, in the Oldtown Local Centre. • Provision for retail and service types that will generate night-time activity in the Local Centres.

SEA Objective		SEA Indicator	SEA Target
CH1	<p>Cultural heritage</p> <p>Promote and protect the cultural, including architectural and archaeological, heritage</p>	<ul style="list-style-type: none"> Number of unauthorised developments permitted over the lifetime of the Plan which resulted in the loss or partial loss of protected structures or sites of archaeological status. Number of unauthorised developments in protected sites and complexes Number of unauthorised developments permitted which result in the loss or damage to archaeological features 	<ul style="list-style-type: none"> No unauthorised developments permitted over the lifetime of the LAP which will result in the loss or partial loss of protected structures or sites of archaeological importance Ensure that all planning applications that might have an impact on heritage are referred to the DoEHLG for comment and that their recommendations are adhered to. Use of National Heritage Plan (2002) in setting archaeological policies and principles No unauthorised developments in protected sites and complexes. No unauthorised developments permitted during the lifetime of the Plan which could result in damage to archaeological features
\MA1	<p>Material assets</p> <p>Maximise use of the existing built environment</p>	<ul style="list-style-type: none"> Number of private cars on road as a percentage of AADT Quantity of household waste sent to landfill Quantity of household waste sent for recycling Completion of WWTP upgrade to 120,000 PE capacity. 	<ul style="list-style-type: none"> Reduce the number of private vehicles on the road. Increase use of public transport. Production in the quantities of waste sent to landfill Increase in the quantities of waste sent for recycling Provision and upgrade to provide adequate wastewater infrastructure based on existing and forecasted population demands Implement the Water Supply Plan as per the Water Services National Investment Programme
MA2	<p>Provide sufficient drinking water supply, and sufficient wastewater management capacity to accommodate the projected population of the subject area.</p>		
L1	<p>Landscape</p> <p>Protect or, where appropriate, develop the character, diversity and special qualities of landscapes (including urban landscapes) in Fingal through conservation, planning, design and management.</p>	<ul style="list-style-type: none"> Identifiable incorporation of existing landscape characteristics and features into new development. Neighbourhoods with distinctive and diverse urban character, informed by local natural and built landscape character and features. Retention of protected views and other views identified as valuable. Extent of retention and connectivity of related landscape features, e.g. hedgerows. Extent of connectivity, by green links incorporating pedestrian and cycle routes, of Class 1 and Class 2 open spaces. 	<ul style="list-style-type: none"> All planning applications for development to be accompanied by a Design Statement detailing means of compliance with LAP objectives, for built development and related parks and strategic planting. Quantity of new, strategic planting for amenity and biodiversity, by area, in the LAP lands. Development of two neighbourhoods (Oldtown and Mooretown, with sub-areas) of distinct character defined by residential density, layout, and architecture. Degree of additional obstruction of views north from the archaeological park and Rathbeale Road. Proportion of existing hedgerow (by length) and mature trees (by number) retained in new development. All Class 1 and Class 2 open spaces to be connected to at least one other by a green link incorporating pedestrian and cycle routes. Provision of a distinct, legible approach route for vehicles, pedestrians and cyclists, through the Oldtown lands to an

SEA Objective		SEA Indicator	SEA Target
			identified main entrance to the Swords Regional Park. <ul style="list-style-type: none"> • Preparation of master plans for development and management of all parks identified in the LAP, linked to the approval of planning applications for residential and other development in the LAP area.

10 EVALUATION OF LAP POLICIES AND ALTERATIONS

The objective of this section is to determine the 'likely significant' effects of the LAP on the environment. The assessment methodology adopted here is based on the environmental objectives (Section 9) and the LAP objectives (as set out in the various chapters of the LAP). The environmental objectives of water, biodiversity, cultural heritage and landscape, human health, soils, geology, air and climate listed in Section 9 are individually assessed against the LAP objectives and policies.

The Oldtown-Mooretown LAP is set out as per table 10.1 below and the headings therein will be followed in assessing the LAP.

Table 10.1: Oldtown-Mooretown LAP

Executive Summary	
SECTION 1: CONTEXT	
1.0	Statutory Context
1.1	Purpose of Local Area Plan
1.2	Vision Statement
1.3	Strategic Planning Context
SECTION 2: CONTEXT – EXISTING ENVIRONMENT	
2.1	Strategic Location and Description of the Locality
2.2	Landscape and Visual Impact
2.3	Broadmeadow River: Link to a Designated Nature Conservation Area
2.4	Archaeological and Built Heritage
2.5	Existing Transportation Network
2.6	Existing Water Services Infrastructure
2.7	Local Retail Services
2.8	Schools
2.9	Recreational Facilities
SECTION 3: STRATEGIC VISION AND DEVELOPMENT STRATEGY	
3.1	Strategic Open Space and Recreational Framework
3.2	Movement Strategy and Transportation Infrastructure
3.3	Land Use Mix
3.4	Urban Design/Landscape Masterplan(s)
3.5	Water Services
3.6	Public Utilities
3.7	Building Design, Energy Efficiency and Sustainability
3.8	Construction Waste Management
3.9	SEA and AA
SECTION 4: PHASING AND IMPLEMENTATION	

10.1 Assessment criteria

The assessment criteria used here is based on the determination of the 'likely significant' impacts of the Plan's policies and objectives on the environmental objectives. The likelihood of an impact occurring on any of the environmental objectives are determined (based on expert judgment of the SEA team) and the significance and duration of the likely impact is then determined. The following criteria have been used to determine significance of an impact:

- *Positive or negative impacts*

A positive impact improves the quality of the environment by, for example, improving water quality, protecting sensitive habitats, or providing amenities for people.

A negative impact diminishes the quality of the environment by, for example, reducing species diversity or habitat loss, reducing air quality or water quality. A negative impact can be sufficiently minimised or eliminated by the adoption of appropriate mitigation measures.

- *Long-term and short-term impacts*

A short-term impact will usually last for the duration of a project for example the construction of a road or a wastewater treatment plant.

A long-term impact is normally the residual impact that remains after mitigation measures have been put in place. It may last 10 years or longer which is beyond the lifetime of the LAP.

- *Significant impact*

The likely significant effects of the implementation of the LAP on the environment, including impacts on biodiversity, population, human health, ecology, soil, water, air and climate, cultural heritage, landscape and the interaction of the above, must be investigated. The effects of the LAP on these topics should include quantification of the impacts as short-term, long-term, temporary, permanent and positive and negative.

The overall significance of an impact is dependant upon two factors – the size of the disturbance caused (magnitude) and the sensitivity of the receptor. The sensitivity of a receptor may be based on the legal status of a site, for example, a Natura 2000 site or a Natural Heritage Area. It may also be based on the proximity to population centres, schools, hospitals etc or it may be based on the importance of a resource, for example, groundwater for public drinking water supply or a site of archaeological importance. The magnitude of an impact will be dependant upon its duration and frequency.

Some policies or objectives listed in the LAP, for example, the provision of adequate wastewater treatment facilities, will have positive and negative, temporary and permanent and short-term and long-term impacts. The negative, temporary and short-term impacts will arise during development construction phases. The positive, permanent, long-term impacts will arise from the operation of the wastewater treatment plant to ensure compliance with regulatory wastewater quality standards. This will ensure that water quality in the receiving water body will maintain good quality status or improve to good water quality status by 2015.

10.2 Assessment of Draft LAP Policies and Objectives for the First Consultation Period

The LAP text is discussed in the following section with a detailed assessment of objectives and policies.

10.2.1 [Section 1 Context](#)

1.0 *Statutory Context*

The statutory context of plan relates to the background of the LAP and the requirements for a SEA and AA during Plan preparation. There are no objectives, policies or proposals within this section for assessment.

1.1 *Purpose of Local Area Plan*

This section of the Plan contains the overall strategic objectives for the Plan. These strategic objectives have been assessed against the SEA objectives in Table 9.4 in the previous section. The positive impacts from the Plan relate specifically to the local population where the Plan allows for the development of new residential areas supported by local community amenities, schools and health services together with a sustainable transport network. Potential negative impacts relate to the use of greenfield lands for the development and loss of habitat, negative impact on landscape and soils. .

1.2 Vision Statement

The vision statement of the plan provides the overriding purpose of the LAP which is to create an urban development which will provide an extension to the existing Swords Town.

“The Oldtown-Mooretown lands will be developed in a coordinated, sustainable way, as a unique urban extension connected to the existing town of Swords, a place with its own character and identity, where people can live, work, recreate and access various local services within a well defined area and be part of a sustainable community. The landscape and associated significant archaeological remains in this area present a unique opportunity for the creation of a quality amenity and historical reference point in the changing environment, a resource which can inspire and shape the evolving character and identity of this area.”

This vision statement re-iterates the positive impact that the LAP will have on population and human health. There are no explicit considerations of the environmental and the impact a residential development Plan will have on the existing environment.

1.3 Strategic Planning Context

This section of the Plan provides the national, regional and local context in which the Plan is developed. The national context considers

- The National Spatial Strategy
- Transport 21
- Delivering Homes, Sustaining Communities
- Guidelines for Planning Authorities on Sustainable Residential Development in Urban Areas (May 2009), and accompanying document Urban Design Manual – A Best Practice Guide (May 2009)
- Sustainable Urban Housing: Design Standards for New Apartments Guidelines for Planning Authorities (2007) and
- The Planning System and Flood Risk Management, Guidelines for Planning Authorities (November 2009).

These guidelines are directed towards spatial development, transport infrastructure and residential development.

The regional context is the Regional Planning Guidelines for the Greater Dublin Area 2004-2016.

The local development context arises from the higher level Fingal County Development Plan 2005-2011 which is being reviewed presently. This County Plan requires that the views across the LAP lands are preserved. In addition, the Plan also caters for the protection of the archaeological heritage of the site.

The Swords Variation 29 adopted in July 2008 provides for several objectives relating to lands in or adjacent to the LAP lands. These objectives are directed towards the availability and development of open space in and adjacent to the LAP lands, the development of Neighbourhood Centres and the provision of a local road network, namely the Oldtown-Mooretown Western Distributor Road. These objectives clearly complement the LAP strategic objectives in the provision of a sustainable and coordinated residential area.

A document was released in June 2008 providing a long term strategic vision for Swords, “Your Swords, An Emerging City, Strategic Vision 2035”. This document was released to aid in the development of the Metro North and provides a long term view to 2035. Section 9.4 of the document “Oldtown-Mooretown LAP Development Area” deals specifically with the LAP lands and considers the environmental constraints such as the Broadmeadow River and the existing trees/hedgerow on site.

10.2.2 Section 2: Context – Existing Environment

2.1 Strategic Location and Description of the Locality

There are no objectives or policies in this section to assess.

2.2 *Landscape Character and Visual Impact*

There are no objectives or policies in this section to assess.

2.3 *Broadmeadow River: Link to a Designated Nature Conservation Area*

The Broadmeadow River is recognised both as a support system for the Broadmeadow (Malahide) Estuary and as an amenity. While this section does not contain specific policies relating to this protection, the national legislation covering the estuary provides the protection needed.

2.4 *Archaeological and Built Heritage*

This section of the LAP discusses the various archaeological finds in the lands. There are no proposals or objectives within this section as there are key objectives provided in Section 3 of the Plan relating to heritage protection and promotion.

2.5 *Existing Transportation Network*

The transport proposals for the LAP lands are provided in Section 3 of the Plan.

2.6 *Existing Water Services Infrastructure*

Potable water supply, wastewater and surface water drainage are described. There is a regionally important water main running through the lands with a proposal to incorporate the wayleave in proposed open space to prevent the wayleave being enclosed within private property.

The issue of wastewater treatment capacity is raised here where the current sewage treatment capacity of 60,000 p.e. at the Swords WWTP has been reached. Proposals to extend the capacity to 90,000 and 140,000 p.e. are being investigated with the 90,000 p.e. upgrade occurring in the medium term. The vulnerability of the LAP in relation to additional wastewater treatment is recognised and any development proposed will be phased alongside the necessary increase in wastewater capacity.

2.7 *Schools*

The provision for schools necessary for the existing population and arising from the development of the LAP lands are provided in Section 3.3.8 of the LAP.

2.8 *Recreational Facilities*

Fingal County Council has identified a lack of open spaces in northwest Swords and are basing the design for recreational areas and open spaces on the Regional Park zoning to the immediate west of the LAP lands. The proposals for open space and recreational facilities are provided in Section 3.1 of the Plan, Strategic Open Space and Recreational Framework.

10.2.3 Section 3: Strategic Vision and Development Strategy

This section of the plan identifies a number of objectives designed to provide for the phased development in Oldtown-Mooretown. The key elements of the strategy are:

- Strategic Open Space and Recreational Framework
- Movement Strategy and Transportation Infrastructure
- Land Use Mix
- Urban Design Framework and Masterplan/s
- Water Services Infrastructure

- Building Design, Energy Efficiency and Sustainability
- Construction Waste Management

3.1 Strategic Open Space and Recreational Framework

The strategic open space and recreation framework for Oldtown-Mooretown comprises Rathbeale Archaeological Park, Broadmeadow River Linear Park and Sword Regional Park with Class 1 Open Space and the creation of connection between these open spaces in the LAP lands and the wider lands.

The Rathbeale Archaeological Park has a specifically developed conservation plan from which key objectives for archaeological protection have been used for the LAP. These are listed in Table 10.2.

Table 10.2: Key Objectives – Archaeological Heritage

- Seek the protection and preservation in situ of these early medieval and medieval monuments including the ecclesiastical site with burials, associated secular activity and field systems, holy well, mill site, ringfort and medieval secular farmstead.
- Seek the preservation of important views and prospects to and from the ecclesiastical site at Oldtown so as to preserve the setting of the monument and to increase the appreciation and character of the archaeological remains. Based on previous archaeological investigations, the Department have stipulated that a buffer area is to be established between any new development and the monument in order to ensure the preservation and enhancement of the feature within an archaeological park and amenity area.
- Require any earthmoving proposals for works within the LAP area to be reviewed by a suitably qualified archaeologist and that, where necessary, work is preceded by an appropriate assessment, designed to realise the full archaeological potential of the development area;
- Require the involvement of qualified and experienced archaeologists and landscape professionals in the detailed design, layout and management of the archaeological park and archaeological risk zones that are to be incorporated into the proposed development plans as open space areas;
- Provide for buffer zones around the known extent of the below-ground archaeology. The idea being that the exclusion zone is surrounded by a buffer zone that can tolerate more significant interventions such as planting, seating and playgrounds. This enables the outer fringes of the archaeological sensitive zone to be incorporated in a seamless manner within development proposals;
- Favour the minimal intervention landscape strategies to be employed at the archaeological park and other open space areas for the protection of the sensitive below-ground remains and avoidance of unnecessary disturbance;
- Require good quality, context-sensitive design for development proposals surrounding the open space areas and archaeological park so as not to detract from the character or setting of these sites by reason of the location, scale, bulk or detailing;
- Encourage the enhancement of the archaeological remains by signage, en route sculptures and pedestrian linkages to and from the below-ground sites;
- Require that appropriate programmes of regular maintenance are put in place and that all workers such as on-site landscape contractors or Fingal County Council Parks Department are aware of the importance of the below-ground remains.

These objectives have been designed for the inherent protection and promotion of the archaeological heritage in the lands, therefore have long-term positive impacts on cultural heritage. There are also indirect positive impacts on biodiversity and geology through the preservation of lands from development.

Informed by the Conservation Plan for the Rathbeale Archaeological Park the LAP includes an objective to protect views from the archaeological site towards the northern uplands of County Fingal. It is suggested that development north of the park should be 'located' so as to protect this viewshed.

The Broadmeadow Linear Park is being developed between the Broadmeadow River and the northern edge of the LAP boundary. This park will connect with the Regional Park and future potential to connect with the Ward River Valley Linear Park. The development of this park also indirectly prevents development within the Broadmeadow floodplain, creates a significant riparian zone and allows ecological connectivity between the river and future Swords Regional Park.

The key objectives for biodiversity, Table 10.3, also reflect these impacts and enforce the requirement for the protection of the Broadmeadow. These objectives specifically deal with the enhancement of ecological corridors through using existing hedgerows and trees and by developing these with further planting. The water quality of the Broadmeadow is specifically dealt with through objectives requiring protection of the watercourse and streams in the LAP lands and the provision of a SUDS strategy for development in the area. A separate objective provides for 10 m wide corridors on either side of existing streams.

Table 10.3: Key Objectives – Biodiversity

- Protect and enhance the biodiversity of the plan lands through the incorporation of existing trees and hedgerows within green corridors and development of strategic planting along the western boundary, in consultation with National Parks and Wildlife Service, and Eastern Regional Fisheries Board.
- Protect and manage the existing watercourses within the plan lands and provide 10m riparian corridors alongside these watercourses.
- Promote and implement sustainable urban drainage solutions within the LAP lands and protect the Broadmeadow River watercourse.
- Undertake a detailed tree/hedgerow survey and biodiversity study with habitat mapping as part of Masterplan(s) for the LAP.
- All new/reviewed/amended plans and development proposed within LAP lands which have potential to impact on the Broadmeadow River and potentially designated habitats will be required to prepare a Natura Impact Assessment in line with Article 6 of the Habitats Directive.

The LAP promotes the development of a connected, hierarchical, multi-functional network of public open space in the subject lands, making use of existing natural, cultural and open space resources. Adequate Class 1 and Class 2 open space will be provided for the projected population. The main landscape feature of the subject lands' environs is the Broadmeadow River. The LAP recognises the significance of the river in terms of drainage, natural heritage and amenity value by promoting the extension of the Broadmeadow Linear Park (which presently terminates to the east of the subject lands) as far as the designated the Swords Regional Park to the west of the subject lands. This will take place before occupation of any new dwellings. The LAP promotes the development of all necessary Class 1 open space for the new population in the Regional Park adjacent to the subject lands. This will take place during Phase 1 of the lands' development. The LAP promotes the development of an archaeological park at the site of an ecclesiastical discovery on the lands, in accordance with the Rathbeale Archaeological Park Conservation Plan. The LAP promotes the development of Class 2 open space on the subject lands where the public open space of adjacent estates abuts the subject lands, to increase the value and connectivity of existing open space. The LAP promotes the incorporation of SUDS measures into public open space, and their design for amenity enhancement where appropriate. These objectives will have permanent, positive impacts on the future population of the subject lands, and for the wider community (given the strategic importance of the Broadmeadow Linear Park and the Regional Park).

Table 10.4: Key Objectives – Public Open Space and Recreational Facilities

- Develop the lands zoned Open Space within the Swords Regional Park to the west of Oldtown for active Class 1 recreational needs associated with LAP lands.
- Extend the Broadmeadow River Valley Park into the proposed Regional Park and provide safe and good quality access to and permeability between the Parks and the adjoining lands.
- Develop strategic planting, physical connections, and visual linkages between the Green Road Corridor of the Western Distributor Road and the Ward River Valley Park and Broadmeadow Linear Park, linking in with an internal network/green corridor of open spaces within the LAP lands.
- Develop a network of green corridors within the LAP lands and ensure a high level of connectivity and accessibility through the incorporation of key green cycle and pedestrian routes.
- Develop a hierarchy of open spaces, supporting a variety of uses and finishes within the LAP lands and in particular develop a sufficient number of local playgrounds/multi-use-games-areas to serve the area, as required by FCC Parks Department.
- Recognition of the archaeological heritage of the area shall be referenced within the open space areas, particularly at the key ecclesiastical discovery adjoining Rathbeale Road, in accordance with the Conservation and Management Plan.

The LAP includes objectives to ensure connectivity and accessibility of the open space network (within the LAP lands and in the context of the regional open space system) by the provision of green corridors incorporating cycle and pedestrian routes.

Implementation of the LAP will result in the fundamental transformation of the landscape of the subject lands, by the replacement of some 111.5 ha agricultural land with residential neighbourhoods and associated facilities. The urban area of Swords would be expanded and a new urban/green belt boundary defined. The LAP promotes the development of a 'strategic landscape belt' around this boundary.

The LAP seeks to retain the existing trees, hedgerows and streams, where feasible, but it is likely that the development will result in some loss or alteration of these features (including hedgerows marking townland boundaries).

The landscape impacts to result from implementation of the LAP are permanent and significant, but since (a) the subject lands are zoned for such development in the County Development Plan, (b) the subject lands are of relatively low amenity value in their present condition, and (c) the LAP will result in achievement of the majority of the environmental objectives for landscape, the impact significance is predominantly positive.

3.2 Movement Strategy and Transportation Infrastructure

The LAP proposes to implement an improved road network and pedestrian/ cycle network through the following specific infrastructure developments;

- New road development - Inner Ward River Valley Crossing;
- New road development - Western Distributor Link Road
- Rathbeale Road improvement
- Enhancement of existing junctions
- Redesign of Glen Ellan Road
- Design of Mooretown Main Street
- Quality bus corridor
- Green network and links

The development of new roads, although beneficial to the residents and users of this area, leads to loss of greenfield space and increased surface water runoff. These impacts are permanent and considered negative as previously greenfield habitat is lost and there is additional surface water runoff containing road contaminants.

Table 10.5: Key Objectives – Transport

- | |
|--|
| <ul style="list-style-type: none"> • Provide for the development of Western Distributor Link Road as a tree lined boulevard with associated pedestrian/cyclist route and accommodation of strategic tree planting. Where feasible incorporate additional open space west of route to aid in creation of a green necklace of open spaces around Swords. • Promote and facilitate improvements to public transport services through development of a QBC and thereby maximise the opportunities for increased use of public transport by the residents of the LAP lands and existing surrounding residential developments. • Provide for a comprehensive, direct and safe network of pedestrian and cycle routes within the plan lands and linking in within the adjoining area. • Adjust the vertical alignment of Rathbeale Road if required to improve sight lines in the area and facilitate safe access for pedestrians/cyclists across the Rathbeale Road. • Redesign the Glen Ellen Road Extension so that its function changes from a distributor road to a main street, which will serve 2 schools, a large park and local centre, in addition to dwellings. |
|--|

The improvements to roads and junctions within and outside of the subject lands facilitating provision of a QBC, the development of a network of green links for cycle and pedestrian movement, and improvement to the streetscape of Glen Ellan Road, will encourage sustainable travel patterns. This will have permanent, positive impacts on the quality of life of future residents of the LAP lands and the surrounding communities, and on the broader environment (by reducing emissions from private vehicles per capita of population).

3.3 Land Use Mix

The loss of agricultural land through urban development will have a permanent negative impact on the agricultural production capacity of the subject lands and of Co. Fingal. The significance of the impact is minimal however considering the limited size of the LAP in the context of a highly productive county, and the relatively limited land capability of a significant proportion of the LAP lands (northern and eastern portions of Oldtown). The impact can also be considered positive given that development in accordance with the LAP will contribute to the achievement of the zoning objective (RS1 – Residential) for the lands in the County Development Plan 2005-2011..

Table 10.6: Key Objectives – Sustainable Neighbourhoods

- Promote well-designed quality residential development with mix of housing types, sizes and tenures and with a range of community, commercial and amenity facilities, within walking distance.
- Promote principles of sustainable neighbourhood design in new housing areas.
- Provide for a high quality sustainable urban environment where priority is given to legibility and permeability for cyclists and pedestrians, and with easy access to public transport.

The LAP identifies eight distinct urban character areas, and specifies (a) land use mix, (b) housing density, (c) use and quality of open space, to be achieved in the development of each. It also identifies the landscape sensitivities (e.g. hedgerows/treelines, flood risk, views) to be considered and accommodated in each area, as well as the appropriate response of urban form (e.g. street frontage, overlooking, etc.) to these sensitivities.

Table 10.7: Key Objectives – Housing

- Promote the provision of a wide choice of dwelling types, tenure and size to reflect the diversity of needs in the expanding community.
- Promote the integration of social, affordable and private housing throughout the LAP area.
- Promote the provision of family sized residential units.

The subject lands can be classified suburban/greenfield and according to the document 'Guidelines for Planning Authorities on Sustainable Residential Development in Urban Areas' (May 2009) the greatest efficiency in land use for such areas will be achieved by providing net residential densities in the range of 35-50 dwellings per hectare, involving a variety of house types. The LAP will achieve this.

The LAP promotes a mix of unit size and design, with a maximum of 20% one and two bedroom units and a maximum of 80% three bed and larger units. The housing density will vary across the lands in accordance with the character area approach discussed above. The LAP requires that Social and Affordable housing be provided and distributed throughout the LAP lands in accordance with the Housing Strategy contained in the County Development Plan.

Table 10.8: Key Objectives – Retail/Education/Community and other services

- Promote the clustering of retail, service, office, educational, healthcare, recreational and community facilities within/proximate to Local Centres at Oldtown and Mooretown to meet the demands of the future residents of the LAP lands.
- Promote the provision of live/ work units.
- Provide a school campus within Mooretown lands to comprise one primary and one post-primary school.
- Provide 2 primary schools within the Oldtown lands.
- Facilitate development of a primary care centre within Mooretown Local Centre.

