

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

NOVEMBER 2010



ENVIRONMENTAL BALANCE IN DESIGN AND CONSTRUCTION

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

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Abstract: An strategic environmental assessment was completed for the adopted Oldtown – Mooretown Local Area Plan 2010. This report comprises the non-technical report of the assessment.

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Section 1

Introduction and Background



1. INTRODUCTION AND BACKGROUND

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.

The purpose of the SEA is to set out the likely significant environmental effects of the adopted local area plan (LAP) on Oldtown and Mooretown over its lifetime. This report presents the findings from the SEA of the LAP in a non-technical format and details the following;

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

1.1 SEA 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 plan/ programme. In subjecting the preparation of the plan/ programme to an SEA, development is directed to where it is sustainable and compatible with land uses and to robust receiving environments.

1.1.1 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 Regulations 2001 in order to incorporate the SEA process into land-use planning. They will be termed "The SEA Regulations" in the environmental report. There are several guidelines available from the Department of Environment Heritage and Local Government (DoEHLG) and the Environmental Protection Agency (EPA) to assist in SEA preparation. The Planning and Development (Amendment) Act 2010 amends the relevant Planning Acts 2000 and has significant implications for conducting SEA, the undertaking of what are now known as Natura Impact Assessments (previously Appropriate Assessments) and for the plan formulation process generally and for LAPs. The provisions of this Act, although coming in to force relatively recently, have been considered in both the SEA and this report.

1.1.2 SEA Process