The LAP will ensure that sufficient primary and secondary school facilities are provided for the future population of the area, as determined by the Department of Education and Science in consultation with Fingal County Council. It is stated that the facilities (e.g. playing pitches and halls) will be available for public use.

The LAP includes a policy to ensure the provision of childcare facilities in accordance with the Guidelines for Planning Authorities [June 2001]. It prescribes that purpose built facilities should be located in the Local Centre(s), and that the locations of additional childcare facilities shall be identified within each character area at planning application stage. The assessments of sufficiency of childcare provision at that stage should consider the possibility of the LAP lands accommodating a higher than average proportion of young families, as is the case in the nearby Applewood neighbourhood.

The LAP prescribes that one primary health care facility (identified as a Medical Centre) will be required for the projected population of 10,000 in the area, and that this should be located in the Mooretown Local Centre. This requirement has been determined in consultation with the HSE. Although this centre would be in excess of 1km (straight line) from the northern part of Oldtown and therefore beyond walking distance for some, it would be complemented by the existing centre in Applewood to the east of Oldtown. There are further facilities in Swords town centre, which would be accessible by bus.

Regarding the provision of retail and services the LAP specifies that Local Centres shall be provided in both Oldtown and Mooretown, and identifies (a) their location, (b) gross area, (c) ideal/typical range of shops and services, and (d) various design and access objectives. In the terms of the Retail Planning Guidelines for Planning Authorities the proposed retail in the LAP is of a relatively small scale with a relatively small and local catchment.

This is particularly the case when the combined retail and commercial services (non retail) elements comprise 2,000sqm gross and 10,000sqm gross for Oldtown and Mooretown respectively. One can reasonably assume that the 2,000sqm gross referred to for Oldtown will be very predominantly retail and of the order of 1,500sqm net retail floorspace. With regard to Mooretown the 10,000sqm will likely be broken into 7,500sqm gross for retail and 2,500sqm in gross support commercial/professional services. A single supermarket of 2,500sqm gross will likely have a net floor area of 2,000sqm and a catchment of 10 minutes drive time. The remaining smaller units of which there will be a maximum of 15 will have a similar catchment of 10 minutes drive time. These catchments and the lack of large scale comparison retail will ensure that only local needs are met and that there will be no likely negative effect on existing and larger retail centres such as Swords or the Pavilion Shopping Centre. The location of the Local Centres in the context of the LAP lands should encourage access by pedestrians and cyclists in addition to motor traffic.

Adherence to these objectives and specifications will result in the establishment of well serviced, sustainable neighbourhoods.

3.4 Urban Design Framework and Masterplans

The layout of the Mooretown portion of the site as illustrated on the Draft LAP Strategy Map is derived from the existing field pattern. This is good practice in terms of urban design. For the Oldtown proportion of the site the main arranging element of the layout is the Swords Western Distributor Link Road (SWDLR), which is aligned to follow the trunk watermain which traverses the subject lands from south west to north east. This alignment does not reflect the natural (particularly slope and field pattern) or built characteristics (neighbouring estates, existing roads) of the environment. While the trunk watermain must be considered a constraint due to its strategic importance, the use of its alignment as the main determinant of the urban form for Oldtown would not be best practice in urban design terms.

The LAP includes an objective requiring prospective developers to prepare master plans for the subject lands (either separately for Oldtown and Mooretown, or combined), in accordance with the policy objectives of the LAP in advance of any proposals/applications for development. The master plan/s will be required to set out (a) the layout of development, i.e. street and block structure (urban grain), (b) vehicular, cycle and pedestrian movement strategy, (c) the location, orientation, form and scale of buildings, (d) open space strategy and (e) the relationship of built development to open spaces. The master plan/s will be required by the LAP to be prepared in conjunction with the preparation of detailed design of the SWDLR. This constitutes an opportunity to apply urban design principles in the design of the neighbourhood and thereby minimise the potential negative impact of the main road's alignment with the water main.

The LAP identifies 11 key urban design principles, which if applied in the preparation of the master plan/s as required, will result in the creation of sustainable and attractive new neighbourhoods. Specifically, the LAP requires that the master plan/s for Oldtown and Mooretown be influenced by:

- Archaeological discoveries.
- Existing water courses and trees/hedgerows, specifically in the development of green corridors.
- Proximity to Broadmeadow Linear Park and Swords Regional Park.
- Protection of existing residential amenity of houses within and to the east and south of the subject lands.

These objectives will result in minimal negative impact arising from the loss of existing landscape features (despite the overall change of landscape character), and positive impact on the new neighbourhoods by generating distinct local character.

3.5 Water Services Infrastructure

The water services section of the LAP provides for significant protection of the Broadmeadow and on-site water courses. Culverting of watercourses will not be permitted, an existing culvert will be returned to the natural water course where feasible and riparian zones of 10 m are required for each watercourse. The SUDS strategy developed for the LAP is required to be employed in all site development with specific reference that water quality measures proposed by developers must be adequately demonstrated to Fingal County Council.

This section is also strengthened by the provision of Water Services key objectives shown in Table 10.9. These objectives also include the support of the WFD management plan and re-emphasise the protection of the Broadmeadow River.

Table 10.9: Water Services Objectives

- Ensure the implementation of SuDs Strategy in the detailed design of the plan lands.
- Ensure surface water attenuation ponds and dry detention basins are well design and incorporated as a design feature within open space areas.
- Support the Water Framework Directive in implementing the Eastern River Basin District Management Plan 2009-2015 , the Program of Measures for the Broadmeadow River and the Fingal Ground Water Protection Scheme.
- Prevent deterioration in status of Broadmeadow River.
- Ensure incorporation of water conservation measures into the design of proposed developments.
- The Eastern Region Fisheries Board shall be contacted before planning works that may have an impact on surface waters. Private developers will be required to provide evidence that such consultation has taken place in accordance with per Planning and Development Regulations , 2001, Section 28
- The document "Requirements for the Protection of Fisheries Habitat during Construction and Development Works at River Sites" shall be consulted by any stakeholder when planning to undertake river or riparian works
- Riparian zones of 10 m (minimum) are required for streams on site maintaining the existing riparian vegetation.
- No development shall be permitted in the 1 in 100 year and 1 in 1000 year flood probability, as defined by FEMFRAMS.

3.6 Public Utilities

The provision of the utilities shown in Table 10.10 will ensure that the new residents will be able to avail of necessary telecommunications utilities provided in the other areas of Fingal. By ensuring that such utilities are placed underground will mitigate a negative impact on the landscape.

Table 10.10: Utilities Objectives

- The ESB cables and pylons traversing the Mooretown (110 KV) and Oldtown (38 KV) lands shall be placed underground or re-routed to facilitate development of these lands. All future services shall be placed under ground.
- It is an objective of this LAP that all telecommunications infrastructure serving the plan lands shall be under grounded as part of the development of the Local Area Plan lands.
- It is an objective of this LAP to facilitate the roll-out of broadband service within the plan land

3.7 Building Design, Energy Efficiency and Sustainability

Section 3.7 of the LAP includes provision for energy efficiency and conservation in new developments on the LAP lands. Developers must indicate how they propose to conserve energy, use alternative energy sources and where developments are greater than 30 units or are 1,000 m² or more, use renewable energy sources. These objectives are positive in reducing the carbon footprint of the LAP area and reducing harmful air emissions.

Table 10.11: Building Design, Energy Efficiency and Sustainability Objectives

- Ensuring that development proposals demonstrate reduced energy consumption in their design and construction.
- Ensuring that development proposals incorporate where possible alternate energy technologies.
- Ensuring that all proposals above 30 residential units and or buildings greater than 1000m² provide details of the requirements for alternative renewable energy systems, to be submitted at the pre planning stage for consideration.
- Developers shall give consideration to the provision of higher levels of noise insulation than in the current Building Regulations or any updated standards.

3.8 Construction Waste Management

As the LAP lands are undeveloped lands, the initial development stages will be predominately construction. There are potential negative environmental impacts from construction phases including contamination of soils and surface water run-off and nuisance to the existing residential area from dust and noise. These potential negative impacts have been mitigated by inclusion of specific objectives for construction requiring specific waste handling procedures to ensure that lands are not used for disposal of construction waste and that licensed waste handlers are used. In addition, consideration of the existing residential users of the area is employed by requiring developers to propose measures to negate nuisance.

Table 10.12: Construction Waste Management Objectives

- Developer(s) shall be required to submit a construction programme setting out a planned programme for the management/recovery/disposal of construction/demolition waste material generated at the site during the excavation and construction phases of development, in accordance with the relevant national waste management legislation, at the planning application stage.
- It is an objective of this LAP that developers shall ensure that all waste is removed from the plan lands by approved waste disposal contractors to approved waste disposal facilities.
- In addition, it is an objective of this plan that developers shall take adequate measures to minimise the impacts of traffic, noise and dust during construction phases.

Table 10.13: Strategic Environmental Assessment of Policies, Plans and Proposals

LEGEND:

- ++ Long term/ permanent positive impact
- + Short term positive impact
- Long term/ permanent negative impact
- Short term negative impact
- ? May conflict with environmental objectives

Objective	B1	W1	AC1	N1	S1	P1	P2	P3	P4	CH1	MA1	MA2	L1	Comment
Key Objectives: Archaeological Heritage														
Seek the protection and preservation in situ of these early medieval and medieval monuments including the ecclesiastical site with burials, associated secular activity and field systems, holy well, mill site, ringfort and medieval secular farmstead.					++	++				++	++		++	
Seek the preservation of important views and prospects to and from the ecclesiastical site at Oldtown so as to preserve the setting of the monument and to increase the appreciation and character of the archaeological remains. Based on previous archaeological investigations, the Department have stipulated that a buffer area is to be established between any new development and the monument in order to ensure the preservation and enhancement of the feature within an archaeological park and amenity area.										++			++	
Require any earthmoving proposals for works within the LAP area to be reviewed by a suitably qualified archaeologist and that, where necessary, work is preceded by an appropriate assessment, designed to realise the full archaeological potential of the development area;	++	++								++				
Require the involvement of qualified and experienced archaeologists and landscape professionals in the detailed design, layout and management of the archaeological park and archaeological risk zones that are to be incorporated into the proposed development plans as open space areas;									++	++			++	

Objective	B1	W1	AC1	N1	S1	P1	P2	P3	P4	CH1	MA1	MA2	L1	Comment
Provide for buffer zones around the known extent of the below-ground archaeology. The idea being that the exclusion zone is surrounded by a buffer zone that can tolerate more significant interventions such as planting, seating and playgrounds. This enables the outer fringes of the archaeological sensitive zone to be incorporated in a seamless manner within development proposals;					++	++					++		++	
Favour the minimal intervention landscape strategies to be employed at the archaeological park and other open space areas for the protection of the sensitive below-ground remains and avoidance of unnecessary disturbance;										++			++	
Require good quality, context-sensitive design for development proposals surrounding the open space areas and archaeological park so as not to detract from the character or setting of these sites by reason of the location, scale, bulk or detailing;										++			++	
Encourage the enhancement of the archaeological remains by signage, en route sculptures and pedestrian linkages to and from the below-ground sites;									++	++				
Require that appropriate programmes of regular maintenance are put in place and that all workers such as on-site landscape contractors or Fingal County Council Parks Department are aware of the importance of the below-ground remains.										++				
Key Objectives: Biodiversity														
Protect and enhance the biodiversity of the plan lands through the incorporation of existing trees and hedgerows within green corridors and development of strategic planting along the western boundary.	++			++		++							++	
Protect and manage the existing watercourses within the plan lands and provide riparian corridors alongside these watercourses.	++	++				++							++	
Promote and implement sustainable urban drainage solutions within the LAP lands and protect the Broadmeadow River watercourse.		++				++							++	
Undertake a detailed tree/hedgerow survey and biodiversity study as part of Masterplan(s) for the LAP.	++												++	

Objective	B1	W1	AC1	N1	S1	P1	P2	P3	P4	CH1	MA1	MA2	L1	Comment
Key Objectives: Public Open Space and Recreational Facilities														
·Develop the lands zoned Open Space within the Swords Regional Park to the west of Oldtown for active class 1 recreational needs associated with LAP lands.					++	++			++	++			++	
·Extend the Broadmeadow River Valley Park into the proposed Regional Park and provide safe and good quality access to and permeability between the Parks and the adjoining lands.	++				++	++			++	++			++	
Develop strategic planting, physical connections, and visual linkages between the Green Road Corridor of the Western Distributor Road and the Ward River Valley Park and Broadmeadow Linear Park, linking in with an internal network/green corridor of open spaces within the LAP lands.	++					++			++	++			++	
Develop a network of green corridors within the LAP lands and ensure a high level of connectivity and accessibility through the incorporation of key green cycle and pedestrian routes.	++					++			++	++			++	
Develop a hierarchy of open spaces, supporting a variety of uses and finishes within the LAP lands and in particular develop sufficient number of playgrounds to serve dwellings.						++			++	++			++	
Recognition of the archaeological heritage of the area shall be referenced within the open space areas, particularly at the key ecclesiastical discovery adjoining Rathbeale Road, in accordance with the Conservation Plan.						++			++	++	++			
Key Objectives: Transport														
Provide for the development of Western Distributor Link Road with associated pedestrian/cyclist route and accommodation of strategic tree planting.	--	--			--	--	++						?	The provision of new roads while beneficial to the local population has the potential to negatively impact biodiversity through loss of greenfield habitat, negatively impact water quality with construction and operation runoff,

Objective	B1	W1	AC1	N1	S1	P1	P2	P3	P4	CH1	MA1	MA2	L1	Comment
														negatively impact noise levels of which traffic noise is the dominant noise source in Fingal and negatively impact on loss of soils.
Promote and facilitate improvements to public transport services through development of a QBC and thereby maximise the opportunities for increased use of public transport by the residents of the LAP lands and existing surrounding residential developments.				++		++								
Provide for a comprehensive, direct and safe network of pedestrian and cycle routes within the plan lands and linking in within the adjoining area.				++		++								
Adjust the vertical alignment of Rathbeale Road along the frontage of the LAP lands to improve sight lines in the area and facilitate safe access for pedestrians/cyclists across the Rathbeale Road.				?		++								There is a uncertain impact on noise by realignment/ redesign of roads as there is the potential to increase traffic capacity (thereby increasing traffic noise) and by improving alignment, there may be higher noise levels at roadside properties.
Redesign the Glen Ellen Road Extension so that its function changes from a distributor road to a main street, which will serve 2 schools, a large park and local centre, in addition to dwellings.				?		++								
Key Objectives: Sustainable Neighbourhoods														
Promote well-designed quality residential development with mix of housing types, sizes and tenures and with a range of community, commercial and amenity facilities, within walking distance.	--	--			-	++	++		++	++				The provision of new residential properties while beneficial to the local population has the potential to negatively impact biodiversity through loss of greenfield habitat, negatively impact water quality with construction and operation runoff, temporarily negatively impact noise levels during construction and negatively impact on loss of soils.

Objective	B1	W1	AC1	N1	S1	P1	P2	P3	P4	CH1	MA1	MA2	L1	Comment
Promote principles of sustainable neighbourhood design in new housing areas.						++							++	
Provide for a high quality sustainable urban environment where priority is given to legibility and permeability for cyclists and pedestrians, and with easy access to public transport						++							++	
Key Objectives: Housing														
Promote the provision of a wide choice of dwelling types, tenure and size to reflect the diversity of needs in the expanding community.	--	--			--	++	++							The provision of new residential properties while beneficial to the local population has the potential to negatively impact biodiversity through loss of greenfield habitat, negatively impact water quality with construction and operation runoff, temporarily negatively impact noise levels during construction and negatively impact on loss of soils.
Promote the integration of social, affordable and private housing throughout the LAP area.						++	++							
Promote the provision of family sized residential units.	--	--			--	++	++							
Key Objectives: Retail/Education/Community and other services														
Promote the clustering of retail, service, office, educational, healthcare, recreational and community facilities within/proximate to Local Centres at Oldtown and Mooretown to meet the demands of the future residents of the LAP lands.						++			++	++				
Promote the provision of live/ work units.						++		++	++					
Provide a school campus within Mooretown lands to comprise one primary and one post-primary school.	--	--			--	++			++	++				Construction of new schools while providing permanent positive impacts to the local community will incur loss of greenfield sites and the potential for greater surface water run-off (possibly contaminated if improperly managed).
Provide 2 primary schools within the Oldtown lands.	--	--			--	++			++	++				
Facilitate development of a primary care centre within Mooretown Local Centre.	--	--			--	++			++	++				

Objective	B1	W1	AC1	N1	S1	P1	P2	P3	P4	CH1	MA1	MA2	L1	Comment
Key Objectives: Water Services														
Ensure the implementation of SuDs Strategy in the detailed design of the plan lands.	++	++												
Ensure surface water attenuation ponds and dry detention basins are well design and incorporated as a design feature within open space areas.	++	++											++	
Support the Water Framework Directive in implementing the Eastern River Basin District Management Plan and the Program of Measures for the Broadmeadow River.	++	++												Adherence to the WFD will ensure that the Broadmeadow River is restored to good status which will have a permanent positive impact on downstream ecological sites.
Prevent deterioration in status of Broadmeadow River.	++	++												
Ensure incorporation of water conservation measures into the design of proposed developments.		++											++	
It is mandatory that The Eastern Region Fisheries Board be contacted before planning works that may have an impact on surface waters. Private developers will be required to provide evidence that such consultation has taken place in accordance with per Planning and Development Regulations , 2001, Section 28	++	++												
The document "Requirements for the Protection of Fisheries Habitat during Construction and Development Works at River Sites" (http://www.fishingireland.net) should be consulted by any stakeholder when planning to undertake river or riparian works	++	++												
Riparian zones of 10 m (minimum) are required for streams on site maintaining the existing riparian vegetation.	++	++			++								++	
Objectives: Utilities														
The ESB cables and pylons traversing the Mooretown (110 KV) and Oldtown (38 KV) lands shall be placed underground or re-routed to facilitate development of these lands. All future services shall be placed under ground.													++	

Objective	B1	W1	AC1	N1	S1	P1	P2	P3	P4	CH1	MA1	MA2	L1	Comment
It is an objective of this LAP that all telecommunications infrastructure serving the plan lands shall be under grounded as part of the development of the Local Area Plan lands.													++	
It is an objective of this LAP to facilitate the roll-out of broadband service within the plan lands						++								
Objectives: Building Design, Energy Efficiency and Sustainability														
Ensuring that development proposals demonstrate reduced energy consumption in their design and construction.			++											
Ensuring that development proposals incorporate where possible alternate energy technologies.			++										?	It is an uncertain impact as to how utilising renewable energy sources will impact on the landscape. This will remain uncertain until the developers provide proposals to comply with these objectives.
Ensuring that all proposals above 30 residential units and or buildings greater than 1000m ² provide details of the requirements for alternative renewable energy systems, to be submitted at pre planning stage for consideration.			++										?	
Objectives: Construction Waste Management														
Developer(s) shall be required to submit a construction programme setting out a planned programme for the management/recovery/disposal of construction/demolition waste material generated at the site during the excavation and construction phases of development, in accordance with the relevant national waste management legislation, at planning application stage.		++			++								++	
It is an objective of this LAP that Developers shall ensure that all waste is removed from the plan lands by approved waste disposal contractors to approved waste disposal facilities.		++			++								++	
In addition, it is an objective of this plan that developers shall take adequate measures to minimise the impacts of traffic, noise and dust during construction phases.				++		+							++	

10.3 Assessment of the Managers Report on Amendments following the Second Consultation Period

Twenty seven submissions were received and considered by Fingal County Council following the first consultation phase. A Managers report was prepared detailing where amendments were proposed to the draft LAP from the submissions received. The report also detailed responses to the submissions where amendments were not proposed.

10.3.1 Managers Report

The Managers report segregated the submissions into ten areas of amendments on which SEA was conducted.

Prematurity of development

There were no recommendations to amend the draft LAP based on submissions relating to the LAP requirement.

Transportation infrastructure

The amendments allowed for the further development of the Swords Western Distributor Road (which itself is subject to statutory processes) and provision of additional bus priority and cycle facilities. The SEA report of the draft LAP considered and assessed the provision of a WDR. The proposed amended text clarifies the current process of road development but does not change the provision of this road and the original assessment thereof.

The additional cycle facilities proposed are an additional positive impact to the quality of life for future residents and users of the lands and are therefore supported by the SEA objectives.

Water services

A submission requested that a restriction of development in the 1:1,000 flood plains be reconsidered. This was also noted by the Environmental Protection Agency in their submission where they recommended that restriction of development in the 1:100 and 1:1,000 flood plains be specifically stated in the LAP. The Manager's Report considered both sides of this issue and an amendment concurring with the EPA's submission was proposed that no development be permitted in either the 1 in 100 year and 1 in 1,000 year flood areas as defined by FEM FRAMS.

This amendment was fully supported as it is in line with the EPA's submission and in line with best practice of flood plain management.

School provision

The Manager's report outlined that submissions were received in relation to the provision of additional schools based on a reassessment of school needs by the Department of Education and Science and the provision of development briefs for schools. A recommendation was therefore made for a second possible location for a 16 class Primary School, adjoining the existing school campus.

The three proposed amendments (with three additional clarifications) all relate to the provision of lands for a second Primary School in the LAP lands, adjoining the existing school campus site in the Mooretown lands.

Another amendment is proposed to provide a development brief for the school campus site.

Both related amendments are positive impacts to the development of the Oldtown Mooretown lands as these will ensure the provision of local school places with inherent sustainable transport design.

Open space and community facilities

The submissions on open space and community facilities related to the provision of open spaces, particularly playing fields due to an acknowledged shortage in North West Swords, protection of hedgerows as boundaries and the land provided for archaeological parks.

There were no recommendations from these submissions as the Manager's report considers that the phasing plan for the LAP will ensure the provision of open spaces in line with residential areas. The requirement for maintenance of trees and hedgerows was already included in the LAP and does not require further amendment. Also, there are no changes proposed to the archaeological parks as this space has limitations to use as play areas due to the sensitivity of the archaeological features.

As there are no recommendations for amendments to these objectives and policies, the assessment undertaken for the draft LAP of these policies and objectives remains.

Height and density

The submissions on height and density of proposed residential development related to the possibility of two storey developments adjoining existing housing. The draft LAP already considers this and has stated that *'New development shall be max two storeys where it backs onto existing housing, and shall have consideration of appropriate separation distances, overlooking and overshadowing'*.

Additional submissions were made on ownership boundaries and design detail. However, these issues were considered by the Manager to be addressed sufficiently in the draft Plan and require no amendment.

As there are no recommendations for amendments to these objectives and policies, the assessment undertaken for the draft LAP of these policies and objectives remains.

Local centres and retail development

Submissions were received on the limitation of the supermarket provided as part of the draft LAP and the location of the Mooretown Local Centre. These issues are considered in the Managers report and the size of the supermarket has been upgraded to 2,500 m² net permissible under the Retail Planning Guidelines. This would not impact negatively on SEA objectives.

There are no further amendments proposed to the draft LAP under local centres and retail development.

Phasing

The landowners of Oldtown and Mooretown made submissions on the phasing and requested that the phasing programme be altered to create more flexibility. This was acceded in the Manager's report where an amendment was made to an objective on phasing.

The proposed amendment allows the Council to change the sequence of the phasing once the necessary physical and social infrastructure is in place. From an environmental perspective, all the policies and objectives relating to the protection of environmental aspects such as water quality and air quality still remain as binding and therefore a phasing change throughout the lifetime of the LAP will not be a negative impact as compared with the proposed phasing when the LAP is adopted.

Environmental issues

The environmental amendments proposed under Environmental Issues in the Manager's report arose from the EPA submission on the draft LAP. These amendments were recommended to Fingal County Council as part of an overall assessment of the EPA submission prepared by FTC and CSR and as such are in line with the SEA and environmental legislation/ best practice.

Miscellaneous

Submissions made by the landowners also contained miscellaneous comments relating to the visions statement, LAP map, masterplans and overall distribution of lands. There were no amendments proposed as part of these.

10.3.2 Councillors Motions

In addition, fourteen motions were made by the Councillors on the draft LAP and a Manager's response was prepared detailing where the Councillors motions were considered and where amendments were recommended.

Motion 1

"That the Oldtown/Mooretown Local Area Plan ensures that the majority of the housing to be provided is "family type" housing."

The Managers response considered that the draft LAP provides a majority of family type housing therefore there is no proposed amendment to the draft LAP based on this motion.

Motion 2

"That the Oldtown/Mooretown Local Area Plan provides that at least 25% of the residential units to be provided are 4 bedroom (or greater) houses, of which at least one third must be detached."

The Manager's response considered this in terms of how this requirement could be considered at this early stage as the numbers will be more specifically determined at the Masterplan design stage. The following recommendation was made to provide for the Councillors motion.

Amendment

Amend the following text under section 3.3.3, pg 49:

- Minimum 80% of the total number of units shall comprise 3 bed or more residential units, with a minimum of 30% of this comprising 4 bed **or more** residential units. **The Urban Design/Masterplan(s) shall ensure that an appropriate mix of detached dwellings, as well as semi-detached and terraced are incorporated within the design of housing layouts. The Urban Design/Masterplan(s) shall endeavour to provide for a minimum proportion of 5% 4 bed or more detached dwellings within the total number of units.**

This does not negatively impact on the SEA objectives as the other draft LAP objectives relating to construction and environmental design criteria will remain and be incorporated in the housing types.

Motion 3

"That all units must be built to the highest standards with regard to build quality and sound proofing / insulation."

The Manager's response considered this by proposing additional text in the draft LAP as follows,

Amendment

The following text shall be added to section 3.7 of Oldtown-Mooretown LAP:

Developers shall give consideration to the provision of higher levels of noise insulation than in the current Building Regulation or any updated standards.

The SEA report released with the draft LAP identified noise mapping completed as part of the report Dublin Agglomeration Action Plan relating to the Assessment and Management of Environmental Noise" which illustrated predicted noise levels for the Oldtown Mooretown lands. The noise modelling did not identify "undesirable" noise levels (> 55 dB(A) for night-time and >70 dB(A) for daytime).

If undesirable noise levels had been predicted, requirements for management of noise at source would be recommended (in addition to the consideration of reduced noise surfaces at road design stage, Section 3.2) and sound proofing would not be considered sufficient. However, since noise levels at residential areas are less than the undesirable levels; this amendment provides additional positive benefit to future residents.

Motion 4

"Amend plan to ensure that no development exceeds 4 storeys."

The Manager's Response incorporates this proposal by revising the objective relating to punctuation buildings from five storeys to four storeys.

Amendment

Insert following text in bold under section 3.3.2, at end of paragraph at top of page 49:

'The exact location of such punctuation building(s), which shall be restricted in height to 4 storey with penthouse setback, will be examined in more detail at Masterplan stage. Punctuation building(s) will be provided as the exception and not the rule. Punctuation building(s) will be allowed only where it can be demonstrated that they are necessary as a visual landmark in the area and will only be encouraged at significant junctions/corner sites/gateways/nodal points to the development'.

This amended objective has been strengthened by ensuring that these buildings will require significant justification and landscape assessment at the pre-planning stage. There is no additional SEA impact as this amends the previous objective in the draft LAP to a lower height and with greater landscape protection.

Motion 5

"That the Oldtown/Mooretown Local Area Plan ensures that the active Class 1 Open Space for Oldtown (including dressing rooms) is available for use before the commencement of residential development in Phase 2."

The Managers Response addresses this by specifically stating that Class 1 lands will be made available prior to development phases.

Amendment

The following text, under section 4.1, Phase 1, will be amended as follows:

- Active Class 1 Open Space, ***including associated dressing rooms***, generated by development of all of Oldtown lands shall be provided in Swords Regional Park prior to the completion of 350 residential units in phase 1. ***These facilities shall be made available for use prior to commencement of the next phase of development.***

This is a positive impact as it ensures that the lands are available for users and will not be dependent on the provision of residential development in advance.

Motion 6

"No development shall commence in respect of Phase 2 until the active Class 1 open space associated with Phase 1 is made available for use. "

This motion was responded to as per Motion 5.

Motion 7

"That given the extent of residential development proposed and the significant road/traffic improvements required to facilitate this development, that the Oldtown/Mooretown LAP be formally reviewed should the assumptions re traffic management not be achieved."

This motion was responded to by adding text to the Phasing Section of the draft LAP.

Amendment

The following text will be added as a final paragraph to section 4.1, Phasing Programme, and included before heading 'Phase 1':

A mid-term review of the LAP shall be undertaken by the Planning Authority and a report prepared and submitted to the Members before the commencement of phase 3. The review shall in particular focus on infrastructural requirements and phasing. The review will be undertaken to ensure assumptions applied to the traffic modelling and analysis undertaken as part of the Transport Network Study by Roughan O'Donovan are valid and remain appropriate. Any amendments arising as a result of the review shall be incorporated as appropriate into the phasing programme or where material shall require a review of the LAP.

This provides for a mid-term review of the LAP to ensure that traffic modelling assumptions are still valid and appropriate for the remaining phases of the development. This is considered a positive action and will coincide with the mid-plan SEA review detailed in Section 13.5 of the SEA report where the environmental impacts midway through the life of the LAP can be assessed.

Motion 8

"Given the nature and scale of proposed development of Oldtown-Mooretown LAP, and reflecting the current economic uncertainties, a mid-term review of the LAP, in respect of the timely delivery of critical social and physical infrastructure, will be undertaken prior to development of Phase 3. "

This motion was responded to as per Motion 7 and as per the SEA response to Motion 7, this will coincide with the SEA mid-LAP review.

Motion 9

"To amend the phasing arrangement proposed in the draft LAP to provide for the earlier delivery of the Swords Western Distributor Link Road up to and including junction improvements on to the Brackenstown Road."

This motion was responded to by providing the following recommendation.

Amendment

It is recommended that the phasing programme be amended in accordance with the amended phasing diagram to facilitate the early delivery of the Swords Western Distributor Road.

The diagram provides a snapshot of the intended areas to be developed within each phase and highlights the key changes/additions to the infrastructural requirements to be delivered in tandem with the phased development.

This is a positive change as the infrastructure necessary for the sustainable development of the area will be guaranteed at an earlier stage and residential/ commercial development will be assured of the required infrastructure.

Motion 10

Insert phasing objective - "No development can commence until road junction improvements, and the Swords Western Distributor Road are provided"

This motion was responded to as per Motion 9.

Motion 11

"Retail provision within the Local Centre at Oldtown, which takes place as part of phase 1 shall be designed and developed to serve the local area only and ensure that there is no material adverse impact on the commercial viability of existing local centres in the area. "

This motion was responded to by providing the following recommendation,

Amendment

Insert new paragraph to section 3.3.7, under heading 'Retail and Commercial', pg 52:

A Retail Impact Assessment shall be undertaken in relation to the Oldtown Local Centre and the Mooretown Local Centre to ensure the scale of retail proposed is appropriate and does not have a material adverse impact on the vitality and viability of existing neighbourhood centres/local centres within the area and the existing town centre.

This recommendation will have no impact on SEA objectives as the local needs of the Oldtown Mooretown areas are still being met through the provision of local commercial centres, providing access to retail areas within walking distances, reducing reliance on vehicles.

Motion 12

A comprehensive Retail Impact Assessment for the retail provision of Mooretown Local Centre should ensure that the nature, scale and timing of delivery of the retail units are appropriate for a local-district centre serving the western side of Swords.

This motion is responded to as per motion 11.

Motion 13

"Insert phasing objective- "No development can commence until the Metro to Swords is under construction""

There was no recommendation made on this motion therefore there is no change.

Motion 14

"That it is generally accepted that the lands covered by this LAP are intended to represent the ultimate outer border of the town of Swords. That it is important to maintain a final urban / rural divide and that the lands cover by this LAP are accepted as such. "

There was no recommendation made on this motion therefore there is no change.

10.4 Assessment of Material Amendments to the Draft Plan

The recommendations in the Manager's Report and Manager's Response to Motions were considered by the Elected Members on the 9 July 2010.

The proposed alterations to the draft LAP are presented in "Material Alterations to Draft Oldtown Mooretown LAP" for release from the 27 July to the 24 August.

Table 10.14: Assessment of Material Amendments to the LAP

Proposed Amendment	SEA Impact
Changes to Executive Summary, 2.8 Schools. 3.3.8 Education and Community Infrastructure and Phasing Programme Provision of an additional 16 class primary school in Mooretown ¹	Positive Impact on population objectives
3.3.8c Education and Community Infrastructure and Phasing Programme Provision of a development brief for the school campus site including access points, boundary treatments, issue of overlooking of public realm and analysis of pedestrian/vehicular movement. ¹	Positive Impact on population objectives
4.1 Phasing Programme Inclusion of a mid-term review of the LAP before commencement of Phase 3 to assess infrastructural requirements and phasing in particular.	Positive Impact on material assets objectives
4.1 Phasing Programme and Phase 2 Inclusion of a mid-term review of school provision in Mooretown following phase 2.	Positive Impact on population and material assets objectives
4.1 Phasing Programme: Phase 1 Active Class 1 Open Space including associated dressing rooms shall be provided for use prior to commencement of Phase 2.	Positive Impact on population objectives
4.1 Phasing Programme: Phase 1 Well designed landscaped street connecting from WDLR into Swords Regional Park shall be developed.	Positive Impact on population and landscape objectives
4.1 Phasing Programme: Phase 1, 2, 3 and 4 A review of the traffic modelling and analysis undertaken as part of the Transport Network Study by Roughan O'Donovan shall be undertaken by the Planning Authority at the end of each phase of development.	Positive Impact on noise, population and landscape objectives
4.1 Phasing Programme: Phase 2 This phase relates to a southern portion of Mooretown lands which are identified for medium density housing, school campus and local centre. Phase 2 represents approximately 30% of the total development.	No impacts
4.1 Phasing Programme: Phase 2 Residential Development: approx 1000 units.	No impacts
4.1 Phasing Programme: Phase 2 Active Class 1 Open Space generated by development of all of Mooretown lands shall be developed (laid out and landscaped in accordance with Landscape and Recreational Strategy for Swords Regional Park) in Swords Regional Park and ownership transferred to Fingal County Council.	Positive Impact on population and landscape objectives
4.1 Phasing Programme: Phase 2 The Local Centre in Mooretown shall be commenced as part of this phase.	Positive Impact on population objectives
4.1 Phasing Programme: Phase 2 Transportation Network Development of Western Distributor Link Road from Rathbeale Road southwards to Brackenstown Road shall be developed, including provisions for cyclists and pedestrians.	Positive Impact on population and material assets objectives
4.1 Phasing Programme: Phase 2 Transportation Network Upgrade of Brackenstown Road from Swords Manor to the R108 Naul Road junction to urban single carriageway road standard with footpaths and cycle tracks.	Positive Impact on population and material assets objectives
4.1 Phasing Programme: Phase 2 Transportation Network Provision of a pedestrian and cycle link along the eastern	Positive Impact on population and material assets objectives

Proposed Amendment	SEA Impact
side of the R108 Naul Road from the junction with Brackenstown Road southward to the Knocksedan housing estate.	
4.1 Phasing Programme: Phase 2 Transportation Network Upgrade 3 roundabouts on Glen Ellan Road to cyclist friendly roundabouts.	Positive Impact on population and material assets objectives
4.1 Phasing Programme: Phase 2 Transportation Network Major upgrade and realignment of the junction of Glen Ellan Road with Balheary Road.	Positive Impact on material assets objectives
4.1 Phasing Programme: Phase 3 This phase relates to the northeastern portion of Oldtown lands (north of the Local Centre) and the southeastern portion of Mooretown lands, which comprise medium density residential development and archaeological open space network. Phase 3 represents approximately 20% of the proposed development.	No impacts
4.1 Phasing Programme: Phase 3 Residential Development: approx 600 units.	No impacts
4.1 Phasing Programme: Phase 3 The Local Centre in Mooretown shall be completed as part of this phase.	Positive Impact on population objectives
4.1 Phasing Programme: Phase 3 Undertake remaining road network improvements/connections to complete Western Distributor Link Road south of Brackenstown Road, including it's connection to Forrest Road.	Positive Impact on material assets objectives
4.1 Phasing Programme: Phase 4 This area comprises the northern and north-western portion of Oldtown lands adjoining the Broadmeadow Linear Park and Swords Regional Park. Phase 4 represents approximately 25% of the proposed development.	No impacts
4.1 Phasing Programme: Phase 4 Residential Development: approx 800 units	No impacts

Based on the assessment carried out on the material alterations, there were no alterations which presented a significant negative impact based on the SEA objectives, therefore mitigation measures were not required.

10.5 Assessment Pre-adoption

Four submissions were received from the second consultation period (National Roads Authority, EPA, Department of Education and Skills and Department of Communications, Energy and Natural Resources. Only the EPA and Department of Education and Skills made comment on the material changes with no comment from the other two bodies.

No further amendments were made to the draft LAP following the second consultation period and the draft LAP and the material alterations were adopted by Fingal County Council on the 11 October 2010.

11 STRATEGIC FLOOD RISK ASSESSMENT

11.1 Introduction

This flood risk assessment was prepared for the LAP lands at Oldtown and Mooretown taking cognizance of the guidelines produced by the Department of Environment, Heritage and Local Government (DoEHLG) - *The Planning System and Flood Risk Management Guidelines for Planning Authorities, November 2009*.

11.1.1 Scope

The flood risk assessment was prepared by assessing the impact of the development lands together with the available results of the Fingal East Meath Flood Risk Assessment and Management Study (FEMFRAM) currently being undertaken for Fingal County Council (FCC) along with project partners Meath County Council and the Office of Public Works (OPW). The site is situated in the catchment of the Broadmeadow River in County Dublin. The history of flooding in the existing environment was examined and any potential increase in the risk of flooding due to the proposed development estimated.

11.1.2 National, Regional and Local Spatial Plans

The relevant Development Plan to the area is the Fingal Development Plan 2005 – 2011 which is currently under review to produce the Fingal Development Plan 2011 – 2017.

Fingal County Council produced a Strategic Vision Document for Swords 'Your Swords An Emerging City Strategic Vision 2035' which incorporates the Oldtown-Mooretown LAP Development Area.

The Fingal Development Plan 2005 – 2011 had established the following flood protection policies:

Policy UTP25

To restrict new development that would unacceptably increase the risk of flooding of existing developments and lands.

Policy UTP26

To control development in the natural floodplains of all rivers and streams and develop guidelines, where appropriate in co-operation with adjoining local authorities, for permitted development in the different flood risk category areas.

Policy UTP27

To prohibit development on or adjacent to floodplains where such development may have a negative impact on flood control, access for channel maintenance or future flood control works or might contribute to environmental degradation were flooding to occur.

This flood risk assessment is set out to address these policies with regard to flood risk management for the Oldtown and Mooretown areas.

11.1.3 Methodology

The flood risk assessment was prepared in accordance with the guidelines produced by the Department of Environment, Heritage and Local Government (DoEHLG) - *The Planning System and Flood Risk Management Guidelines for Planning Authorities, November 2009*.

The methodology used to prepare the flood risk assessment followed a sequential approach as follows:

- The nature and location of the development was described in terms of the existing hydrological environment.
- All existing historical information on previous events was set out as made available from the Office of Public Works (OPW) flood hazard mapping website.
- The available results from the Fingal-East Meath Flood Risk Assessment & Management Study (FEMFRAMS) were studied. In particular the flood zone map produced for the Broadmeadow River and the pluvial flood maps relevant to this area.

- A predictive assessment of less frequent or more extreme events was developed taking account of the likely impacts of climate change.
- The impact of development in the Oldtown-Mooretown area on flood risk elsewhere was addressed.
- The vulnerability of those that could occupy the development area was considered in terms of their safe access and egress from the area
- Modifications were proposed to mitigate any flood risk, together with examining the consequences of their failure. Evidence of the degree of confidence in the success of these mitigation measures was also declared. Residual risks were identified.

A Source-Pathway-Receptor Model was prepared to identify the probability and magnitude of high river levels as a result of intense or prolonged rainfall and increased run-off due to the proposed development (source), the performance and response of pathways and barriers to pathways (pathways) and the consequences to people, properties and the environment (receptors).

11.2 Existing Hydrological Environment

11.2.1 Location of Oldtown Mooretown LAP Lands

The location of Oldtown Mooretown LAP lands is shown in Figure 1.1.

11.2.2 Existing Drainage

Internal Site Drainage

The site for the proposed development is primarily a Greenfield site, surrounded to the south and east by residential developments. A regional road (R125) and a local road cross the site in a Northwesterly – Southeasterly direction.

There are a number of streams within the site that are draining into the Broadmeadow River north of the site as shown on Figure 7.4.

External Drainage Features

The principal external drainage feature is the Broadmeadow River which is located north of the proposed development area. The Eastern Regional Fisheries Board have indicated that "*the Broadmeadow system supports a small population of Atlantic salmon in its lower reaches and a resident trout population*" in the area subject to the proposed Local Area Plan (LAP). This river flows in a southeasterly direction where it is joined by the Ward River prior to discharging to the Broadmeadow (Malahide) Estuary. The estuary is designated a Special Protection Area (SPA), a candidate Special Area of Conservation (cSAC), a proposed Natural Heritage Area (pNHA) and a Ramsar site.

There is an earthen embankment partially separating the site from the Broadmeadow River. The details of the extent and integrity of the embankment should be examined from the results of the hydrological survey, completed for the FEM FRAM, at the detail design stage for the layout of the zoned areas.

11.2.3 Existing Site Geology and Hydrogeology

The Geological Survey of Ireland (GSI) website provides information on their public online mapping service at www.GSI.ie on aquifer vulnerability and subsoils. This is presented in Figures 11.1 and 11.2.

The aquifer at Oldtown-Mooretown varies from high to low vulnerability as only an interim study was available. The subsoils consist of limestone till, some made ground with alluvium and glacio-fluvial sands and gravels around the watercourses in the area.

There is evidence of alluvium around the stream within the proposed site for development. This would suggest a history of flooding along the banks of the stream. The pluvial map prepared for FEMFRAM is discussed in Section 11.5 and includes further examination of the suitability of proposed development in this area.

11.2.4 Existing Flood Records

The national flood hazard mapping website (www.floodmaps.ie) indicates a history of flooding in the vicinity of the Oldtown-Mooretown area. This is illustrated in the extract from the OPW flood map report in Figure 11.3. The full report is included in Appendix 3.



Figure 11.3: Extract from National Flood Maps Database

'Areas flooded' as defined by the OPW is an area on the map showing the extent of a flood event. For historical floods, it shows the extent at a point in time, however it does not always describe the full extent of that event. The full OPW flood map report for this area does not cite any flooded areas in a 2.5km radius.

The OPW does not report any areas of 'land commission' in a 2.5km radius. Land Commission are areas of land defended to some degree against flooding that were formerly the responsibility of the Land Commission. This indicates that there are no recorded flood defences along the Broadmeadow River in the vicinity of the site. However, as discussed in Section 11.2.2, an earthen berm exists along the south bank of the Broadmeadow River in the vicinity of the Oldtown-Mooretown area. The details of this berm will be available from the FEM-FRAM study.

The area identified as 'Benefiting Lands' as defined by the OPW is a dataset prepared by the Office of Public Works identifying land that might benefit from the implementation of Arterial (Major) Drainage Schemes (under the Arterial Drainage Act 1945) and indicating areas of land subject to flooding or poor drainage. These areas are shown in red hatching on the OPW flood mapping. It is evident from Figure 11.3 that some of the lands at Oldtown are identified as benefiting lands.

There are a number of historic flood events reported adjacent to the Oldtown-Mooretown area. The majority of these events were due to heavy and prolonged rainfall. The most recent reported event occurred in August 2008 during which time Dublin Airport recorded its highest daily rainfall in August and its second highest daily amount in any month since it opened in 1941.

11.2.5 Existing Flood Studies and Surveys

Fingal County Council in association with Meath County Council and the Office of Public Works (OPW) has engaged a consultant to undertake the Fingal-East Meath Flood Risk Assessment and Management Study (FEM FRAMS) to address the issue of existing flood risk in the Fingal East Meath area. As part of this study a draft flood extent map was produced of the Broadmeadow River showing the extent of flooding for 100 year and 1000 year return periods. A pluvial map was also prepared for some high priority watercourses (HPW) in this area. Copies of the fluvial and pluvial flood extent maps are shown in Appendix 4. These maps were examined in the preparation of this flood risk assessment.

11.3 Predictive Assessment

The lands at Oldtown and Mooretown drain to two tributaries of the Broadmeadow River. The run-off from the undeveloped area was compared to the expected run-off post-development. The SUDS strategy document prepared by Moylan Consulting Engineers was examined to provide the estimates of the impermeability of the zoned areas.

Table 11.1: Oldtown Predictive Assessment

Description of Area	Rainfall Intensity for 1 in 100 yr, 30 minute duration storm*	Undeveloped Area	Factored Area undeveloped x 0.2	Factored Area Post-development x 0.43	1 in 100 year flow** + 20% Climate Change allowance
	mm/hr	ha	ha	ha	m ³ /s
Oldtown-Undeveloped	54	50.40	10.08		1.816
Oldtown Post-Development	54	50.40		21.67	3.904
Increase in flows					2.088

*Ref. Met Eireann

** $Q (l/s) = 2.78 \times I \times A$, where I is the rainfall intensity (mm/hr) and A is the factored area (ha)

Table 11.2: Mooretown Predictive Assessment

Description of Area	Rainfall Intensity for 1 in 100 yr, 30 minute duration storm*	Undeveloped Area	Factored Area undeveloped x 0.2	Factored Area Post-development x 0.37	1 in 100 year flow** + 20% Climate Change allowance
	mm/hr	ha	ha	ha	m ³ /s
Mooretown-Undeveloped	54	60.68	12.14		2.187
Mooretown Post-Development	54	60.68		22.45	4.044
Increase in flows					1.937

*Reference: Met Eireann

** $Q (l/s) = 2.78 \times I \times A$, where I is the rainfall intensity (mm/hr) and A is the factored area (ha)

The total increase in flows due to the developments in Oldtown and Mooretown is estimated at 4.0 m³/s. The fluvial flood extent map prepared for the FEMFRAM study indicates flooding in the receiving waters for a 1 in 100 year and a 1 in 1000 year return period flood. It is recommended to provide attenuation for the surface water draining from these zoned lands in order to mitigate any increase in the risk of flooding in the Broadmeadow River. The SUDS Strategy report incorporates attenuation as part of the drainage system.

11.4 Flood Zones

A flood zone map of the Broadmeadow River was prepared as part of the FEMFRAMS project in accordance with the guidelines produced by the Department of Environment, Heritage and Local Government (DoEHLG) - The Planning System and Flood Risk Management Guidelines for Planning Authorities, November 2009. The flood zones, identified as zones A, B and C are geographical areas within which the likelihood of flooding is in a particular range:

Flood Zone A –

Where the probability of flooding from rivers and the sea is highest (greater than 1% or 1 in 100 for river flooding or 0.5% or 1 in 200 for coastal flooding);

Flood Zone B –

Where the probability of flooding from rivers and the sea is moderate (between 0.1% or 1 in 1000 and 1% or 1 in 100 for river flooding and between 0.1% or 1 in 1000 year and 0.5% or 1 in 200 for coastal flooding);

And

Flood Zone C –

Where the probability of flooding from rivers and the sea is low (less than 0.1% or 1 in 1000 for both river and coastal flooding). Flood Zone C covers all areas of the plan which are not in zones A or B.

The flood zones identified in the flood zone map do not take into account the impacts of proposed developments at Oldtown and Mooretown. It is evident from the estimate prepared in Section 11.3 above that unattenuated run-off from the development at Oldtown and Mooretown would increase flows by approximately 4 m³/s. It has been shown in the FEMFRAMS flood extent map that flooding occurs in extreme events downstream in the Broadmeadow River. It is therefore proposed to attenuate the flows running off the proposed LAP lands to greenfield rates. The flood zone mapping does not take into account the effects of the earthen berm to the south of the Broadmeadow River, in accordance with *The Planning System and Flood Risk Management Guidelines for Planning Authorities, November 2009*. This is because areas that benefit from an existing flood relief scheme or flood defences have a reduced probability of flooding but can be particularly vulnerable due to the speed of flooding when overtopping or a breach or other failure takes place.

11.5 Impact of development in Oldtown-Mooretown

11.5.1 Proposed Typical Layout

General Typical Layout

Fingal County Council has prepared a proposed land use strategy map for the Oldtown Mooretown LAP area as can be seen in Figure 4.1. The extent of land is approximately 111.5 hectares in area. The land use strategy proposed for this area is for residential units of varying density, local neighbourhood centre with retail and community facilities and open space.

The residential areas are broken into three distinctive development patterns; high density lands, medium density lands and low density lands. The SuDS Strategy Report specifies the areas of land designated for high, medium and low density residential areas in Oldtown are 6.68 ha, 27.91 ha and 2.92 ha respectively. The area of land designated in Mooretown for medium and low residential use is 24.68 ha and 9.06 ha respectively.

Planning permission has been previously obtained for two schools within the Oldtown Mooretown LAP area. Further schools sites are also proposed bringing the total area within the site that is designated for schools, according to the SuDS Strategy Report, to 8.8 hectares.

Distinctive local centres are proposed for both Oldtown and Mooretown.

A site with substantial archaeological remains was discovered within the proposed development area. No development will occur on this site.

No development is proposed within the 1000 year flood plain shown on the FEM FRAMS flood map. A green buffer strip has been proposed within the site along a number of the existing streams. This green area primarily coincides with areas indicating evidence of alluvium shown on Figure 11.2. and a zone of pluvial flooding as shown in the pluvial maps prepared for the FEM FRAM study.

A Western Distributor Link Road is proposed to cross the site in a primarily North-South direction.

Source-Pathways-Receptor Model

A source-pathway-receptor model is a representation of the components of flood risk. The three components are a source of floodwater (prolonged or intense rainfall, high sea levels), the receptors (land, buildings and structures, people) that are affected by flooding and the pathway (rivers, floodplain, artificial drainage systems, overland flow etc.) through which the flood reaches those receptors. For a risk to arise, all three components must be present. Flood risk management is essentially concerned with protecting the receptors and/or modifying the pathways.

A source-pathway-receptor model has been prepared for the Oldtown-Mooretown area, see Figure 11.4.

This SPR model is indicative of the SuDS strategy proposed for the surface water management of the Oldtown Mooretown area. For further details of the SuDS features recommended see the SuDS Strategy Report by Moylan Consulting Engineers and Project Managers (18 March 2010).

This model profile in Figure 11.4 can be considered as the land meets the Broadmeadow River.

Proposals for surface water management

The proposed drainage of the site will follow a SuDS strategy which will include attenuation as outlined in the SuDS Strategy Report prepared for the LAP. The drainage methods will include the following which were found suitable for the site:

- Permeable Pavement
- Swale
- Filter Strip
- Green Roofs
- Rainwater Harvesting
- Detention Basin
- Existing Ditches
- Bioretention
- Retention Pond
- Stormwater Wetland

The SuDS Strategy Report has indicated the location of attenuation ponds outside of the 1 in 1000 year predicted flood plain.

Development proposed in the zoned areas is outside the 1 in 1000 year predicted flood plain area. The effects of any flood defences were ignored in the predictive flood zone mapping prepared for the FEM FRAM. The results in the predictive flood zone map are therefore not reliant on the integrity or height of the flood defence berm. Amenity areas proposed to the north of the development are within the 1 in 1000 year flood extent area. The layout of these areas may be influenced by the extent, height and integrity of the existing flood defence berm. Further details of the berm can be obtained from the results of the hydrological survey undertaken for the FEM FRAM. The safety of the public utilising the facilities in the amenity areas should be taken into account and early warning systems put in place for emergencies such as in the event of overtopping of the berm or a breach or other failure taking place.

11.5.2 Impact of Development in Oldtown-Mooretown on Downstream Flooding

Sustainable Urban Drainage (SUDS) will be used in the design of the individual drainage systems to minimise the possible future effects of flooding. Surface water flows running off the site will be attenuated to Greenfield rates.

11.5.3 Impact of Pluvial Flooding in the Area Proposed for future Development in Oldtown-Mooretown

The pluvial flood extent maps prepared under the FEM FRAM study for some high priority watercourses (HPW) in the Oldtown and Mooretown areas reveal pluvial flood depths of up to 2.0 m along the HPW crossing of the Rathbeale Road. This HPW extends from Mooretown into Oldtown. In addition to dedicated open space, some low and medium density housing is proposed along this pluvial flood extent area. The location of some of the proposed attenuation ponds are also indicated in this area in the SuDS Strategy Report. It is recommended that the results of the pluvial study are examined further and that the location of attenuation ponds and housing densities and/or orientation are modified to avoid this pluvial flood extent area.

To the north of Oldtown, flood depths of up to 0.5 m are indicated on the pluvial flood extent maps. In addition to dedicated open space, some high density housing is proposed along this pluvial flood extent area. It is recommended that the results of the pluvial study are examined further and that housing densities and/or orientation will be modified to avoid this pluvial flood extent area.

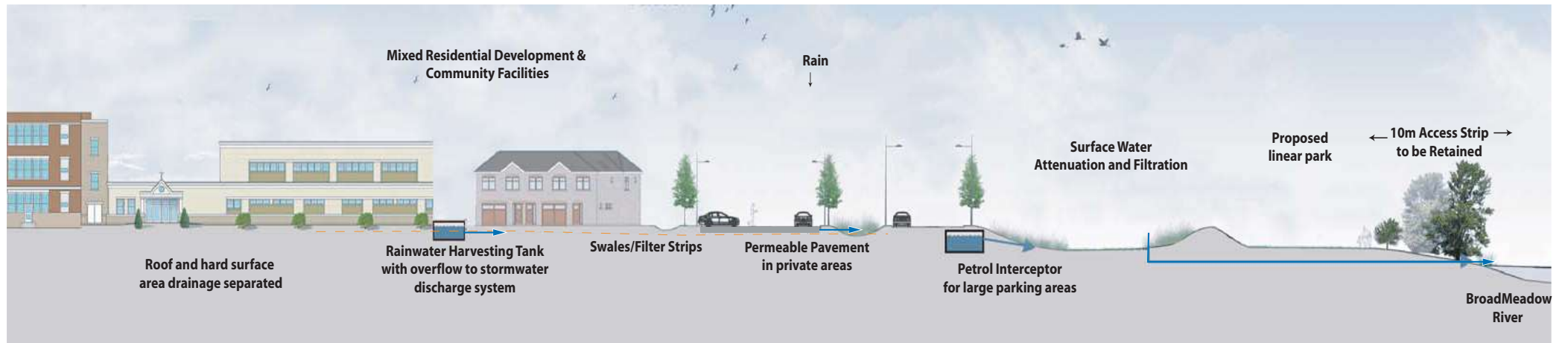
11.5.4 Vulnerability of Site Personnel and the Public

All proposed infrastructure will be located outside the 1 in 1000 predicted flood plain to ensure the safety of all users of the development. The amenity area, proposed as part of the development to the north will be located within the 1 in 1000 year predicted flood plain area. Any amenities, pathways etc. proposed for this area should provide for the safe egress and ingress of the public and emergency services to this area in the event of an emergency.

Any open bodies of water e.g. attenuation ponds and detention basins or landscaped depressed areas, with the potential to hold water during a flood event, shall be fenced off. The side slopes into such areas will be graduated into 1 in 3 slopes for safety of access and egress from these areas. Fencing with lockable gates and lifebuoys will be provided in areas with the potential to hold deep water.

11.5.5 Modification and Mitigation Measures

All surface water management systems will be designed in accordance with sustainable drainage principles. All proposed ponds and swales will be regularly maintained to reduce the risk of blockages etc.



SOURCE - PATHWAY - RECEPTOR MODEL

STRATEGIC ENVIRONMENTAL ASSESSMENT
ENVIRONMENTAL REPORT FOR THE
OLDTOWN MOORETOWN LOCAL AREA PLAN 2010-2016

Drawn: CBC

Checked: MC

Approved: TR

Draft Issue for Approval

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FIGURE 11.4

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11.6 Cumulative Flood Risk due to Proposed developments in adjacent sites

The FEM FRAM study takes into account all existing adjacent developments. There are no future lands which are proposed to be developed outside of the Oldtown and Mooretown areas. It is proposed to attenuate the flows from any development in these areas,

11.7 Residual Risks

Only a very low residual risk would remain for the LAP lands at Oldtown and Mooretown. Some pluvial flood risk remains which should be addressed further during pre-planning layout design.

All the development units and service roads will be built above the 1 in 1000 year flood level, therefore the residual risk to personnel and infrastructure is very low.

The amenity area which is proposed to be located to the north of the development is within the 1 in 1000 year flood plain area. This amenity area will incorporate facilities to provide for adequate access and egress from the area in the event of an emergency, therefore the residual risk to users of the amenity area will be low.

Due to the proposed adoption of Sustainable Urban Drainage (SUDS) principles in the surface water management of the development, the risk of an increase in flooding downstream is very low.

All new developments are required to adopt Sustainable Urban Drainage (SUDS) principles in their surface water management and to conduct a flood study in areas of flood risk, therefore the residual risk of any cumulative impact on flooding in the future due to neighbouring developments is low.

11.8 Conclusions and recommendations

A strategic flood risk assessment was carried out for zoned lands at Oldtown and Mooretown, Co. Dublin. It was found that the development could increase the surface water run-off from the site by 4 m³/s in a 1 in 100 year storm event. This increase would flow towards the Broadmeadow River.

A flood zone map was created for the FEM FRAM study. This map was examined in the context of the Oldtown and Mooretown areas and it was found that the developments are proposed to be located outside of flood zone B i.e. above the 1 in 1000 year flood level. The proposed amenity area to the north will however be located within the 1 in 1000 year flood zone area and provision should be made to consider the safety of users of this area and to provide adequate flood warning systems in an emergency.

The pluvial maps prepared for the FEM FRAM study were also examined. The high priority watercourses within the Oldtown and Mooretown areas indicated flood levels up to 2 m along the watercourse crossing the Rathbeale Road and some pluvial flooding to the north of the Oldtown area. As a result of these findings it is recommended that the pre-planning layout design takes cognisance of the emerging pluvial study.

A SUDS Strategy Study was prepared for the development lands. The SUDS Strategy Study was informed by the results of this strategic flood risk assessment report. The strategic flood risk assessment found that, without any mitigation measures, the proposed development lands would increase the risk of flooding in the downstream receptor. In order to avoid any increase in this flooding, attenuation of the surface water run-off from the site is recommended. The SUDS Strategy Study therefore incorporates mitigation measures for the attenuation of surface water flows from the development to greenfield (pre-development) rates. Attenuation ponds have been successfully used in development sites to attenuate surface water flows to greenfield Rates. A high degree of confidence in the success of this method of mitigation can be expected, provided they are located above areas with a history of pluvial and fluvial flooding and provided that they are installed correctly and maintained regularly.

The design of the mitigation measures will be provided at detailed design stage and it is recommended that these measures are adopted to minimise any residual flood risk downstream of the site.

12 MITIGATION MEASURES

Mitigation measures are required to eliminate/ remediate/ reduce significant negative environmental impacts. Based on the source/ pathway/ receptor concept where an environmental burden (e.g. water pollution, air pollution) can impact on a receptor e.g. human, water, biodiversity or landscape via particular pathways these significant impacts can be either mitigated at:

- Source e.g. avoid the impacts at source
- Pathway e.g. reduce the magnitude of the impact
- Receptor e.g. compensate for the impact by providing an alternative

A number of the International and National environmental policies, for example, the Habitats Directive, the Water Framework Directive, the EPA's Code of Practice for Unregulated Landfill Sites, the DoEHLG Guidelines for Wind Energy for Planning Authorities and the EPA's Guidance Note for Wastewater Treatment Systems for Once-off Housing, have listed appropriate mitigation measures to minimise impacts on the environment. Many of the mitigation measures, particularly for water will be driven by the Water Framework Directive and the requirement to meet good quality status by 2015.

To negate or minimise these impacts, mitigation measures are set out in Section 12.1.

12.1 Mitigation Measures

During the development of the LAP, the SEA process has identified several additional measures needed to be included in the LAP. These measures have come about through scoping consultation and responses received from the EPA and Fisheries Board and through specialist assessment of the proposed objectives and policies.

12.1.1 Water Quality

The status of the Broadmeadow River and its impact on the designated Malahide Estuary were one of the main considerations in the development of the LAP from the SEA perspective. Protection of the Broadmeadow was enhanced by the inclusion of several water services key objectives; namely

- It is mandatory that The Eastern Region Fisheries Board be contacted before planning works that may have an impact on surface waters. Private developers will be required to provide evidence that such consultation has taken place in accordance with per Planning and Development Regulations , 2001, Section 28
- The document "Requirements for the Protection of Fisheries Habitat during Construction and Development Works at River Sites" shall be consulted by any stakeholder when planning to undertake river or riparian works
- Riparian zones of 10 m (minimum) are required for streams on site maintaining the existing riparian vegetation.
- No development shall be permitted in the 1 in 100 year and 1 in 1000 year flood probability, as defined by FEMFRAMS.
- Support the Water Framework Directive in implementing the Eastern River Basin District Management Plan 2009-2015 and the Program of Measures for the Broadmeadow River, and the Fingal Ground Water Protection Scheme.

These objectives are sufficient together with the biodiversity objectives to protect the surface water quality and the Broadmeadow River. There are no further recommended mitigation measures.

12.1.2 Road noise

The Noise Mapping prepared for Fingal identified traffic noise as the dominant source of 'undesirable' noise levels in Fingal. As a consequence of this, the inclusion of noise in the EPA's scoping submission and the requirement for new road development, an objective relating to low noise road surfacing has been included in Section 3.9 of the LAP.

12.1.3 Habitat Directive Assessment Procedures

The Broadmeadow will receive all surface waters from the LAP lands and the surface water quality will have a direct impact on the Malahide Estuary which is a European site. Under the Habitats Directive, all proposals which have the potential to impact on a European site require, as a minimum, a Habitats Directive assessment screening. This is addressed under section 3.9 of the LAP, which states, "At detailed planning application stage all developments which could impact on the Broadmeadow River will be subject to the requirements of the Habitats Directive."

- At detailed planning application stage all developments which could impact on Broadmeadow River will be subject to requirement of Habitats Directive.
- All new/reviewed/ amended plans and developments proposed within LAP lands which have the potential to impact on the Broadmeadow River and potentially designated habitats will be required to prepare a Natura Impact Assessment in line with Article 6 of the Habitats Directive.
- Protect and enhance the biodiversity of the plan lands through the incorporation of existing trees and hedgerows within green corridors and development of strategic planting along the western boundary in consultation with the National Parks and Wildlife Service and Eastern Regional Fisheries Board.
- Undertake a detailed tree/hedgerow survey and biodiversity study with habitat mapping as part of the Masterplan(s) for the LAP.
- Support conservation plans for designated ecological areas which the LAP lands have potential to impact.

12.1.4 Green Links

The LAP includes objectives to ensure connectivity and accessibility of the open space network (within the LAP lands and in the context of the regional open space system) by the provision of green links incorporating cycle and pedestrian routes. The LAP Strategy Map indicates green links (pedestrian/cycle access) from the Oldtown lands to the neighbouring estates to the east. The LAP Strategy Map also indicates a green link between the Rathbeale Archaeological Park, Swords Regional Park and Broadmeadow River Linear Park. The green links between the archaeological park and the regional park and the linear park are important in future development of plan lands.

12.1.5 Visual Amenity

The viewshed which the Conservation Plan for the Rathbeale Archaeological Park seeks to protect (view towards the northern uplands) is indicated on the LAP Strategy Map, and in the LAP text to guide master planning for the Oldtown lands.

12.1.6 Alignment of Road network with Water Mains

The main arranging element of the road network for the Oldtown lands indicated on the LAP Strategy Map is the WDLR. The alignment of the WDLR has been determined by a trunk water main. This would result in the layout of the Oldtown neighbourhood being dictated by the alignment of a water main which takes no cognisance of existing natural and built landscape characteristics and features. This is not best practice in urban design terms. However, the LAP was amended to include a requirement for the detail design of the WDLR to be undertaken in tandem with the master planning of the Oldtown neighbourhood.

12.1.7 Building Design, Energy Efficiency and Sustainability

- Ensuring that development proposals demonstrate reduced energy consumption in their design and construction.
- Ensuring that development proposals incorporate where possible alternate energy technologies.
- Ensuring that all proposals above 30 residential units and or buildings greater than 1000m² provide details of the requirements for alternative renewable energy systems, to be submitted at pre planning stage for consideration.
- Developers shall give consideration to the provision of higher levels of noise insulation than in the current Building Regulations or any updated standards.

12.1.8 Construction Waste Management

- Developer(s) shall be required to submit a construction programme setting out a planned programme for the management/recovery/disposal of construction/demolition waste material generated at the site during the excavation and construction phases of development, in accordance with the relevant national waste management legislation, at planning application stage.

Table 12.1: Mitigation Measures for Conflicting Plan Objectives

LEGEND:

- ++ Long term/ permanent positive impact
- + Short term positive impact
- Long term/ permanent negative impact
- Short term negative impact
- ? May conflict with environmental objectives

Objective	B1	W1	AC1	N1	S1	P1	P2	P3	P4	CH1	MA1	MA2	L1	Mitigation Measure
Key Objectives: Archaeological Heritage														
Key Objectives: Transport														
Provide for the development of Western Distributor Link Road with associated pedestrian/cyclist route and accommodation of strategic tree planting.	--	--		--	--	++							?	<ul style="list-style-type: none"> The document "Requirements for the Protection of Fisheries Habitat during Construction and Development Works at River Sites" shall be consulted by any stakeholder when planning to undertake river or riparian works Riparian zones of 10 m (minimum) are required for streams on site maintaining the existing riparian vegetation. Developer(s) shall be required to submit a construction programme setting out a planned programme for the management/recovery/disposal of construction/demolition waste material generated at the site during the excavation and construction phases of development, in accordance with the relevant national waste management legislation, at planning application stage.

Objective	B1	W1	AC1	N1	S1	P1	P2	P3	P4	CH1	MA1	MA2	L1	Mitigation Measure
Adjust the vertical alignment of Rathbeale Road along the frontage of the LAP lands to improve sight lines in the area and facilitate safe access for pedestrians/cyclists across the Rathbeale Road.				?		++								<ul style="list-style-type: none"> Inclusion of objective for use of low noise road surfaces
Redesign the Glen Ellen Road Extension so that its function changes from a distributor road to a main street, which will serve 2 schools, a large park and local centre, in addition to dwellings.				?		++								<ul style="list-style-type: none"> Inclusion of objective for use of low noise road surfaces
Key Objectives: Sustainable Neighbourhoods														
Promote well-designed quality residential development with mix of housing types, sizes and tenures and with a range of community, commercial and amenity facilities, within walking distance.	--	--			-	++	++		++	++				<ul style="list-style-type: none"> It is mandatory that The Eastern Region Fisheries Board be contacted before planning works that may have an impact on surface waters. Private developers will be required to provide evidence that such consultation has taken place in accordance with per Planning and Development Regulations , 2001, Section 28 Support the Water Framework Directive in implementing the Eastern River Basin District Management Plan , the Program of Measures for the Broadmeadow River and the Fingal Ground Water Protection Scheme. Prevent deterioration in status of Broadmeadow River.
Key Objectives: Housing														
Promote the provision of a wide choice of dwelling types, tenure and size to reflect the diversity of needs in the expanding community.	--	--			--	++	++							<ul style="list-style-type: none"> It is mandatory that The Eastern Region Fisheries Board be contacted before planning works that may have an impact on surface waters. Private developers will be required to provide evidence that such consultation has taken place
Promote the provision of family sized residential units.	--	--			--	++	++							

Objective	B1	W1	AC1	N1	S1	P1	P2	P3	P4	CH1	MA1	MA2	L1	Mitigation Measure
														in accordance with per Planning and Development Regulations , 2001, Section 28 <ul style="list-style-type: none"> Support the Water Framework Directive in implementing the Eastern River Basin District Management Plan , the Program of Measures for the Broadmeadow River, and the Fingal Ground Water Protection Scheme. Prevent deterioration in status of Broadmeadow River. Developer(s) shall be required to submit a construction programme setting out a planned programme for the management/recovery/disposal of construction/demolition waste material generated at the site during the excavation and construction phases of development, in accordance with the relevant national waste management legislation, at planning application stage.
Key Objectives: Retail/Education/Community and other services														
Provide a school campus within Mooretown lands to comprise one primary and one post-primary school.	--	--			--	++			++	++				<ul style="list-style-type: none"> It is mandatory that The Eastern Region Fisheries Board be contacted before planning works that may have an impact on surface waters. Private developers will be required to provide evidence that such consultation has taken place in accordance with per Planning and Development Regulations , 2001, Section 28 Support the Water
Provide 2 primary schools within the Oldtown lands.	--	--			--	++			++	++				
Facilitate development of a primary care centre within Mooretown Local Centre.	--	--			--	++			++	++				

Objective	B1	W1	AC1	N1	S1	P1	P2	P3	P4	CH1	MA1	MA2	L1	Mitigation Measure
														Framework Directive in implementing the Eastern River Basin District Management Plan , the Program of Measures for the Broadmeadow River, and the Fingal Ground Water Protection Scheme. <ul style="list-style-type: none"> Prevent deterioration in status of Broadmeadow River. Developer(s) shall be required to submit a construction programme setting out a planned programme for the management/recovery/disposal of construction/demolition waste material generated at the site during the excavation and construction phases of development, in accordance with the relevant national waste management legislation, at planning application stage.
Objectives: Building Design, Energy Efficiency and Sustainability														
Ensuring that development proposals incorporate where possible alternate energy technologies.			++										?	The viewshed which the Conservation Plan for the Rathbeale Archaeological Park seeks to protect (view towards the northern uplands) is indicated on the LAP Strategy Map, and in the LAP text to guide master planning for the Oldtown lands.
Ensuring that all proposals above 30 residential units and or buildings greater than 1000m ² provide details of the requirements for alternative renewable energy systems, to be submitted at pre planning stage for consideration.			++										?	

13 MONITORING PROGRAMME

13.1 Introduction

Under Article 10 and Section (i) of Schedule 2B of the SEA Regulations, monitoring is required in order to identify at an early stage any unforeseen adverse effects caused by the Plan. This allows remedial action to be taken. Monitoring allows the actual impacts of the Plan to be measured against those that were predicted. It allows major problems to be identified and dealt with in a timely fashion, and environmental baseline information to be gathered for future Plan reviews. It also ensures that proposed mitigation measures are carried out and that no unforeseen impacts occur (Therivel, 2004). The methodology used in the development of the monitoring programme for the Oldtown Mooretown Development Plan is based on the use of indicators and targets, the assignment of responsibilities and the setting of appropriate time lines. It also includes intervention in the event of an unforeseen occurrence.

Monitoring is carried out by reporting on the set of indicators and targets drawn up for the various environmental aspects and used to describe future trends in the baseline, which enable positive and negative impacts on the environment to be measured. The indicators that are used show changes that would be attributable to implementation of the Plan. In particular, the indicators can also in certain circumstances act as an early warning system should unforeseen impacts occur or conditions deteriorate further or faster than anticipated. For example, water quality indicators describe trends in both improvements and deterioration in water quality. If quality targets are not being reached and water is seen to be unexpectedly deteriorating immediate intervention will be required.

13.2 Monitoring Programme

Monitoring will focus on aspects of the environment that are likely to be significantly impacted by the Plan. Indicators and targets have been identified for the main environmental issues in the study area, namely water, biodiversity, cultural heritage and landscape.

Much of the indicator information required is already being actively collected and reported at a level sufficient to meet the needs of this Plan. The frequency of monitoring is set by relevant legislation.

13.3 Responsibilities

Fingal County Council is responsible for the implementation of the monitoring programme in relation to the Plan.

13.4 Sources of information

The indicators chosen are at a level, which is relevant to the Plan, and are collated and reported on by a variety of Government Agencies, such as EPA, OPW, National Parks and Wildlife Services and different sections within Fingal County Council.

In Tables 13.1 the format for the monitoring programme for this Plan is detailed in relation to relevant indicators, targets and frequency of monitoring, point at which additional action may be required and what type of intervention is required if a problem is identified.

Based on the information above it can be seen that all of the indicator information required is already being actively collected and reported at a level sufficient to meet the needs of this Plan. The frequency of monitoring is set and the point at which additional action and its required form are also detailed.

13.5 Frequency of Reporting

It is recommended that Fingal County Council carry out a mid-term review of performance against SEA Objectives. This would occur in 2013 and would use information in the most recent information from the EPA State of the Environment Report. It is further recommended that reporting on the overall monitoring of the Plan is made to the EPA SEA Section.

Table 13.1: SEA Monitoring Requirements

SEA Objective		SEA Indicator	SEA Target	Source Responsibility
B1	<p>Biodiversity, fauna and flora</p> <p>Conserve the diversity of habitats and protected species.</p>	<ul style="list-style-type: none"> Percentage of unique habitats and species lost in designated sites through trending of regular habitat surveys. Provision of Article 6 assessments with developments proposed for sites overlying or potentially impacting Natura 2000 sites in study area. Broadmeadow River water quality status 	<ul style="list-style-type: none"> No loss of protected habitats and species during the lifetime of the LAP. Protection of Natura 2000 (SAC) sites in study area from significant effects of proposed developments Improvement or at least no deterioration in the Broadmeadow River by 2015 	<ul style="list-style-type: none"> Fingal County Council Fingal County Council NPWS Fingal County Council Eastern River Basin District
W1	<p>Water</p> <p>Maintain or improve the quality of surface water to status objectives as set out in the Water Framework Directive (WFD), to protect and enhance the status of aquatic ecosystems and, with regard to their water needs, terrestrial ecosystems directly depending on the aquatic ecosystems.</p>	<ul style="list-style-type: none"> Changes in receiving water quality 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 Provision of flood risk evaluations with proposed developments/ changes to land strategy with emphasis on flood risk management 	<ul style="list-style-type: none"> Improvement or at least no deterioration in surface water quality by 2015 Improvement or at least no deterioration in groundwater quality as per the WFD 'good' quality status by 2015 Prevention of flood damage to land and properties Adherence to The Planning System and Flood Risk Management –Guidelines for Planning Authorities (November 2009) 	<ul style="list-style-type: none"> Fingal County Council Eastern River Basin District Fingal County Council EPA Fingal County Council Eastern River Basin District Fingal County Council Fingal County Council
AC1	<p>Air/climatic factors</p> <p>Protect and enhance ambient air quality and contribute to national climate change policy</p>	<ul style="list-style-type: none"> Provision of new public transport routes on Rathbeale Road or road servicing LAP lands Provision of cycle lanes and walking routes EPA air quality indicators from Swords air monitoring station New residential buildings with a minimum A3 BER rating Development within 1:1000 year floodplain 	<ul style="list-style-type: none"> Number of new residential buildings with a minimum A3 BER rating % increase in use of public transport Increase numbers of cycle lanes and pedestrian routes in the study area Maintain or improve ambient air quality through reduction of private vehicle usage No development within 1:1000 year floodplain 	<ul style="list-style-type: none"> Fingal County Council

SEA Objective		SEA Indicator	SEA Target	Source Responsibility
N1	Noise Minimise environmental noise	<ul style="list-style-type: none"> Number of complaints from householders 	<ul style="list-style-type: none"> Maintain daytime noise levels to less than 70 dB Maintain night-time noise levels to 55 dB 	<ul style="list-style-type: none"> Fingal County Council
S1	Soil (including minerals) Maintain the quality of soils	<ul style="list-style-type: none"> % of greenfield/ open space retained of total available area Quality of surface water run-off 	<ul style="list-style-type: none"> LAP target for green space provision No contamination incidents 	<ul style="list-style-type: none"> Fingal County Council
P1	Population: Improve people's quality of life based on high quality residential, working and recreational environments and on sustainable travel patterns.	<ul style="list-style-type: none"> Preparation of master plans for development of Oldtown and Mooretown lands. Provision of appropriate mix of house types and tenures in the LAP area. Provision of adequate social and affordable housing in the LAP area. Provision of local employment opportunities, including live/work units. Provision of adequate class 1 and class 2 open space within walking distance of houses. Provision of a network of connected green links/routes incorporating pedestrian and cycle routes throughout the LAP area. Provision of adequate childcare and primary and secondary school facilities in the LAP area. 	<ul style="list-style-type: none"> Submission of master plans for development of Oldtown and Mooretown lands to Fingal Co. Co., and approval of the master plans by Fingal Co. Co., prior to any planning applications for development. House type/size mix of maximum 20% one and two bed units and minimum 80% three bed units and larger. Appropriate mix of tenure: a minimum of 80% of homes in private occupancy in all new development. Provision and distribution of Social and Affordable housing in accordance with the Housing Strategy contained in the Fingal County Development Plan 2005-2011. Provision of class 1 and 2 open space in accordance with requirements of the County Development Plan 2005-2011. Interconnection of all class 1 and 2 open spaces by green links/corridors incorporating pedestrian and cycle routes. Provision, in tandem with development and in accordance with phasing programme, of primary and secondary school facilities as per the stated requirements of the Department of Education and Science. Provision, in tandem with development and in accordance with phasing programme, of premises for childcare facilities in accordance with the Guidelines for Planning Authorities 2001. Provision, in tandem with development 	<ul style="list-style-type: none"> Fingal County Council Planning Department Fingal County Council Parks Department Fingal County Council Heritage Officer Fingal County Childcare Committee Department of Education Developer
P2	Ensure that a good mix of residential types and tenures is provided.			
P3	Ensure that a good mix of quality employment opportunities is provided where they can be accessed by public transport.			
P4	Ensure that sufficient community services and facilities are provided, including education, childcare, primary health care, open space and recreation, retail and professional services.			

SEA Objective		SEA Indicator	SEA Target	Source Responsibility
			<p>and in accordance with phasing programme, of premises for a 'Two Primary Care Team (2PCT) Centre', as per the HSE definition, in the Mooretown Local Centre.</p> <ul style="list-style-type: none"> • Provision, in tandem with development and in accordance with phasing programme, retail and services, including the retail and service types listed in the LAP, in the Mooretown Local Centre. • Provision, in tandem with development and in accordance with phasing programme retail and services, including the retail and service types listed in the LAP, in the Oldtown Local Centre. • Provision for retail and service types that will generate night-time activity in the Local Centres. 	
CH1	<p>Cultural heritage</p> <p>Promote and protect the cultural, including architectural and archaeological, heritage</p>	<ul style="list-style-type: none"> • Number of unauthorised developments permitted over the lifetime of the Plan which resulted in the loss or partial loss of protected structures or sites of archaeological status. • Number of unauthorised developments in protected sites and complexes • Number of unauthorised developments permitted which result in the loss or damage to archaeological features 	<ul style="list-style-type: none"> • No unauthorised developments permitted over the lifetime of the LAP which will result in the loss or partial loss of protected structures or sites of archaeological importance • Ensure that all planning applications that might have an impact on heritage are referred to the DoEHLG for comment and that their recommendations are adhered to. • Use of National Heritage Plan (2002) in setting archaeological policies and principles • No unauthorised developments in protected sites and complexes. • No unauthorised developments permitted during the lifetime of the Plan which could result in damage to archaeological features 	<ul style="list-style-type: none"> • Fingal County Council
MA1	<p>Material assets</p> <p>Maximise use of the existing built environment</p>	<ul style="list-style-type: none"> • Number of private cars on road as a percentage of AADT • Quantity of household waste sent to landfill • Quantity of household waste sent for recycling • Completion of WWTP upgrade to 120,000 PE capacity. 	<ul style="list-style-type: none"> • Reduce the number of private vehicles on the road. • Increase use of public transport. • Production in the quantities of waste sent to landfill • Increase in the quantities of waste sent for recycling 	<ul style="list-style-type: none"> • Fingal County Council
MA2	<p>Provide sufficient drinking water supply, and sufficient wastewater management</p>			

SEA Objective		SEA Indicator	SEA Target	Source Responsibility
	capacity to accommodate the projected population of the subject area.		<ul style="list-style-type: none"> Provision and upgrade to provide adequate wastewater infrastructure based on existing and forecasted population demands Implement the Water Supply Plan as per the Water Services National Investment Programme 	
8	<p>Landscape:</p> <p>Protect or, where appropriate, develop the character, diversity and special qualities of landscapes (including urban landscapes) in Fingal through conservation, planning, design and management.</p>	<ul style="list-style-type: none"> Identifiable incorporation of existing landscape characteristics and features into new development. Neighbourhoods with distinctive and diverse urban character, informed by local natural and built landscape character and features. Retention of protected views and other views identified as valuable. Extent of retention and connectivity of related landscape features, e.g. hedgerows. Extent of connectivity, by green links incorporating pedestrian and cycle routes, of class 1 and class 2 open spaces. Multi-functionality of SUDS measures, i.e. amenity and biodiversity in addition to water management. 	<ul style="list-style-type: none"> Quantity of new, strategic planting for amenity and biodiversity, by area, in the LAP lands. Development of two neighbourhoods (Oldtown and Mooretown, with sub-areas) of distinct character defined by residential density, layout, and architecture. Degree of additional obstruction of views north from the archaeological park and Rathbeale Road. Proportion of existing hedgerow (by length) and mature trees (by number) retained in new development. All class 1 and class 2 open spaces to be connected to at least one other by a green link incorporating pedestrian and cycle routes. Provision of a distinct, legible approach route for vehicles, pedestrians and cyclists, through the Oldtown lands to an identified main entrance to the Swords Regional Park. Preparation of master plans for development and management of all parks identified in the LAP, linked to the approval of planning applications for residential and other development in the LAP area. Incorporation of amenity and biodiversity functions into plans for development and management of SUDS measures. 	<ul style="list-style-type: none"> Fingal County Council Planning Department Fingal County Council Parks Department Fingal County Council Heritage Officer Fingal County Council Water Services Department Developer

14 INTERACTION BETWEEN LOCAL AREA PLAN PREPARATION AND SEA

14.1 Scoping Consultation

As described in Section 6, scoping consultation was held with the SEA statutory consultees and the relevant stakeholders identified by Fingal County Council.

Responses were received from the statutory consultees and submissions were compared with the LAP to identify where the submissions were dealt with in the plan. Table 14.1 of this report illustrates where consultees comments and SEA mitigation were incorporated into the LAP policies and objectives.

Table 14.1: Consideration of Consultees Comments into the draft LAP

Issue	Inclusion of Objective
<p>In determining the likely significant effects of the Oldtown-Mooretown LAP, regard should be had to the need for the sustainable development of the inland and marine fisheries resource (including the conservation of fish and other species of fauna and flora, aquatic habitats and the biodiversity of inland and marine water ecosystems). Consideration should be given to potential significant impacts on:</p> <ul style="list-style-type: none"> • Water quality • Surface water hydrology • Fish spawning and nursery areas • Passage of migratory fish • Areas of natural heritage importance including geological heritage sites • Biological Diversity • Ecosystem structure and functioning • Sport and commercial fishing and angling • Amenity and recreational areas 	<p>Key Objectives Water Services</p> <p>“Support the Water Framework Directive in implementing the Eastern River Basin District Management Plan and the program for measures for the Broadmeadow River”</p> <p>“Protect and manage existing watercourses within the plan lands and provide riparian corridors alongside these corridors”.</p>
<p>We would advocate building on this improvement through comprehensive consideration of aquatic ecological protection in the development of any LAP for this area.</p>	<p>Key Objectives Water Services</p> <p>“Support the Water Framework Directive in implementing the Eastern River Basin District Management Plan and the program for measures for the Broadmeadow River”</p> <p>“Protect and manage existing watercourses within the plan lands and provide riparian corridors alongside these corridors”</p> <p>Riparian zones of 10 m (minimum) are required for streams on site maintaining the existing riparian vegetation’.</p>
<p>It is essential that the Board be contacted in relation to all works that may have an impact on surface waters (as per Planning and Development Regulations , 2001, Section 28).</p>	<p>Key Objective Water Services</p> <p>“It is mandatory that The Eastern Region Fisheries Board be contacted before planning works that may have an impact on surface waters. Private developers will be required to provide evidence that such consultation has taken place in accordance with per Planning and Development Regulations , 2001, Section 28”</p>

Issue	Inclusion of Objective
The disturbance of riparian habitats should be minimised. An undisturbed buffer zone between development area and river bank should be maximised (10m minimum as per GSDSD recommendations).	<p>Key Objective Water Services</p> <p>“Protect and manage existing watercourses within the plan lands and provide 10m riparian corridors alongside these corridors”.</p>
Riparian vegetation should be retained in as natural a state as possible at all times	<p>Key Objective Water Services</p> <p>“Protect and manage existing watercourses within the plan lands and provide 10m riparian corridors alongside these corridors”.</p>
The Board would welcome the designation of lands adjacent to surface waters, particularly salmonid systems as areas of open preservation allowing protection / enhancement of biological diversity while providing open space and recreational amenity for river users. Natural heritage objectives should include maintenance of buffer zones of at least 10m from the water’s edge along both banks of the surface waters in the LAP area.	<p>Key Objective Water Services</p> <p>“Protect and manage existing watercourses within the plan lands and provide 10m riparian corridors alongside these corridors”.</p>
A Council commitment to reject proposals that would interfere with natural floodplains would greatly benefit both aquatic and riparian features in the surrounding areas.	The floodplains are identified as open space along the Broadmeadow River within the Broadmeadow Linear Park, designated under Objective Swords 17 as part of the Swords Variation 29 (adopted July 2008) . No development is allowed within floodplain area.
The implementation of a SUDS design for surface water disposal in any areas of increased urbanisation is a positive indicator of the Council’s intention for the sustainable development of the area and should, in conjunction with good management of the site, aid in flooding and pollution management. Policies and recommendations made under the Greater Dublin Strategic Drainage Study (GSDSDS) should be applied in development of a drainage strategy for the LAPs under consideration.	The SUDS design as part of the LAP is based on the recommendations of the GSDSDS.
LAP must address the need to meet WFD objectives for all surface waters in the region.	<p>Key Objective Water Services</p> <p>“Support the Water Framework Directive in implementing the Eastern River Basin District Management Plan and the programme for measures for the Broadmeadow River”</p>
Requirements for the Protection of Fisheries Habitat during Construction and Development Works at River Sites” (http://www.fishingireland.net). This document should be consulted by any stakeholder when planning to undertake river or riparian works in the ERFB area.	<p>Key Objective Water Services</p> <p>“The document “Requirements for the Protection of Fisheries Habitat during Construction and Development Works at River Sites” (http://www.fishingireland.net) should be consulted by any stakeholder when planning to undertake river or riparian works”</p>

Issue	Inclusion of Objective
Climate Change – Mitigation Measures and Adaptation	<p>Key Objectives Building Design, Energy Efficiency and Sustainability</p> <p>“Ensuring that development proposals demonstrate reduced energy consumption in their design and construction.”</p> <p>“Ensuring that development proposals incorporate where possible alternate energy technologies.”</p> <p>“Ensuring that all proposals above 30 residential units and or buildings greater than 1000m² provide details of the requirements for alternative renewable energy systems, to be submitted at pre planning stage for consideration.”</p>
Energy Conservation	<p>Key Objectives Building Design, Energy Efficiency and Sustainability</p> <p>“Ensuring that development proposals demonstrate reduced energy consumption in their design and construction.”</p> <p>“Ensuring that development proposals incorporate where possible alternate energy technologies.”</p> <p>“Ensuring that all proposals above 30 residential units and or buildings greater than 1000m² provide details of the requirements for alternative renewable energy systems, to be submitted at pre planning stage for consideration.”</p>
Water Conservation	<p>Key Objective Water Services</p> <p>“Ensure incorporation of water conservation measures into the design of proposed developments.”</p>
Eastern River Basin District River Basin Management Plan	<p>Key Objectives Water Services</p> <p>“Support the Water Framework Directive in implementing the Eastern River Basin District Management Plan and the program for measures for the Broadmeadow River”</p>
Biodiversity – Broadmeadow River, Broadmeadow Estuary, ecological linkages such as hedgerow networks & trees (both individual / groups).	<p>Key Objective Water Services</p> <p>“Protect and manage existing watercourses within the plan lands and provide 10m riparian corridors alongside these corridors”.</p>
Water Quality (WFD & EPA classifications)	<p>Key Objectives Water Services</p> <p>“Support the Water Framework Directive in implementing the Eastern River Basin District Management Plan and the program for measures for the Broadmeadow River”</p>
Flood Risk Assessment	<p>A Strategic Flood Risk Assessment is prepared and is Section 11 of this report.</p>

Issue	Inclusion of Objective
Appropriate Assessment	<p>Key Objective Biodiversity</p> <p>“At detailed planning application stage all developments which could impact on Broadmedow River will be subject to requirement of Habitats Directive.”</p>
<p>Appropriate Assessment</p> <p>A determination for the requirement for an Appropriate Assessment of all Land Use Plans and related variations/amendments should be made in consultation with the Department of Environment, Heritage and Local Government - National Parks and Wildlife Service, and this should be highlighted in the Plan.</p> <p>The Plan, should promote the setting up of procedures to ensure compliance with the requirement of Article 6 of the Habitats Directive.</p>	<p>Key Objective Biodiversity</p> <p>“At detailed planning application stage all developments which could impact on Broadmedow River will be subject to requirement of Habitats Directive.”</p>

14.2 Evaluation of Pre-release draft LAP

Section 12 of this report details where mitigation measures proposed during the preparation of the draft LAP were included as new objectives and policies. Table 14.2 summarises these measures.

Table 14.2: Pre-release SEA Derived Policies and Objectives

Issue	Inclusion of Objective
<p>Promotion of green links</p> <p>The LAP includes objectives to ensure connectivity and accessibility of the open space network (within the LAP lands and in the context of the regional open space system) by the provision of green links incorporating cycle and pedestrian routes.</p>	<p>Pedestrian and cycle access points between the Oldtown lands and the neighbouring estates are now shown on the LAP strategy map.</p>
<p>Access to Regional Park</p> <p>The Regional Park is of strategic importance to the population of Swords; it is the pinnacle of the open space network. The Oldtown lands will be the gateway neighbourhood to this park. It is recommended that in accordance with the park's status, an access route (or routes, for cars, pedestrians and cyclists) be identified on the draft LAP Strategy map and that a boulevard-type or otherwise significant treatment be specified for the route/s in the draft LAP text.</p> <p>This will require identification of the main access point to the Regional Park. It is recommended that this decision be taken with consideration of the potential positive impacts (in terms of character, identity, amenity) on the new Oldtown neighbourhood which a suitable access route through the neighbourhood would have.</p>	<p>A direct green link between the Archaeological Park and the Regional Park through the Oldtown lands is now included on the draft LAP strategy drawings, and will be required to be designed in detail in the master planning exercise.</p>

Issue	Inclusion of Objective
<p>Visual Amenity</p> <p>It was recommended that the viewshed which the Conservation Plan for the Rathbeale Archaeological Park seeks to protect (view towards the northern uplands) be indicated on the draft LAP Strategy map, to guide master planning for the Oldtown lands. It is recommended that the protected view on Rathbeale Road also be indicated on the map, and that it be considered/accommodated in the detail design of the archaeological park.</p>	<p>Both the viewshed from the Rathbeale Archaeological Park and from the Rathbeale Road have been indicated on the Draft LAP strategy drawings.</p>
<p>Alignment of Road network with Water Mains</p> <p>The main element of the road network for the Oldtown lands indicated on the Draft LAP strategy map is the WDLR. The alignment of the WDLR has been determined by a trunk water main. This would result in the layout of the Oldtown neighbourhood being dictated by the alignment of a water main which takes no cognisance of existing natural and built landscape characteristics and features. This is not good practice in urban design. It was recommended that the realignment of the WDLR (and the water main) be reconsidered, to allow for the layout of the Oldtown lands to be determined by urban design principles.</p>	<p>The recommended option (realigning the WDLR to improve the urban layout of Oldtown, requiring the re-routing of the water main) was considered too expensive. The Draft LAP was amended to include a requirement for the detail design of the WDLR to be undertaken in tandem with the master planning of the Oldtown neighbourhood.</p>

14.3 Evaluation of Amendments to the Draft LAP

The draft LAP and SEA Environmental Report were put on public display in April 2010. This constituted a first public display period. Twenty seven general submissions/observations were received during the consultation period. In addition, fourteen motions were made by the Councillors on the draft LAP.

A Managers report was prepared detailing where amendments were proposed to the draft LAP from the submissions received. The report also detailed responses to the submissions where amendments were not proposed.

These amendments were assessed by FTC and the impacts on the strategic environmental objectives were considered in a report titled "Strategic Environmental Assessment Report on Proposed Amendments to the Draft Oldtown Mooretown Local Area Plan" 15" dated 21 July 2010.

Table 14.3 details where new or amended (in bold) environmental objectives were proposed to the draft Plan.

Table 14.3: Post Public Consultation SEA Derived Policies and Objectives

Issue	Inclusion of New or Amended Objective
Allowable development in FEM FRAM identified flood areas	No development shall be permitted in the 1 in 100 year and 1 in 1000 year flood probability, as defined by FEMFRAMS.
Incorporation of Habitat Directive assessments into future development proposals	All new/reviewed/ amended plans and developments proposed within LAP lands which have the potential to impact on the Broadmeadow River and potentially designated habitats will be required to prepare a Natura Impact Assessment in line with Article 6 of the Habitats Directive.
Provision of consultation with National Parks and Wildlife Service and the Fisheries Board when proposing planting and biodiversity enhancements to the lands	Protect and enhance the biodiversity of the plan lands through the incorporation of existing trees and hedgerows within green corridors and development of strategic planting along the western boundary in consultation with the National Parks and Wildlife Service and Eastern Regional Fisheries Board.
Inclusion of habitat mapping as part of future biodiversity studies	Undertake a detailed tree/hedgerow survey and biodiversity study with habitat mapping as part of the Masterplan(s) for the LAP.
Provide for Fingal County Councils to support conservation plans for downstream designated sites	Support conservation plans for designated ecological areas which the LAP lands have potential to impact.
Incorporation of the Fingal groundwater protection scheme	Support the Water Framework Directive in implementing the Eastern River Basin District Management Plan 2009-2015 and the Program of Measures for the Broadmeadow River, and the Fingal Ground Water Protection Scheme.

14.4 Evaluation of Material Amendments to the Draft LAP

Following the elected member's review of the Managers report and the SEA assessment of submissions received, 4 key material amendments were proposed:

1. An additional 16 class primary school within the Mooretown Local Centre.
2. Phasing programme in relation to key infrastructural elements has been amended, with Western Distributor Link Road brought forward and resultant rearrangement of the phasing of land parcels and associated infrastructure. Revised phasing maps were produced and placed on public display, as well as revised text for section 4 on phasing.
3. Commitment to undertake a mid-term review of the LAP by the Planning Authority with a report to be prepared and submitted to the Members before commencement of phase 3. The review shall in particular focus on infrastructural requirements and phasing. The review will be undertaken to ensure assumptions applied to the traffic modelling and analysis undertaken as part of the Transport Network Study by Roughan O'Donovan are valid and remain appropriate. Any amendments arising as a result of the review shall be incorporated as appropriate into the phasing programme or where material shall require a review of the LAP. A mid-term review of the phasing programme in relation to school provision in Mooretown shall be undertaken as part of phase 2 of development. This review shall be undertaken in consultation with the Department of Education and Science and any amendment arising out of this review shall be incorporated within the LAP phasing programme.
4. As part of phase 1 of development there is a requirement that Active Class 1 Open Space, including associated dressing rooms, generated by development of all of Oldtown lands are to be made available for use prior to commencement of the next phase of development.

FTC reviewed the material amendments to the draft LAP. The assessment undertaken identified any amendments that may significantly impact on the environmental objectives. The assessment is contained in a report entitled "Strategic Environmental Assessment Report on Material Alterations to the Draft Oldtown Mooretown Local Area Plan" (22 July 2010). The report was put on public display with the material alterations released by Fingal County Council from the 27 July to the 24 August 2010.

There were no environmental material amendments.

14.5 Evaluation of Amendments to Draft Plan Pre-adoption

Four submissions were received from the second consultation period (National Roads Authority, EPA, Department of Education and Skills and Department of Communications, Energy and natural Resources. Only the EPA and Department of Education and Skills made comment on the material changes with no comment from the other two bodies.

The material amendments to the LAP were accepted without change at a Councillors meeting held on the 11th October 2010. The draft LAP together with the amendments was adopted during the same meeting.

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Appendix 1

Scoping Letter



Mr. Tadhg O'Mahony
Regional Inspectorate
Environmental Protection Agency
Iniscarra
Co. Cork

08 February 2010

Re. Scoping for Strategic Environmental Assessment of proposed Local Area Plans at Oldtown-Mooretown, Swords as required under Planning and Development [Strategic Environmental Assessment] Regulations 2004.

PLANNING DIVISION
Forward Planning Section
P.O. Box 174,
County Hall,
Swords,
Fingal,
Co. Dublin

Dear Mr O' Mahony,

Fingal County Council intends to prepare a Local Area Plan for lands zoned for residential use at Oldtown-Mooretown, Swords, Co. Dublin. The subject site comprises two identifiable blocks of land to the west of Swords, for which 1 LAP will be prepared:

- (i) Oldtown: to the south of Broadmeadow River and north of Rathbeale Road and
- (ii) Mooretown: to the south of Rathbeale Road.

The lands are zoned RS1 *"to provide for new residential communities in accordance with approved local area plans and subject to the provision of the necessary social and physical infrastructure"*.

The subject lands comprise a total of 111.5 hectares. I enclose a map showing the lands outlined in red and also a map of Swords.

The proposed LAP will be in accordance with the following national and county level policy guidance:

1. National Spatial Strategy 2002–2020
2. Transport 21, 2006-2015
3. Delivering Homes, Sustaining Communities, 2007
4. Guidelines for Planning Authorities on Sustainable Residential Development in Urban Areas, and accompanying document Urban Design Manual – A Best Practice Guide, 2009
5. Sustainable Urban Housing: Design Standards for New Apartments Guidelines for Planning Authorities, 2007
6. The Planning System and Flood Risk Management, Guidelines for Planning Authorities, 2009
7. Regional Planning Guidelines for the Greater Dublin Area 2004-2016 and Update Reports
8. Fingal County Development Plan 2005-2011 including Variations

In accordance with the Strategic Environmental Assessment Regulations, Fingal County Council is hereby consulting with the Department of the Environment, Heritage and Local Government in relation to the Scoping of the Environmental Report for the LAP.

The Council is also consulting with the Department of the Environment Heritage and Local Government, the Department of Communications, Energy and Natural

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Resources, OPW (flooding and heritage sections), Eastern Regional Fisheries Board, and Eastern River Basin District.

Screening for Appropriate Assessment is currently being carried out. The Council will consult with the National Parks and Wildlife Service in this regard.

1.0 Overview of Relevant Policy

1.1 Regional Planning Guidelines for the Greater Dublin Area 2004-2016:

The Regional Planning Guidelines (RPG's) for the Greater Dublin Area identify Swords as a 'Metropolitan Consolidation Town' within the 'Metropolitan' area.

Metropolitan Consolidation Towns will be the main growth areas within the Metropolitan area and the RPG's advise that these locations should be developed to a relatively large scale as part of the strategy to consolidate the Metropolitan Area.

Metropolitan Consolidation Towns are:

- Those located close to the City centre;
- Those with good road and public transport connections;
- Those within the population range 40,000 - 100,000.
- Those which function as main attractors for major investment.

1.2 Fingal County Development Plan 2005-2011

The Fingal Development Plan 2005-2011 sets out the planning context for the County. The Development Strategy for Swords as set out in the Development Plan is to promote planned and sustainable development of the County Town by:

- Consolidating existing and future development within well defined town boundaries separated from the agricultural hinterland by designated greenbelt areas.
- Providing for a much expanded civic, cultural, retail, commercial and employment base at a level appropriate for a vibrant major County town.
- Developing high quality public transport links to Dublin City, Dublin Airport and the Greater Dublin Area.
- Promoting the development of high quality living and working environments.

With regard to the Oldtown-Mooretown LAP land at the western boundary of Swords, the Fingal Development Plan 2005-2011 includes a specific objective to preserve views northwards over the LAP lands from the R125 Rathbeale Road (the southern boundary of the lands).

The following objectives on the County Development Plan Maps relate specifically to the Oldtown lands:

- Objective 165: *'No access through Castlevue/Ashton Broc, Swords to new residential development.'*
- Objective 167: *'To protect the archaeological heritage of this site'.* The Development Plan identifies the location of a recorded monument at the southern eastern section of the lands, St. Cronan's Well, and a protected structure just beyond the south eastern boundary, identified as Glasmore Abbey.

1.2.1 Specific County Development Plan Policy Framework relating to the LAP

Landscape Character

The Development Plan classifies the county in terms of landscape character. The LAP lands are located within 2 Designated Landscape Character areas:

- (i) Rolling Hills with Tree Belts
- (ii) Airport and Swords

Development Objectives

- Objective Swords 3: 'To actively promote the early development of the Metro linking the town of Swords with Dublin Airport and Dublin City Centre'.
- Objective Swords 6: 'To promote the early development of a local bus service within the town linking residential areas to each other and to the industrial/employment areas and the town centre'.

Archaeological and built heritage

- Policy HP2: 'To ensure that full consideration is given to the protection of archaeological heritage when undertaking, approving, or authorising development in order to avoid unnecessary conflict between development and the protection of archaeological heritage'.
- Objective HO5: 'To ensure that all significant development proposals affecting sites specified in the Record of Monuments and Places or Zones of Archaeological Potential are referred to the Prescribed Bodies (as set out in the Planning and Development Act 2000) and to have regard to the advice and recommendations of the Prescribed Bodies in relation to undertaking, approving or authorising development'.

Water supply

- Objective WDO1: 'To provide the Swords Augmentation Scheme 800mm pipeline and complete it to the Jordanstown Reservoir'.

Foul and surface water drainage

- Objective WDO15: 'To continue the programme of upgrading and improving the drainage network in the urban areas of Fingal, ie Swords, Blabriggan, Skerries, Rush, Lusk, Donabate and Portrane.

Public Transport

- Policy TP7: 'To prioritise public transport by safeguarding future Metro, other rail and bus routes; promoting and facilitating the provision of new Metro and other rail facilities, rail and bus routes; promoting the provision and improvement of QBCs and bus priority measures (table 6.3) on existing and planned road infrastructure; requiring mobility management plans for new developments and implementing traffic and parking management measures'.

1.2.2 Swords Variation 29 to the Fingal County Development Plan 2005-2011

Swords Variation 29 (adopted 14th July 2008) addresses the integrated development of Swords in terms of landuse and transportation, with specific regard to the arrival of Metro North.

Details of Variation 29, as it relates to Oldtown-Mooretown, are set out hereunder:

- Objective SWORDS 17: To develop a Regional Park (of circa 65 ha) immediately west of Oldtown, and adjoining and ultimately extending into the Broadmeadow River Valley Linear Park. The Park shall serve Swords and its hinterland, and shall comprise active recreational and passive activities, commensurate with the Council's vision for the emerging city of Swords.

- Objective SWORDS 18: To develop a 'green necklace' of open spaces which are linked to each other and to the existing town centre of Swords, as well as to new development areas; thus promoting enhanced physical and visual connections to the Ward River Valley Park and the Broadmeadow River Valley Park from within the development boundary of Swords.
- Objective SWORDS 19: To facilitate and permit off-site provision of Class 1 open space on strategic sites within Swords, where it maximizes the opportunities of Metro North and advances the Council objective to develop a Regional Park (LO A/Swords Objective 17).

Class 1 open space shall be provided off site, by way of (a) direct acquisition of lands within the regional park itself and transfer of same to the Council, (b) payment of a financial contribution (to be identified through a review of the County s.48 Contribution Scheme), or (c) a combination of (a) and (b). Where Class 1 open space is provided off-site, there shall be a requirement on developers to provide a meaningful increase in Class 2 open space above the minimum level of Class 2 required in the County Development Plan. Class 2 open space will be provided, located, designed and constructed to ensure that, notwithstanding the introduction of higher density schemes, high standards of residential amenity shall be maintained within individual schemes (e.g. on-site small children's playgrounds, street furniture such as seating, etc.).

- Objective SWORDS 20: To develop a series of new Neighbourhood Centres, on strategic development areas and undeveloped zoned lands within Oldtown, Fosterstown, Seatown Development Area, Estuary Development Area and Lissenhall Strategic Development Area, in accordance with an approved Local Area Plan for Swords.
- Objective SWORDS 21: To develop a series of District Centres, of appropriate scale and at suitable locations, to be determined and approved within the context of the proposed Swords Local Area Plan, albeit broadly identified as being located on sites within the general land banks of:
 - (i) Lissenhall Strategic Development Area,
 - (ii) Oldtown-Mooretown LAP area (at Mooretown) and
 - (iii) Within the South East Quadrant of Swords.
- Objective SWORDS 22: To develop and augment the local road network to facilitate the optimum and sustainable development of Swords.

Local Road Augmentations Proposed include:

- (a) Oldtown-Mooretown Western Distributor Link Road;**
- (b) Oldtown-Lissenhall Link Road(s);
- (c) Highfield Link Road;
- (d) Seatown Development Area Link Road (Swords Business Park to Mountgorry Roundabout);
- (e) Fosterstown Link Road;

In addition to local improvements already approved within the Development Plan:

- (f) Forest Road Improvement Scheme (ref. County Development Plan Written Statement, Table 6.1, no. 16)
- (g) Airside-Drinan Link Road (ref. County Development Plan Written Statement, Table 6.1, no. 17)

The following changes were made to maps (Swords Map, SW1):

- LO K - To develop Oldtown-Mooretown Western Distributor Link Road, as part of a comprehensive package of local road improvements to facilitate the optimum and sustainable development of West Swords development area, in accordance with an approved LAP. This road must be delivered in tandem with the construction of any new dwellings on these lands, in accordance with the approved phasing arrangements, as outlined in the LAP for the area.
- Rezone GB to RS1 To provide for the rezoning of approximately 17 ha of land from GB to RS1 at Oldtown/Mooretown, thereby extending the development boundary of Swords westwards to provide adequate additional lands to support an improved road and public transport network in west Swords and to support the provision of a mix of uses at this location necessary for the creation of a strong, vibrant and well serviced community, including the Regional Park (Objective SWORDS 17).
- Rezone GB to OS Rezone from 'GB' to 'OS' of approximately 65 ha of agricultural land west of Oldtown and adjoining and ultimately extending into the Broadmeadow River Valley Linear Park.

1.3 Your Swords, An Emerging City, Strategic Vision 2035' (non-statutory document published in June 2008)

In order to facilitate the planning of Metro North within a realistic and proactive long-term physical context, a Strategic Vision for Swords has been developed, and this will be implemented over the next 25 years or so. The Strategic Vision examines how Swords will cater for future growth and will promote a thriving vibrant consolidated major town – an emerging city – with a population of 100,000 and comparable increases in employment and services.

Oldtown-Mooretown is identified in the Strategic Vision document given the scale of development which it can cater for and also given its position as the western development edge of Swords. The development of the lands will contribute to and augment the local road network, as well as provide for additional residential development, with supporting retail and commercial development, as well as school facilities and recreational infrastructure.

1.4 Guidelines for Planning Authorities on Sustainable Residential Development in Urban Areas (May 2009), and accompanying document Urban Design Manual – A Best Practice Guide (May 2009)

The Planning Authority will have regard to the guidelines on Sustainable Residential Development in Urban Areas and accompanying Urban Design Manual in preparing the LAP.

1.5 The Planning System and Flood Risk Management, Guidelines for Planning Authorities (November 2009)

The Planning Authority will have regard to The Planning System and Flood Risk Management, Guidelines for Planning Authorities (November 2009) in preparing the LAP.

2.0 Overview of Oldtown-Mooretown Lands

2.1 Strategic Location and Description of the Locality

The LAP area comprises approximately 111.5 hectares and is located at the western development edge of Swords. The Rathbeale Road (R125) divides the plan lands into two distinct areas, with the lands to the north of the road known as Oldtown (c. 50.4 ha) and to the south known as Mooretown (c 61 ha). The Rathbeale Road links to Swords town centre approx 2 km to the east, and Ashbourne is located approx 10 km to the west. The Broadmeadow River is located north of the Oldtown lands, beyond the LAP boundary.

The lands are located in a transitional zonal area, being between an existing built up area and greenbelt lands. To the west and north of the lands is an area zoned 'GB – 'to protect and provide for a greenbelt to demarcate the urban and rural area and provide for agriculture and amenity in a manner that protects the physical and visual amenity of the area.' Part of the land to the north is zoned 'OS' to preserve and provide for open space and recreational amenities. To the east and south of the LAP lands are existing residential developments, zoned 'RS' – 'to provide for residential development and to protect and improve residential amenity'.

The subject lands are located within a rapidly-developing area in the northwest of Swords. The Swords-Lissenhall DED, in which the lands are located, has grown by 49.6% in the last inter-censal period. The lands are bound to the north by the Broadmeadow River, the west by agricultural lands and the south and east by existing residential housing estates (*including Ashton Broc, Glen Ellan and Applewood areas adjoining the Oldtown lands; and Cianlea, Liosican, Abbeyvale, Berwick and Ormond Estates adjoining Mooretown lands*).

The LAP lands are primarily agricultural in nature. A limited number of individual residences and commercial premise are located on the lands adjoining the Rathbeale Road, and 2 no. temporary school facilities are located north of the Rathbeale Road, at the termination of the Glen Ellan Distributor Road. The temporary schools have been granted planning permission and a permanent structure will be built in due course to the east of the temporary location.

Access to the Mooretown lands is generally restricted to agricultural and individual residential access points only from the Rathbeale Road. Lands at Oldtown are accessible by an extension to a local distributor road known as the Glen Ellan Distributor Road, which traverses this landbank.

The LAP lands area traversed by 3 separate ESB lines and pylons – 110kV traverse the Mooretown lands and 38kV traverse the Oldtown lands.

2.2 Landscape Character and Visual Impact

In terms of topography, the subject lands are gently undulating. There are short-distance views into the Oldtown lands from the public road to the south and from the Rathbeale Road. There are medium-distance views from the site out towards the north and west over the adjacent agricultural lands.

There are short-distance views into the Mooretown lands from an area of public space contained within the housing area immediately to the east, and from the upper levels of houses to the east and to the south. There are partial views out towards the north and west from the site. These are partially interrupted by the network of small hedgerows.

The site character is largely defined by the hard urban edge of the adjoining residential development along the eastern boundary.

2.3 Broadmeadow River: Link to a Designated Nature Conservation Area

The Broadmeadow River, located north of the lands flows into the Broadmeadow (Malahide) estuary, which is a designated SPA, cSAC, pNHA and Ramsar site. It is therefore important that the quality of this river is maintained and that all future development examines surface water issues, and SUDS principles are incorporated within the LAP.

The river and the potential to extend its associated linear park will be an important amenity resource for future residents of this area and development will be well designed so as to ensure clear and direct linkages to this riverside park.

2.4 Broadmeadow River and FEMFRAMS

Fingal County Council in conjunction with the OPW and Meath County Council are currently undertaking a 'Fingal East Meath Flood Risk Assessment and Management Study' (FEMFRAMS). This study (which has not yet been fully completed) has resulted in the production of flood risk maps identifying areas at risk of flooding in relation to the Broadmeadow River.

The LAP will have full regard to the results of the FEMFRAM Study and 'The Planning System and Flood Risk Management Guidelines for Planning Authorities' (November 2009).

2.5 Trees/Hedgerows

The use of existing vegetation on site has value in integrating future development into the existing landscape. The lands at Mooretown, south of the Rathbeale Road, comprise a significant number of trees/hedgerows. Lands at Oldtown, to the north, contain large fields with few subdivisions. Trees and hedgerows will be preserved where it is desirable to do so. This issue will be addressed in the LAP.

2.6 Archaeology

There is one recorded archaeological monument listed in the Record of Monuments and Places (RMP), namely St. Cronan's Holy Well (DU011-018), located within the southeastern corner of the lands. Glasmore Abbey church (DU011-019) is located just beyond the southeastern corner of the plan lands in the adjoining residential development of Cianlea Estate.

Archaeological testing of St. Cronan's Holy Well resulted in the discovery of a *fulacht fiadh*, as well as the location of the holy well. The holy well is putatively of early medieval origin, but no related archaeology identified dates earlier than the late nineteenth/early twentieth century AD. Except for the natural spring itself, there are no remains at the holy well site that predate the nineteenth century AD.

The entire LAP lands were surveyed in detail between the years 2003–2008. This survey work included a desk study, field walkover survey, geophysical survey, monitoring of topsoil stripping and archaeological test trenching. Consultation with the National Monuments Section of the Department of the Environment, Heritage and Local Government took place to seek approval and guidance on the suitability and

acceptability of proposed strategies which were designed to realise the full archaeological potential of the development area.

A significant Early Medieval ecclesiastical complex with burials was discovered immediately north of the Rathbeale Road, during the construction of the Glen Ellen Road extension in 2003. Further archaeological investigation has shown that this complex extends further south across the Rathbeale Road into the townland of Mooretown. The complex is sited at a high point within the LAP lands, with existing views towards the north. The site is entirely subsurface and has no above ground indication. It presents as natural ridges within a greenfield.

In accordance with the recommendations of the National Monuments Section of the Department of the Environment, Heritage and Local Government, a Conservation Plan is being prepared as part of the LAP to address the archaeological discovery at this location.

2.7 Road Network

The main existing roads serving the Oldtown-Mooretown areas are:

- **Rathbeale Road:** The development lands are bisected by the R125 Rathbeale Road that links Swords to Ashbourne and the N2 route corridor. This road is the primary transport corridor through north-western Swords.

There are no public transport facilities along the Rathbeale Road. The major public transport corridor serving Swords is located at the eastern side of the Town, where a Quality Bus Corridor (QBC) is provided along the R132 to Dublin. It is planned that Metro North will follow the R132 corridor. In order to provide high quality public transport services for the Oldtown and Mooretown areas, it will be necessary to construct a spur QBC that will connect West Swords to Swords Main Street and to the Metro North/Swords QBC corridor.

- **Glen Ellen Road extension:** Glen Ellen Road is a 2-lane single carriageway and frontage-free road that has been developed through new residential areas at Applewood and Glen Ellen, bisecting greenfield lands at Oldtown and terminating at an existing temporary school site at the western edge of the LAP lands. This road extends from the Oldtown area eastward to a junction with Balheary Road, and provides a route to the R132 at the Estuary junction that bypasses the Rathbeale Road. The Glen Ellen road as it currently exists has a 7.5 m carriageway, verge, footpath and off road cycletrack.
- **Swords Integrated Traffic Model:** An Integrated Traffic Model has been prepared for Swords as part of the document 'Your Swords An Emerging City Strategic Vision 2035'.

Road network improvements related to the Oldtown-Mooretown area are identified in the model. These will be addressed in more detail in the LAP and any necessary phasing programmes will be established.

3.0 The Purpose of the Local Area Plan

The Oldtown-Mooretown LAP will set out a development strategy for the proper planning and sustainable development of the plan lands, which will address issues relating to:

- Accommodation of phased and integrated growth of Swords within these zoned lands, primarily residential development, with a supporting level of mixed uses at Local Centres/Neighbourhood Centres.
- Provision of Local Centres/Neighbourhood Centres, accommodating a mix of uses, particularly retail and commercial opportunities, as well as residential, to serve the needs of the area.
- Provision of high quality recreational open space and amenity facilities to meet needs of the expanding population in this area and linking in with the strategic open space network for Swords, specifically the proposed Swords Regional Park;
- Increase in community facilities and health care facilities, in particular provision of additional schools to serve existing and future population;
- Enhancement and preservation of existing archaeological sites and increase in appropriate usage and public acknowledgement of such sites, as set out within proposed Conservation Plan.

Overarching issues relating to urban design, identification of character areas, and integration of elements of the existing environment, will all be paramount in ensuring this area has its own unique character and identity, with a range of social as well as physical infrastructure which will ensure it is a desirable place to live, work, and recreate.

The LAP will set establish an overarching permeable and legible network for future development, with access and circulation by all modes of transport, linking the site internally and beyond to the existing town.

3.1 Potential Capacity of LAP lands

The Swords area has experienced exponential growth over the last 10 years from a population of just under 25,000 in 1996 to a population of 34,576 in 2002 and with an estimated population of 40,000 at present.

The capacity of the subject Local Area Plan lands at Oldtown and Mooretown will be considered as part of the Local Area Plan process. A preliminary assessment shows that the subject LAP lands could accommodate in the region of 10,000 or more additional people and 3000-4000 residential units.

Given that the population of the LAP lands is likely to in excess of 10,000 persons or more, Fingal County Council is preparing an Environmental Report, in accordance with Article 14B of the Planning and Development (Strategic Environmental Assessment) Regulations 2004.

The Local Area Plan lands will be developed predominantly for residential use. In addition areas will be reserved as part of LAP process to provide for school and local services (including retail and commercial use) as well as for public open space to serve the future residents of this area. The development of the LAP lands will result in significantly increased traffic demands and movements as well as an increase in the demands for retail, educational, community, health and recreational facilities.

4.0 Environmental Issues Likely to be Considered in the LAP/SEA Process

The following environmental issues are likely to be considered in the preparation of LAP/SEA:

4.1 Population

The population of this area could increase by circa. 10,000 persons. This will result in increased demands for services - education; local retail and community services, as well as physical infrastructure. The LAP process will involve an assessment of the needs of the future population, as well as additional augmentation of existing facilities.

4.2 Archaeology

It is important that known archaeology is protected as part of the development of this area and that the lands archaeological heritage is recognised and promoted by way of a Conservation Plan.

4.3 FEMFRAMS and Strategic Flood Risk Assessment

The implication of FEMFRAMS and a SFRA will be fully incorporated within the LAP strategy and SUDS principles incorporated in the development of the lands.

4.4 Waste Water Treatment

The wastewater treatment works in Swords treats sewage effluent for the agglomeration of Swords. The main contribution to the treatment works is from domestic sources with additional contributions from commercial developments in the Swords area and a number of IPPC licensed industries. The treatment works discharges treated effluent to the Broadmeadow River at the top of the estuary just slightly upstream of the M1 Motorway Bridge. There has been a treatment works in Swords and a discharge to the Broadmeadow River since 1927. Ministerial approval was granted in 1998 for the upgrading of the existing treatment works in two phases following the submission of an Environmental Impact Statement. Phase 1 of the upgrade has expanded the works to cater for a population equivalent (p.e.) of 60,000 and Phase 2 would add a further 30,000 p.e. to the capacity of the works.

At present, Swords WWTP is operating at its design capacity of 60,000 p.e. Fingal County Council intends to upgrade the plant to 90,000 p.e. in the medium term and are investigating the possibility of expanding to 140,000 in the long term. The Council have applied for a discharge licence to operate the existing plant and an Appropriate Assessment was carried out in parallel with this process. The assessment found that there is no significant impact caused by the discharge from the Swords WWTP.

Fingal County Council Water Services have identified that although Swords WWTP is operating at its capacity to treat raw sewerage, there is hydraulic capacity at the plant to deal with approximately 10,000 p.e. hydraulic load.

The Oldtown-Mooretown LAP will examine capacity requirements necessary to develop the lands and development will only be allowed where capacity is available.

All foul infrastructure will be designed and constructed in accordance with the Greater Dublin Regional Code of Practice for Drainage works and should comply with the Greater Dublin Strategic Drainage Study (GDSDS).

4.5 Surface water

The proposed development will result in increased impact on surface water runoff, which could impact on Broadmeadow river. The LAP lands shall be required to be developed in accordance with SUDS principles and a SUDS strategy will be developed as part of the LAP.

4.6 Landscape and Biodiversity

The proposed LAP will inevitably impact on the extent of the existing biodiversity of this area. Any future development will assess and (where possible) incorporate existing strong tree and hedgerow groupings, which will be supplemented by a landscaping plan for any proposed development. Given the limited amount of natural trees and hedgerows on the subject lands it is not envisaged that any natural habitat of significance will be impacted on.

4.7 Traffic

There will be increased traffic demands resulting from the scale of the proposed development. As part of the LAP process the main elements of the road network will be determined and development will only be permitted in tandem with improvements to the road network and public transport connections.

5.0 Consultation required under Section 20 of the 2000 Planning and Development Act:

Consultation required under section 20 of the 2000 Planning and Development Act has commenced. A public newspaper notice dated 2nd February 2010 advertised the fact that Fingal intends to prepare a Local Area Plan for the lands at Oldtown-Mooretown and invited the public to make submissions on or before 2nd March 2010. A copy of the newspaper notice is attached to this letter.

6.0 Environmental Report

As part of the preparation of the proposed Local Area Plan for Oldtown-Mooretown, Fingal County Council will prepare an Environmental Report of the likely significant effects on the environment of implementing the Plans.

The Environmental Report is required to include the information that may reasonably be required, taking into account the following:

- i) current knowledge and methods of assessment;
- ii) the contents and level of detail in the Plan.
- iii) the stage of the Plan in the decision making process and
- iv) The extent to which certain matters are more appropriately assessed at different levels in the decision-making process in order to avoid duplication of environmental assessment.

A submission or observation from Environmental Protection Agency in relation to the scope and level of detail of the information to be included in the Environmental Report may be made to Fingal County Council by the 8th March.

Yours Sincerely,

Una O'Neill
Executive Planner

Appendix 2

Habitats Directive Appropriate Assessment Screening Report





NATURA IMPACT STATEMENT OF THE OLDTOWN MOORETOWN LOCAL AREA PLAN 2010



NOVEMBER 2010



NATURA IMPACT STATEMENT OF THE OLDTOWN MOORETOWN LOCAL AREA PLAN 2010

FINGAL COUNTY COUNCIL

User is Responsible for Checking the Revision Status of This Document

Rev. Nr.	Description of Changes	Prepared by:	Checked by:	Approved by:	Date
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Client: Fingal County Council

Keywords: Oldtown Mooretown Local Area Plan, Natura Impact Assessment, Article 6 of the Habitats Directive, Natura 2000 sites, Screening report

Abstract: This document comprises the Natura Impact Assessment of the Oldtown Mooretown Local Area Plan, 2010. The assessment is required under Articles 6 (3) and (4) of the Habitats Directive for any project or plan that may give rise to significant effects on a Natura 2000 site. This assessment follows the methodological guidelines set out in the document 'Assessment of plans and projects significantly affecting Natura 2000 sites' (2001) and guidance issued by NPWS 'Appropriate Assessment of Plans and Projects in Ireland -Guidance for Planning Authorities' (2009).

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1. INTRODUCTION

1.1. Background

Under the E.U. Birds (2009/147/EC) and Habitats (92/43/EEC) Directives, member states are required to designate areas in order to protect priority habitats and species. These sites are known as Special Protection Areas (SPA) and Special Areas of Conservation (SAC) respectively. Collectively, these sites are referred to as Natura 2000 sites. Any plan or project that is likely to have a potential impact on a Natura 2000 site must undergo an assessment to determine the potential impacts, and where necessary, devise appropriate measures to prevent or minimise any such impacts.

The requirements for an Appropriate Assessment are set out in the E.U. Habitats Directive. Articles 6(3) and 6(4) of this Directive state:

3. Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to Appropriate Assessment of its implications for the site in view of the site's conservation objectives. In the light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public.
4. If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature, the Member State shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted.

Where the site concerned hosts a priority natural habitat type and/or a priority species, the only considerations which may be raised are those relating to human health or public safety, to beneficial consequences of primary importance for the environment or, further to an opinion from the Commission, to other imperative reasons of overriding public interest.

This report comprises the Natura Impact Statement of the Oldtown Mooretown Local Area Plan (LAP). The report has been prepared in consideration of the E.U.'s guidance document 'Assessment of plans and projects significantly affecting Natura 2000 sites, Methodological guidance on the provisions of Articles 6(3) and 6(4) of the Habitats Directive 92/43/EEC' (2001) and the recently published National Parks and Wildlife Service (NPWS) document 'Appropriate Assessment of Plans and Projects in Ireland - Guidance for Planning Authorities' (2009).

1.2. Oldtown Mooretown LAP

Fingal County Council has prepared a LAP for the Oldtown Mooretown area. The Oldtown and Mooretown LAP area comprises 111.5 ha of undeveloped lands at the western development boundary of Swords.

The purpose of the LAP is to provide the optimal future development strategy for these lands in order to ensure the proper planning and sustainable development of this area. The LAP clearly establishes the parameters for the future development of the LAP lands.

This assessment was conducted on the draft LAP released for the first consultation period held in April 2010 and appended to the SEA environmental report as Appendix 2. The proposed amendments released for a second consultation period (July to August 2010) were also assessed based on the assessment methodology. This report was updated for the adopted LAP based on the initial screening report and the assessments of amendments proposed to the draft LAP (Table 1.1) and adopted in October 2010.

Table 1.1: Amendments Proposed to the LAP

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| <ol style="list-style-type: none">1. An additional 16 class primary school within the Mooretown Local Centre.2. Phasing programme in relation to key infrastructural elements has been amended, with Western Distributor Link Road brought forward and resultant rearrangement of the phasing of land parcels and associated infrastructure. Revised phasing maps were produced and placed on public display, as well as revised text for section 4 on phasing.3. Commitment to undertake a mid-term review of the LAP by the Planning Authority with a report to be prepared and submitted to the Members before commencement of phase 3. The review shall in particular focus on infrastructural requirements and phasing. The review will be undertaken to ensure assumptions applied to the traffic modelling and analysis undertaken as part of the Transport Network Study by Roughan O'Donovan are valid and remain appropriate. Any amendments arising as a result of the review shall be incorporated as appropriate into the phasing programme or where material shall require a review of the LAP. A mid-term review of the phasing programme in relation to school provision in Mooretown shall be undertaken as part of phase 2 of development. This review shall be undertaken in consultation with the Department of Education and Science and any amendment arising out of this review shall be incorporated within the LAP phasing programme.4. As part of phase 1 of development there is a requirement that Active Class 1 Open Space, including associated changing facilities, generated by development of all of Oldtown lands are to be made available for use prior to commencement of the next phase of development. |
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2. METHODOLOGY FOR APPROPRIATE ASSESSMENT

This assessment follows the guidance set out in the document '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' (2001). This document is referred to as the 'Guidance Document' in this report. These guidelines are read in conjunction with the document 'Managing Natura 2000 sites: The provisions of Article 6 of the 'Habitats Directive 92/43/EEC' (2000). In 2009, NPWS published guidance for the Appropriate Assessment process in Ireland. This document follows the E.U. published guidance with additional information in relation to plans and projects in Ireland. This assessment has taken the NPWS guidance into account.

The assessment requirements of Article 6 are generally dealt with in a stage by stage approach. The stages outlined by the NPWS guidance document are:

- Stage 1: Screening

The process which identifies the likely impacts upon a Natura 2000 site of a project or plan, either alone or in combination with other projects or plans, and considers whether these impacts are likely to be significant.

- Stage 2: Appropriate Assessment

The consideration of the impact on the integrity of the Natura 2000 site of the project or plan, either alone or in combination with other projects or plans, with respect to the site's structure and function and its conservation objectives. Additionally, where there are adverse impacts, an assessment of the potential mitigation of those impacts.

- Stage 3: Assessment of alternative solutions

The process which examines alternative ways of achieving the objectives of the project or plan that avoid adverse impacts on the integrity of the Natura 2000 site.

- Stage 4: Assessment where adverse impacts remain

An assessment of compensatory measures where, in the light of an assessment of Imperative Reasons of Overriding Public Interest (IROPI), it is deemed that the project or plan should proceed.

Each stage determines whether a further stage in the process is required. If, for example, the conclusions at the end of Stage One are that there will be no significant impacts on the Natura 2000 site, there is no requirement to proceed further. It is best practice, however, to complete a 'finding of no significant effects' report. The relationship of the 4 stages of this assessment is illustrated in the NPWS guidance document.

This report covers Stage 1 (screening) only as the proposed LAP is not expected to have significant adverse impacts on the integrity of any Natura 2000 site.

Throughout this assessment, those paragraphs in *italics* refer to specific instructions contained in the guidance document.

3. STAGE ONE -SCREENING

3.1. Brief Description of the LAP

The LAP area comprises approximately 111.5 hectares and is located at the western development edge of Swords. The Rathbeale Road (R125) divides the plan lands into two distinct areas, with the lands to the north of the road known as Oldtown (c. 50.4 ha) and to the south known as Mooretown (c. 61 ha). The Rathbeale Road links to Swords town centre approx 2 km to the east, and Ashbourne is located approx 10 km to the west. The Broadmeadow River is located north of the Oldtown lands, beyond the LAP boundary.

The lands are located in a transitional zonal area, being between an existing built up area and agricultural lands. To the west of Mooretown the lands are zoned 'GB' – 'to protect and provide for a greenbelt to demarcate the urban and rural area and provide for agriculture and amenity in a manner that protects the physical and visual amenity of the area'. To the west and north of Oldtown, the lands are zoned 'OS' – 'to preserve and provide for open space and recreational amenities', with the OS lands to the west identified for Swords Regional Park and OS lands to north for Broadmeadow Linear Park. To the east and south of the LAP lands are existing residential developments, zoned 'RS' – 'to provide for residential development and to protect and improve residential amenity'.

A Swords Variation was adopted in July 2008 which included zoning changes and proposals for the Oldtown-Mooretown Lands. The following changes were made to the Swords Map, SW1:

LO K - To develop Oldtown-Mooretown Western Distributor Link Road, as part of a comprehensive package of local road improvements to facilitate the optimum and sustainable development of West Swords development area, in accordance with an approved LAP. This road must be delivered in tandem with the construction of any new dwellings on these lands, in accordance with the approved phasing arrangements, as outlined in the LAP for the area.

Rezone GB to RS1 To provide for the rezoning of approximately 17 ha of land from GB to RS1 at Oldtown/Mooretown, thereby extending the development boundary of Swords westwards to provide adequate additional lands to support an improved road and public transport network in west Swords and to support the provision of a mix of uses at this location necessary for the creation of a strong, vibrant and well serviced community, including the Regional Park (Objective SWORDS 17).

Rezone GB to OS Rezone from 'GB' to 'OS' of approximately 65 ha of agricultural land west of Oldtown and adjoining and ultimately extending into the Broadmeadow River Valley Linear Park.

It is estimated that the Local Area Plan will facilitate approx. 3,400 residential units (1,600 at Oldtown and 1,800 at Mooretown), equating to an approximate new population in the region of 10,000 on the west side of Swords. This population will be supported by a range of community services, open space and physical infrastructure, which will be developed in tandem with the growth of the area.

3.1.1. Key Elements of the LAP

Key elements within the LAP include:

- Development of a number of new roads/road links – in particular provision of the Western Distributor Link Road to link in with the future Inner Ward River Valley Crossing.
- To provide for a mix of residential units. The total number of residential units across the lands will be approximately 3,400 units, which could result in a population of approximately 10,000.
- Development of 2 Local Centres, providing for a mix of uses, including retail and community services to serve the plan lands
- Promote and implement sustainable urban drainage solutions within the LAP lands.
- Biodiversity: To incorporate existing trees and hedgerows within green corridors and develop strategic planting; and protect and manage the Broadmeadow River watercourse and existing streams within the plan lands.

- Archaeological Heritage. Protect and preserve in situ the significant subsurface ecclesiastical remains identified in the Oldtown and Mooretown lands, in accordance with the Oldtown-Mooretown Conservation and Management Plan.
- Open space. Develop the lands zoned Open Space within the Swords Regional Park, extend the Broadmeadow River Valley Park, develop a network of green corridors within the LAP lands and ensure a high level of connectivity and accessibility through the incorporation of key green cycle and pedestrian routes.
- Provision of a quality bus route to transport those living in the west of Swords into the Town Centre;
- In order to satisfactorily meet the future school needs of the northwest Swords area, 3 primary schools and 1 secondary school are required.
- The HSE will require one Primary Care Centre for a population of 10,000. It is an objective of this LAP to facilitate this centre within the Mooretown Local Centre
- Development of the LAP lands will only be allowed when the Swords Waste Water Treatment Plant has been upgraded and the foul drainage network improvements have been undertaken.
- All foul infrastructure will be designed and constructed in accordance with the Greater Dublin Regional Code of Practice for Drainage works and should comply with the Greater Dublin Strategic Drainage Study (GSDSDS).

3.2. Measures included in the LAP to ameliorate potential impacts

3.2.1. Storm Water Management

Fingal County Council employs the Greater Dublin Strategic Drainage Study (GSDSDS), a policy document that aims to minimise the impact of urban drainage systems. Within the GSDSDS, one of the objectives is to ensure that all new developments use a storm water management plan that will replicate the run-off from a Greenfield site. The Oldtown Mooretown LAP has been prepared in line with GSDSDS.

As part of the development of the Oldtown / Mooretown LAP lands, all surface water design and construction works shall be based on the SuDS design philosophy, incorporating an integrated approach to the management of runoff from each catchment and neighbourhood so that a universal and consistent approach to provision of an overall functional solution to surface water management is adopted throughout the LAP lands.

All development within the LAP area shall comply with the SuDS Strategy (Moynans, March 2010) which has been developed as a background document to this LAP. Specifically the following are the minimum requirements which must be incorporated into each development:

Water Quality

All development must provide suitable measures to ensure that the quality of runoff from roads, paved areas and roofs is improved by incorporating the following:

- Retention ponds;
- green roofs;
- wetlands;
- rainwater harvesting;
- filter drains;
- infiltration trenches;
- permeable paving;
- detention ponds; and
- swales.

Each section and phase of the development within the LAP lands must demonstrate to the satisfaction of Fingal County Council that water quality improvement measures are adequately provided.

In addition, a wetland area is proposed for the regional park along the Broadmeadow River to further improve water quality and to provide for a water based amenity area incorporating biodiversity.

Water Quantity

Surface water attenuation will be provided generally in locations identified in the SuDS Strategy. Design of surface water attenuation shall be based on the requirements of the GDSDS. Particular reference shall be made to Volume 2 Appendix E which provides guidance on attenuation design.

All development areas must provide the following:

- Runoff from roof areas is to be discharged to soakaways where ground conditions are deemed suitable. All planning applications for development within the LAP lands must include percolation tests, carried out in accordance with BRE365. Percolation tests are to be provided at a minimum rate of 1 per hectare.
- All commercial and institutional development within the LAP must include rain water harvesting for each unit within the proposed development.
- Permeable surfacing shall be utilised where it is considered suitable following testing of the sub-grade.
- Storage of storm water in underground tanks will not be permitted

A Surface Water Management Train approach is to be adopted in the design of the proposed surface water drainage regime for the subject lands by utilising suitable SuDS mechanisms in providing Source, Site and Regional Control.

The surface water discharge from the development shall replicate existing Greenfield runoff rates by limiting flow by means of flow control devices constructed to the requirements of Fingal County Council.

All development within the LAP will be designed to tie in with the outfall arrangements set out in the SuDS Strategy for Oldtown-Mooretown.

[3.2.2. Strategic Flood Risk Assessment and Fingal East Meath Flood Risk Assessment and Management Study \(FEM FRAMS\)](#)

Fingal County Council along with project partners Meath County Council and the Office of Public Works (OPW) is currently carrying out FEM FRAMS, which is a catchment-based flood risk assessment and management study of rivers and streams within the county area. The Broadmeadow River runs along the northern boundary of the site with several tributaries running through the development lands. Draft flood risk maps have been produced for this river for the 1% (1 in 100) and 0.1% (1 in 1000) probability of flooding.

As part of any future application on these lands, the results of FEM FRAMS shall be adhered to. No development shall be permitted in the 1 in 100 year flood probability, as defined by the FEM FRAMS.

A Strategic Flood Risk Assessment of the plan lands has also been undertaken to ensure no negative impact on the Broadmeadow River.

[3.2.3. Foul drainage](#)

Foul wastewater generated by the developments within the LAP area will be treated at the existing Swords wastewater treatment plant (WWTP). At present, the Swords WWTP is operating at its design capacity of 60,000 population equivalent (p.e). Fingal County Council intends to upgrade the plant to 90,000 p.e. in the medium term and are investigating the possibility of expanding to 140,000 in the long term. The Council has applied for a discharge licence to operate the existing plant and an Appropriate Assessment was carried out in parallel with this process. The assessment found that there is no significant impact caused by the discharge from the Swords WWTP on any Natura 2000 site. Any increase in the capacity of the WWTP will require a further Appropriate Assessment.

All foul infrastructure will be designed and constructed in accordance with the Greater Dublin Regional Code of Practice for Drainage works and will comply with the Greater Dublin Strategic Drainage Study (GDSDS).

No residential development shall take place within the LAP lands until such time as the Swords WWTP has been upgraded, is operational and the required network upgrades to facilitate development are completed. To comply with this, a phasing programme for development of the LAP area is to be drawn up so that residential development can only take place in relation to the phased development of the required infrastructure, including foul water services.

3.3. Existing environment at the LAP lands

The LAP lands are primarily agricultural in nature. The lands at Mooretown, south of the Rathbeale Road, comprise a significant number of trees/hedgerows. Lands at Oldtown, to the north, contain large fields with few subdivisions. The Broadmeadow River lies to the north of the LAP boundary. The Environment Protection Agency (EPA) website shows that the nearest water quality monitoring station downstream of the site has a water quality (Q rating) value of 3.

A limited number of individual residences and commercial premises are located on the lands adjoining the Rathbeale Road, and 2 no. temporary school facilities are located north of the Rathbeale Road, at the termination of the Glen Ellan Distributor Road Extension. The temporary schools have been granted planning permission and a permanent structure will be built in due course to the east of the temporary location.

Access to the Mooretown lands is generally restricted to agricultural and individual residential access points only from the Rathbeale Road. Lands at Oldtown are accessible by an extension to a local distributor road known as the Glen Ellan Distributor Road, which traverses this landbank.

3.4. Brief description of the Natura 2000 sites

The LAP lands do not include any area that has been designated as a Natura 2000 site (i.e. SAC or SPA). Neither does the LAP boundary lie adjacent to a Natura 2000 site. The Broadmeadow River lies to the north of the LAP lands and flows into the Broadmeadow (Malahide) estuary, which is a designated SPA, cSAC, pNHA and Ramsar site. In line with NPWS guidance, the Natura 2000 sites that occur within a 15 km radius of the LAP land boundary are given in Table 3.1 below. Figure 3.1 also shows these sites in relation to the LAP lands boundary.

A total of 17 Natura 2000 sites lie within 15 km of the LAP boundary. The SAC's are:

- Malahide Estuary (site code 000205)
- Rogerstown Estuary (000208)
- Baldoyle Bay (000199)
- North Dublin Bay (000206)
- South Dublin Bay (000210)
- Howth Head (000202)
- Ireland's Eye (002193)
- Lambay Island (000204)

The SPA's are:

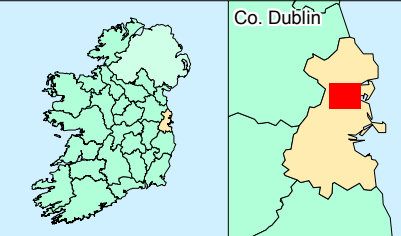
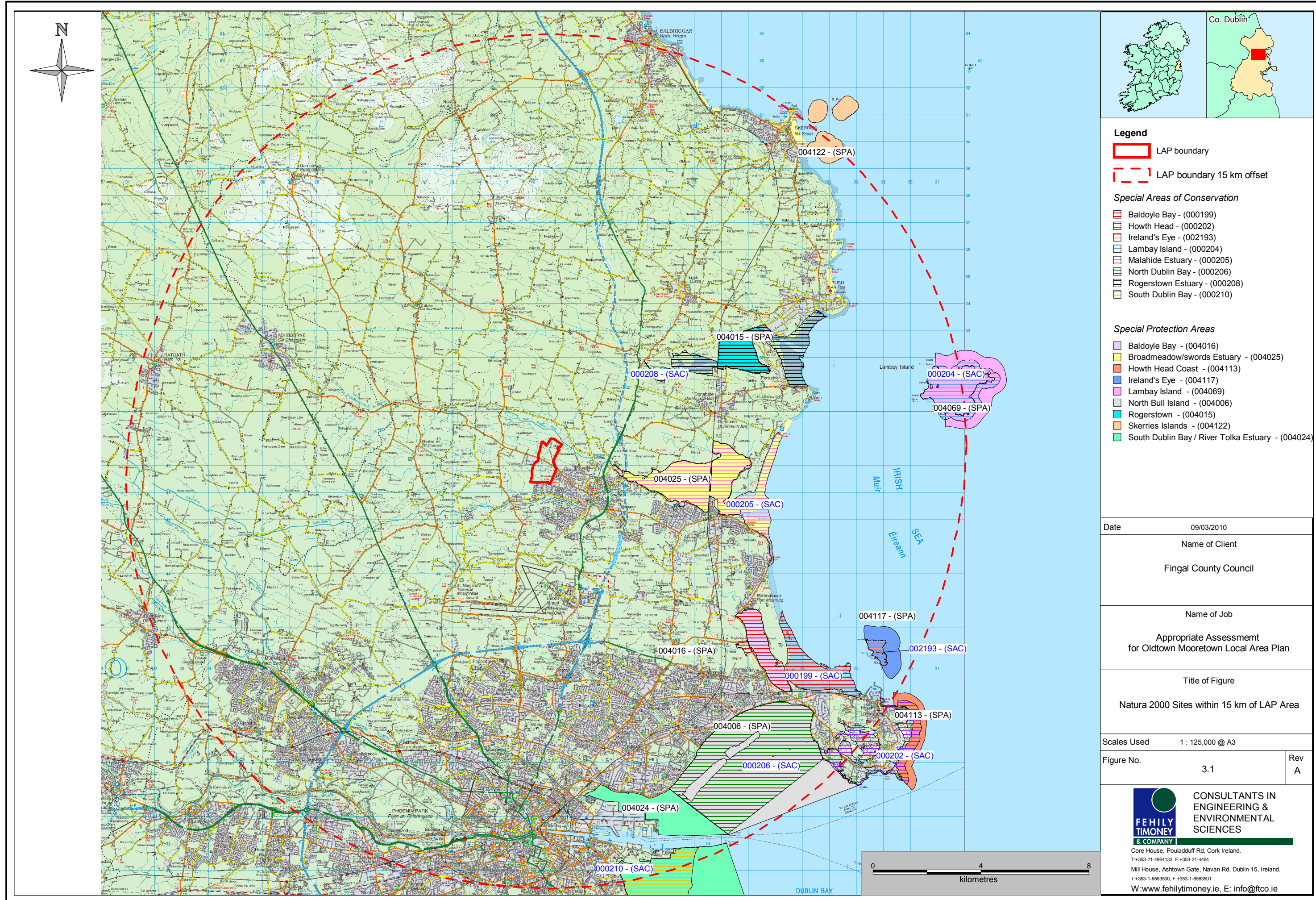
- Broadmeadow/Swords Estuary (site code 004025)
- Rogerstown Estuary (004015)
- Baldoyle Bay (004016)
- North Bull Island (004006)
- South Dublin Bay and River Tolka Estuary (004024)
- Ireland's Eye (004117)
- Lambay Island (004069)
- Howth Head Coast (004113)
- Skerries Islands (004122)

Table 3.1: Natura 2000 sites within 15 km of the LAP boundary


Designated Site	Site Code	Reason for designation	Minimum Distance from site (km)
Malahide Estuary SAC	000205	This site is a fine example of an estuarine system with all the main habitats represented. The site is important ornithologically, with a population of Brent Geese of international significance.	2.0
Broadmeadow/Swords Estuary SPA	004025	Broadmeadow/Swords Estuary SPA is a fine example of an estuarine system, providing both feeding and roosting areas for a range of wintering waterfowl. The lagoonal nature of the inner estuary is of particular value as it increases the diversity of birds which occur. The site is of high conservation importance, with an internationally important population of Brent Goose and nationally important populations of a further 12 species. Three of the species which occur regularly (Golden Plover, Bar-tailed Godwit and Ruff) are listed on Annex I of the E.U. Birds Directive.	2.4
Rogerstown Estuary SAC & SPA	000208 & 004015	This site is a good example of an estuarine system, with all typical habitats represented, including several listed on Annex I of the EU Habitats Directive. Rogerstown is an internationally important waterfowl site and has been a breeding site for Little Terns. The presence within the site of three rare plant species adds to its importance. It is an important link in the chain of estuaries on the east coast. It supports an internationally important population of Brent Goose and a further 14 species in numbers of national importance.	3.8 SAC 6.4 SPA
Baldoyle Bay SPA & SAC	004016 & 000199	Baldoyle Bay is a fine example of an estuarine system. It contains four habitats listed on Annex I of the EU Habitats Directive and has two legally protected plant species. The site is also an important bird area and supports internationally important numbers of Brent Geese and nationally important numbers of six other species including two Annex I Birds Directive species.	8.4
North Bull Island SPA	004006	The North Bull Island SPA is an excellent example of an estuarine complex and is one of the top sites in Ireland for wintering waterfowl. It is of international importance on account of both the total number of waterfowl and the individual populations of Light-bellied Brent Goose, Black-tailed Godwit and Bar-tailed Godwit that use it. Also of significance is the regular presence of several species that are listed on Annex I of the E.U. Birds Directive, notably Golden Plover and Bar-tailed Godwit, but also Ruff and Short-eared Owl	11.0

Designated Site	Site Code	Reason for designation	Minimum Distance from site (km)
North Dublin Bay SAC	000206	This site is an excellent example of a coastal site with all the main habitats represented. The holds good examples of ten habitats that are listed on Annex I of the E.U. Habitats Directive; one of these is listed with priority status. Several of the wintering bird species have populations of international importance, while some of the invertebrates are of national importance. The site contains a numbers of rare and scarce plants including some which are legally protected. Its proximity to the capital city makes North Dublin Bay an excellent site for educational studies and research.	11.0
South Dublin Bay and River Tolka Estuary SPA	004024	The South Dublin Bay and River Tolka Estuary SPA is of international importance for Light-bellied Brent Goose and of national importance for nine other waterfowl species. As an autumn tern roost, it is also of international importance. Furthermore, the site supports a nationally important colony of Common Tern. All of the tern species using the site are listed on Annex I of the E.U. Birds Directive, as are Bar-tailed Godwit and Mediterranean Gull.	11.3
Ireland's Eye SAC & SPA	002193 & 004117	This uninhabited marine island has a well developed maritime flora, with two habitats (sea cliffs and shingle) listed on Annex II of the EU Habitats Directive. The island is of high ornithological importance, with seven seabird species having populations of national importance. The regular presence of a breeding pair of Peregrine Falcon is also of note.	13
Lambay Island SAC & SPA	000204 & 004069	Lambay is an internationally important seabird colony and one of the top seabird sites in Ireland. Four species have populations of international importance and a further five have populations of national importance. In addition to the seabirds, it also supports a nationally important population of Greylag Goose. The site is also of conservation for the population of Grey Seal, a species that is listed on Annex II of the E.U. Habitats Directive and has good examples of vegetated sea cliffs, a habitat listed on Annex I of the EU Habitats Directive,	13.4
Howth Head SAC	000202	Howth Head displays a fine range of natural habitats, including two Annex I habitats, within surprisingly close proximity to Dublin city. The site is also of scientific importance for its seabird colonies, invertebrates and lichens. It also supports populations of at least two legally protected plant species and several other scarce plants.	14

Designated Site	Site Code	Reason for designation	Minimum Distance from site (km)
Skerries Islands SPA	004122	The Skerries Islands SPA is of high ornithological importance for both breeding seabirds and wintering waterfowl, with six species having populations of National Importance. In addition there is an internationally important population of Brent Goose. Golden Plover and Short-eared Owl, EU Birds Directive Annex I species, occur regularly in winter.	14.1
South Dublin Bay SAC	000210	This site is a fine example of a coastal system with extensive sand and mudflats, a habitat listed on Annex I of the E.U. Habitats Directive. South Dublin Bay is also an internationally important bird site.	14.2
Howth Head Coast SPA	004113	This site is of high ornithological importance, with four seabird species having populations of national importance. It is also a traditional nesting site for Peregrine Falcon.	14.9



- Legend**
- LAP boundary
 - LAP boundary 15 km offset
- Special Areas of Conservation**
- Baldoye Bay - (000199)
 - Howth Head - (000202)
 - Ireland's Eye - (002193)
 - Lambay Island - (000204)
 - Malahide Estuary - (000205)
 - North Dublin Bay - (000206)
 - Rogerstown Estuary - (000208)
 - South Dublin Bay - (000210)
- Special Protection Areas**
- Baldoye Bay - (004016)
 - Broadmeadow/swords Estuary - (004025)
 - Howth Head Coast - (004113)
 - Ireland's Eye - (004117)
 - Lambay Island - (004069)
 - North Bull Island - (004006)
 - Rogerstown - (004015)
 - Skerries Islands - (004122)
 - South Dublin Bay / River Tolka Estuary - (004024)

Date	09/03/2010	
Name of Client	Fingal County Council	
Name of Job	Appropriate Assessment for Oldtown Mooretown Local Area Plan	
Title of Figure	Natura 2000 Sites within 15 km of LAP Area	
Scales Used	1 : 125,000 @ A3	
Figure No.	3.1	Rev A
 CONSULTANTS IN ENGINEERING & ENVIRONMENTAL SCIENCES		
Core House, Pouladuff Rd, Cork Ireland. T:+353-21-4964133, F:+353-21-4464 Mill House, Ashtown Gate, Navan Rd, Dublin 15, Ireland. T:+353-1-6583500, F:+353-1-6583501 W:www.fehilytimoney.ie, E: info@ftco.ie		

3.5. Assessment Criteria

3.5.1. Description of the elements of the project likely to give rise to impacts on the Natura 2000 site

Describe the individual elements of the project (either alone or in combination with other plans or projects) likely to give rise to impacts on the Natura 2000 site.

The Oldtown-Mooretown LAP will set out a development strategy for the proper planning and sustainable development of the plan lands, which will address issues relating to:

- Phased and integrated development of LAP lands, primarily for residential use, with a supporting level of mixed uses to serve the needs of the area and support the development of a sustainable community;
- Creation of a permeable and legible movement network for all modes of transport linking the site internally and with the surrounding area;
- Provision of high quality recreational open space and amenity facilities to meet needs of the expanding population in this area;
- Increase in community and health care facilities, in particular provision of additional schools;
- Enhancement and preservation of existing archaeological sites and increase in appropriate usage and public acknowledgement of such sites;
- Enhancement and protection of existing environmental features within the plan lands and Broadmeadow Linear Park north of the plan lands.

It is to be noted that while the LAP sets out aims, policies and objectives to promote the sustainable development of Oldtown Mooretown area, it does not set out any specific development projects. However it does put forward that a new Western Distributor Link Road is to be constructed to facilitate the development of the LAP lands.

The LAP further allows for a total number of residential units across the lands of approximately 3,400 units, which could result in a population of approximately 10,000. The LAP recognises that the existing Swords WWTP will require upgrading in order to allow for this level of development and that development will not take place until sufficient capacity exists in the WWTP.

Whilst no Natura 2000 site occurs within the LAP lands or lies adjacent to the LAP boundary, the LAP does recognise that the Broadmeadow River is located north of the lands. This river flows into the Broadmeadow (Malahide) estuary, which is a designated SPA and cSAC. It is therefore important that the quality of this river is maintained and that all future development examines surface water issues, and that SUDS principles are incorporated.

3.5.2. Description of the likely impacts of the project on Natura 2000 sites

Describe any likely direct, indirect or secondary impacts of the project (either alone or in combination with other plans or projects) on the Natura 2000 site by virtue of:

Likely Impacts of the Plan on the Natura 2000 site by Virtue of:

Size and scale

The total area of land covered by the LAP boundary is approximately 112 ha. There are no Natura 2000 sites within the LAP boundary or adjacent to the LAP boundary. The nearest Natura 2000 sites are the Malahide Estuary SAC and Broadmeadow Swords Estuary SPA, approximately 2 and 2.4 km downstream of the LAP lands. There will be no direct impact on any Natura 2000 site as a result of this LAP in terms of size and scale.

Land-take

There are no Natura 2000 sites within the LAP boundary or adjacent to the LAP boundary. The nearest Natura 2000 sites are the Malahide Estuary SAC and Broadmeadow Swords Estuary SPA, some 2 and 2.4 km downstream of the LAP lands. It is considered that there will be no significant impacts on any Natura 2000 site in terms of land-take as a result of the LAP.

Distance from Natura 2000 site or key features of the site

There are no Natura 2000 sites within or adjacent to the LAP boundary. The nearest designated sites are the Malahide Estuary SAC and Broadmeadow Swords Estuary SPA, approximately 2 and 2.4 km downstream. There are no other Natura 2000 sites within 3 km of the LAP land and no other sites downstream.

Resource requirements (water abstraction etc)

Not possible to reliably estimate at this time. The LAP lands are within the district served by the reservoir in Ballycoolin. Any future increase in water requirements and water supply will need to be assessed as detail on the requirements becomes available. If any proposed increase in water supply is thought to have the potential to impact on a Natura 2000 site, then it will require an Appropriate Assessment.

Likely Impacts of the Plan on the Natura 2000 site by Virtue of:*Emission (disposal to land, water or air)*

The waste water treatment works at Spittal Hill in Swords treats sewage effluent for the agglomeration of Swords. The treatment works discharges treated effluent to the Broadmeadow River at the top of the estuary just slightly upstream of the M1 Motorway Bridge. Ministerial approval was granted in 1998 for the upgrading of the existing treatment works in two phases following the submission of an Environmental Impact Statement. Phase 1 of the upgrade has expanded the works to cater for a 60,000 p.e. and Phase 2 would add a further 30,000 p.e. to the capacity of the works.

At present, the Swords WWTP is operating at its design capacity of 60,000 p.e. Fingal County Council intends to upgrade the plant to 90,000 p.e. in the medium term and is investigating the possibility of expanding to 140,000 in the long term. The Council has applied for a discharge licence to operate the existing plant and an Appropriate Assessment was carried out in parallel with this process. The assessment found that there is no significant impact caused by the discharge from the Swords WWTP on any Natura 2000 site. Any increase in the capacity of the WWTP will require a further Appropriate Assessment.

Development of the LAP lands will only be allowed where capacity is available.

All foul infrastructure will be designed and constructed in accordance with the Greater Dublin Regional Code of Practice for Drainage works and should comply with the Greater Dublin Strategic Drainage Study (GSDSDS).

The measures included in the plan in relation to emissions ensure that there will be no impacts on Natura 2000 sites.

Excavation requirements

At the planning stage, detailed proposals are not available but given that no Natura site occurs within the LAP boundary, it is considered that there will be no impact arising as a result of excavation requirements.

Transportation requirements

In order to facilitate development of the LAP lands, a tiered and phased approach to the improvement of the road network is required. The following elements are necessary:

- Development of a number of new roads/road links – in particular provision of the Western Distributor Link Road and the Inner Ward River Valley Crossing;

- Enhancement of existing junctions;
- Redesign of Glen Ellan Road and
- Design of Mooretown Main Street
- Provision of a quality bus route to transport those living in the west of Swords into the Town Centre;
- Provision of pedestrian and cyclist networks, associated with green corridors both within and into adjoining areas.

No details are available on any of these schemes at this Plan stage. However, given that no Natura 2000 site occurs within the LAP boundary, these proposals are considered to have no impact on any Natura 2000 site.

Duration of construction, operation, decommissioning etc.

Not possible to reliably assess at this time. However, given that no Natura 2000 site occurs within the LAP boundary, it is considered there will be no impact on any Natura 2000 site.

Other

Not possible to reliably assess at this time. However, given that no Natura 2000 site occurs within the LAP boundary, it is considered there will be no impact on any Natura 2000 site

3.5.3. [Description of the likely changes to the site](#)

Describe any Likely Changes to the Site Arising as a Result of:

Reduction of habitat area

There will be no reduction in habitat area of any Natura 2000 site arising as a result of this LAP.

Disturbance to key species

The nearest Natura 2000 sites to the LAP lands are the Malahide Estuary cSAC and the Broadmeadow/Swords Estuary SPA, approximately 2 and 2.4 km downstream of the LAP lands. The SAC is designated for a range of habitats, whilst the SPA is designated for its populations of wintering birds, particularly Light-bellied Brent Geese. Atlantic Salmon (a species listed under Annex II of the E.U. Habitats Directive) and Brown Trout are known to occur within Broadmeadow River. Foul water treatment will be via the existing Swords WWTP and surface water drainage will follow SUDS principles ensuring that there will be no disturbance impacts on these fish species. There will be no disturbance impacts arising on any of the key species within any Natura 2000 site as a result of this LAP.

Habitat or species fragmentation:

There will be no impacts on any Natura 2000 site resulting in habitat or species fragmentation.

Reduction in species diversity

There will be no impacts on any Natura 2000 site resulting in species diversity.

Describe any Likely Changes to the Site arising as a Result of:

Changes in key indicators of conservation value (water quality etc.)

The EPA operates a water quality monitoring programme and has one monitoring station that is relevant to the LAP area, at the bridge adjacent to the Swords WWTP (station code 08B020800). This monitoring station lies downstream of the LAP area. The most recent results for water quality monitoring at this station give the water quality as poor (Q value of 3). It is assumed that the EPA will continue to monitor these stations and will therefore be able to report on any changes in water quality. Furthermore, the plan proposes an upgrade to the Swords WWTP prior to any development on the LAP lands which should further ensure that water quality is maintained.

3.5.4. The likely impacts on the Natura 2000 site as a whole

Describe any likely impacts on the Natura 2000 site as a whole in terms of:

- *interference with the key relationships that define the structure of the site;*
- *interference with key relationships that define the function of the site.*

It is not considered likely that there will be any long term impacts on the key relationships that define the structure or function of any of the Natura 2000 sites that lie within 15 km of the LAP lands.

3.5.5. Indicators of significance of these impacts

Provide indicators of significance as a result of the identification of effects set out above in terms of:

Potential Impact	Significance indicator
Disturbance to fauna	None foreseen
Change in key elements of the site e.g. water quality	None foreseen
Habitat loss or degradation	None foreseen
Fragmentation	None foreseen
Disruption	None foreseen

It is emphasised that this Plan does not propose any detailed projects and that impacts and their significance cannot be reliably estimated at this stage.

3.5.6. The likely significance of the potential impacts

Describe from the above those elements of the project or plan, or combination of elements, where the above impacts are likely to be significant or where the scale or magnitude of impacts are not known.

It is not considered likely that there will be any impacts on any of the Natura 2000 sites that occur within 15 km of the LAP lands. Therefore an Appropriate Assessment is not required and a finding of no significance report has been completed for these sites. This is provided in Section 4.

4. FINDING OF NO SIGNIFICANT EFFECTS REPORT

Finding of No Significant Effects Report	
<i>Name and location of the Natura 2000 site</i>	<p> Malahide Estuary SAC Rogerstown Estuary SAC Baldoyle Bay SAC North Dublin Bay SAC South Dublin Bay SAC Howth Head SAC Ireland's Eye SAC Lambay Island SAC Broadmeadow/Swords Estuary SPA Rogerstown Estuary SPA Baldoyle Bay SPA North Bull Island SPA South Dublin Bay and River Tolka Estuary SPA Ireland's Eye SPA Lambay Island SPA Howth Head Coast SPA Skerries Islands SPA </p>
<i>Description of the project or plan</i>	<p>The Oldtown-Mooretown LAP sets out a development strategy for the proper planning and sustainable development of the LAP lands, which will address issues relating to:</p> <ul style="list-style-type: none"> • Accommodation of phased and integrated growth of Swords, primarily for residential use, with a supporting level of mixed uses at Local Centres/Neighbourhood Centres to serve the needs of the area and support the development of a sustainable community; • Creation of a permeable and legible movement network for future development, with access and circulation by all modes of transport linking the site internally and with the surrounding area; • Provision of high quality recreational open space and amenity facilities to meet needs of the expanding population in this area; • Increase in community facilities and health care facilities, in particular provision of additional schools to serve existing and future population; • Enhancement and preservation of existing archaeological sites and increase in appropriate usage and public acknowledgement of such sites.
<i>Is the Project or Plan directly connected with or necessary to the management of the site (provide details)?</i>	No
<i>Are there other projects or plans that together with the project or plan being assessed could affect the site (provide details)?</i>	<ul style="list-style-type: none"> • Swords Waste water Discharge Licence application – Appropriate Assessment, 2009 • Greater Dublin Strategic Drainage Study • Fingal development Plan 2005-2011

The Assessment of Significant Effects

<i>Describe how the project or plan (alone or in combination) is likely to affect the Natura 2000 site</i>	The Oldtown Mooretown LAP is not likely to affect any Natura 2000 site.
<i>Explain why these effects are not considered significant</i>	There are no Natura 2000 sites within the LAP boundary or lying adjacent to the boundary. There will be no direct impacts arising from landtake or fragmentation of habitats. The nearest Natura 2000 site is some 2 km from the LAP boundary and there will be no impacts arising from disturbance to any key species or habitats.

Name of Agency or body Consulted	Summary of Response
Department of the Environment, Heritage and Local Government	A scoping letter was sent to the DoEHLG seeking consultation on the Strategic Environmental Assessment and AA. No response has been received to date.
Eastern Regional Fisheries Board	The ERFB noted that the Broadmeadow River lies close to the northern boundary of the LAP lands. This river supports populations of Atlantic Salmon and Brown Trout. The LAP should incorporate SUDS principles in order to protect sensitive aquatic habitats and species.

Data collected to carry out the assessment

<i>Who carried out the assessment</i>	<i>Sources of Data</i>	<i>Level of assessment completed</i>	<i>Where can the full results of the assessment be accessed and viewed</i>
Fehily Timoney and Company on behalf of Fingal County Council	Desktop study of existing information, the Oldtown Mooretown Local Area Plan and the SEA for the LAP. Published information on distribution of protected or rare habitats and species e.g. NPWS website. Water quality data obtained from EPA website.	As well as this Appropriate Assessment scoping report, an SEA was carried out of the Oldtown Mooretown LAP.	Fingal County Council

5. OVERALL CONCLUSIONS

A screening report to determine whether an Appropriate Assessment is required for the Oldtown Mooretown LAP and whether the LAP will lead to any significant impacts on any Natura 2000 site (i.e. SAC or SPA as designated under the E.U. Habitats and Birds Directive) was undertaken.

The Oldtown Mooretown LAP boundary covers an area of approximately 111.5 ha. The LAP allows for the provision of a total number of residential units across the lands of approximately 3,400 units, which could result in a population of approximately 10,000. The LAP recognises that the existing Swords Waste Water Treatment Plant (WWTP) will require upgrading in order to allow for this level of development and that development will not take place until sufficient capacity exists at the WWTP.

There are no Natura 2000 sites within the LAP lands or lying adjacent to the LAP boundary. There are a total of 17 Natura 2000 sites within a 15 km radius of the LAP boundary. The screening report shows that the LAP will not lead to any significant impacts on any of these sites and an Appropriate Assessment is not required. A 'Finding of No Significant Effects' report has been produced.

Appendix 3

OPW Flood Report



Summary Local Area Report

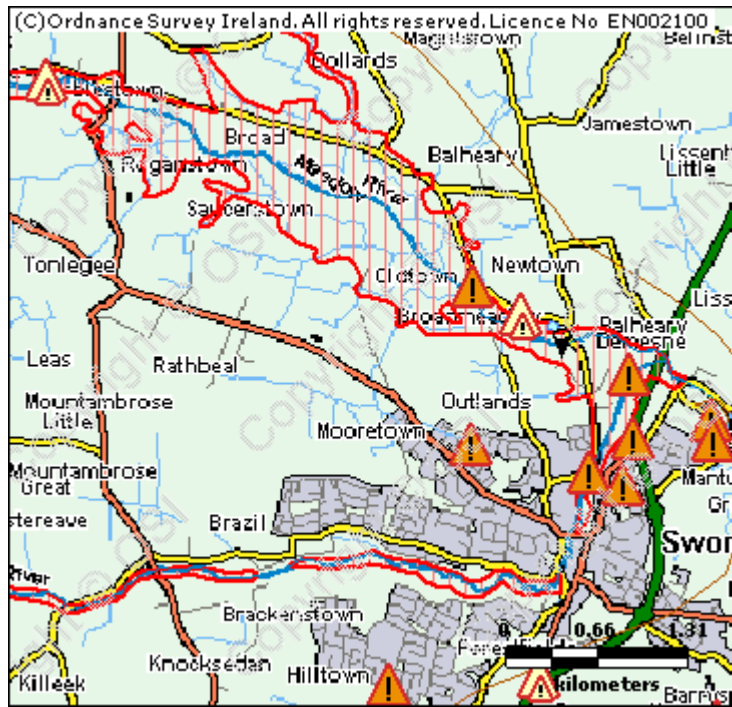
This Flood Report summarises all flood events within 2.5 kilometres of the map centre.

The map centre is in:

County: Dublin

NGR: O 167 481

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Map Scale 1:54,444

Map Legend	
	Flood Points
	Multiple / Recurring Flood Points
	Areas Flooded
	Hydrometric Stations
	Rivers
	Lakes
	River Catchment Areas
	Land Commission *
	Drainage Districts *
	Benefiting Lands *

* Important: These maps do not indicate flood hazard or flood extent. Thier purpose and scope is explained in the Glossary.

9 Results

	1. Estuary Road Swords Feb 2002 County: Dublin Additional Information: Reports (1) More Mapped Information	Start Date: 01/Feb/2002 Flood Quality Code:3
	2. Broadmeadow Swords August 1986 County: Dublin Additional Information: Reports (1) More Mapped Information	Start Date: 25/Aug/1986 Flood Quality Code:3
	3. Ward Swords Co.Dublin August 2008 County: Dublin Additional Information: Reports (1) More Mapped Information	Start Date: 09/Aug/2008 Flood Quality Code:3
	4. Ward North Street Swords Nov 2002 County: Dublin	Start Date: 13/Nov/2002 Flood Quality Code:3

Additional Information: Reports (3) Press Archive (3) More Mapped Information



5. N1 at Roundabout at Fingallions Nov 2002

Start Date: 13/Nov/2002

County: Dublin

Flood Quality Code:3

Additional Information: Reports (1) More Mapped Information



6. Pine Grove Park Swords Nov 1982

Start Date: 05/Nov/1982

County: Dublin

Flood Quality Code:3

Additional Information: Reports (1) More Mapped Information



7. Seatown Villas Swords Nov 1982

Start Date: 05/Nov/1982

County: Dublin

Flood Quality Code:3

Additional Information: Reports (1) More Mapped Information



8. Rathingle Swords Nov 1982

Start Date: 05/Nov/1982

County: Dublin

Flood Quality Code:3

Additional Information: Reports (1) More Mapped Information



9. Balheary Road Swords Recurring

Start Date:

County: Dublin

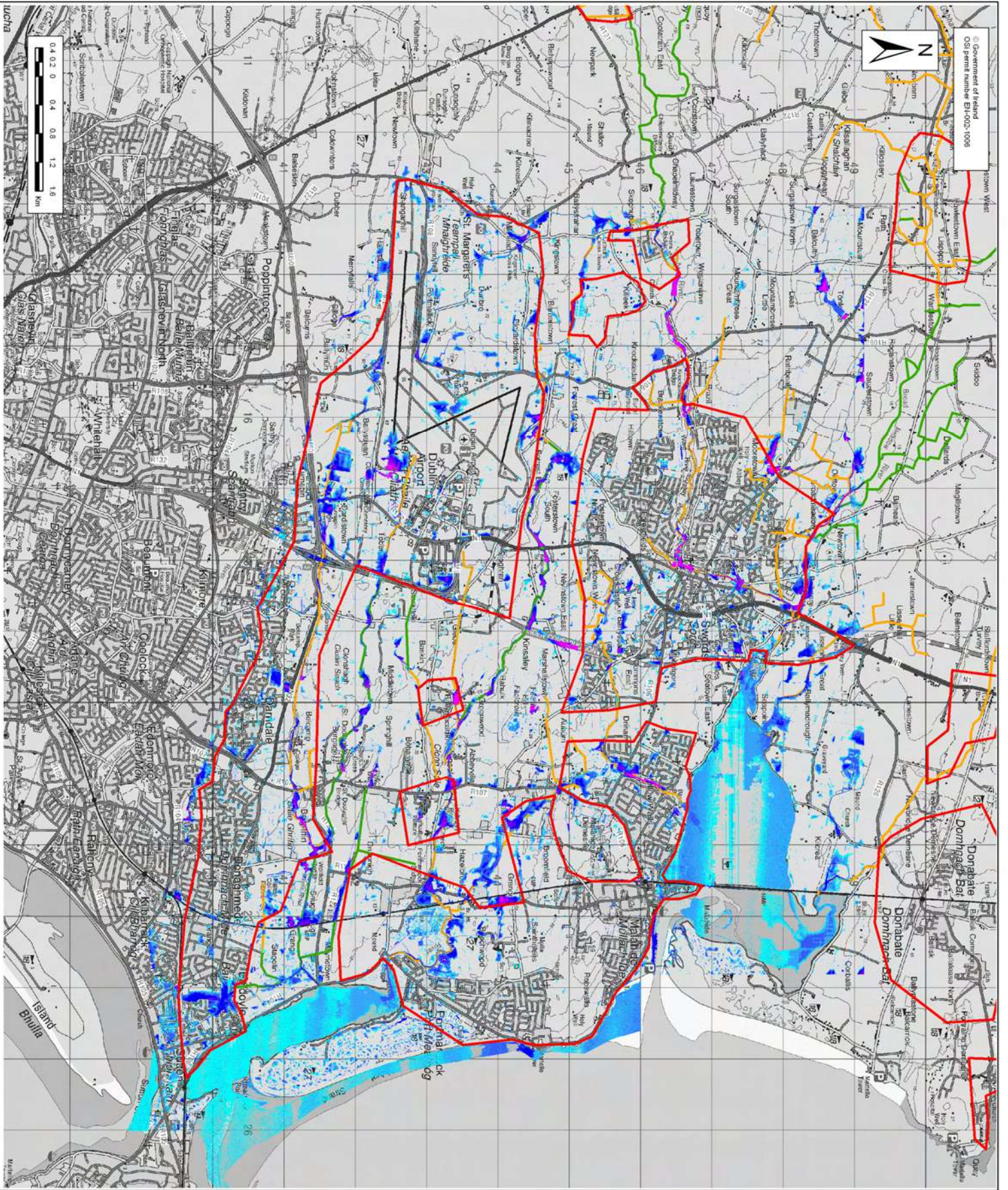
Flood Quality Code:4

Additional Information: Reports (1) More Mapped Information

Appendix 4

Fingal East Meath Flood Risk Assessment and Management Study Maps and Drawings

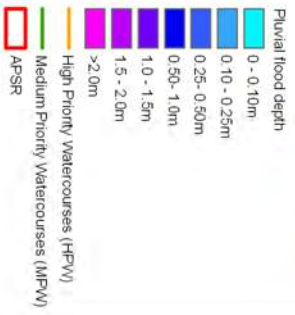




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Location Plan:



USER NOTE:
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Halcrow Barry
 Fingal County Council
 Halcrow Barry
 33 Derry Road
 Dublin 6

Fingal County Council
 Blanchardstown
 Dublin 15

Project:
 FINGAL EAST MEATH FLOOD RISK
 ASSESSMENT AND MANAGEMENT STUDY

Map:
 PLUVIAL FLOOD DEPTH MAP

Map Type:	Map area:
PLUVIAL FLOOD DEPTH	Sector 5

Scenario:	Figure By:	Date
CURRENT	Paul Dunne	04 Nov 2006

Checked By:	Date
Roland Crowder	04 Nov 2006

Figure No.:	Revision
M9/PLUV/CURS/005	0

Drawing Scale: 1:5000 Pfd Scale: 1:1 @ A3



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Location Plan :

PLUVIAL FLOOD EXTENT MAP

- Legend**
- Flood extent
 - High Priority Watercourses (HPW)
 - Medium Priority Watercourses (MPW)
 - APSR

USER NOTE:
 USERS OF THESE MAPS SHOULD REFER TO THE OBTAINED DATA FOR THE MOST ACCURATE INFORMATION. THE INFORMATION PROVIDED AT THE FRONT OF THIS BOARD VOLUME IF THIS SHOULD NOT BE USED FOR ANY PURPOSE.

Halcrow Barry
 Fingal County Council
 Halcrow Barry
 32 Derry Road
 Dublin 6

Fingal County Council
 Blanchardstown
 Dublin 15

Project: FINGAL EAST MEATH FLOOD RISK ASSESSMENT AND MANAGEMENT STUDY

Map: PLUVIAL FLOOD EXTENT MAP

Map Type:	PLUVIAL FLOOD EXTENT
Map area:	Sector 5
Scenario:	CURRENT
Figure By:	Paul Dunne
Checked By:	Roland Croner
Approved By:	
Figure No.:	M9/PLUV/CURS/005
Drawing Scale:	1:50000
Revision:	0

Date: 04 Nov 2006
 Date: 04 Nov 2009
 Date: 11 @ A3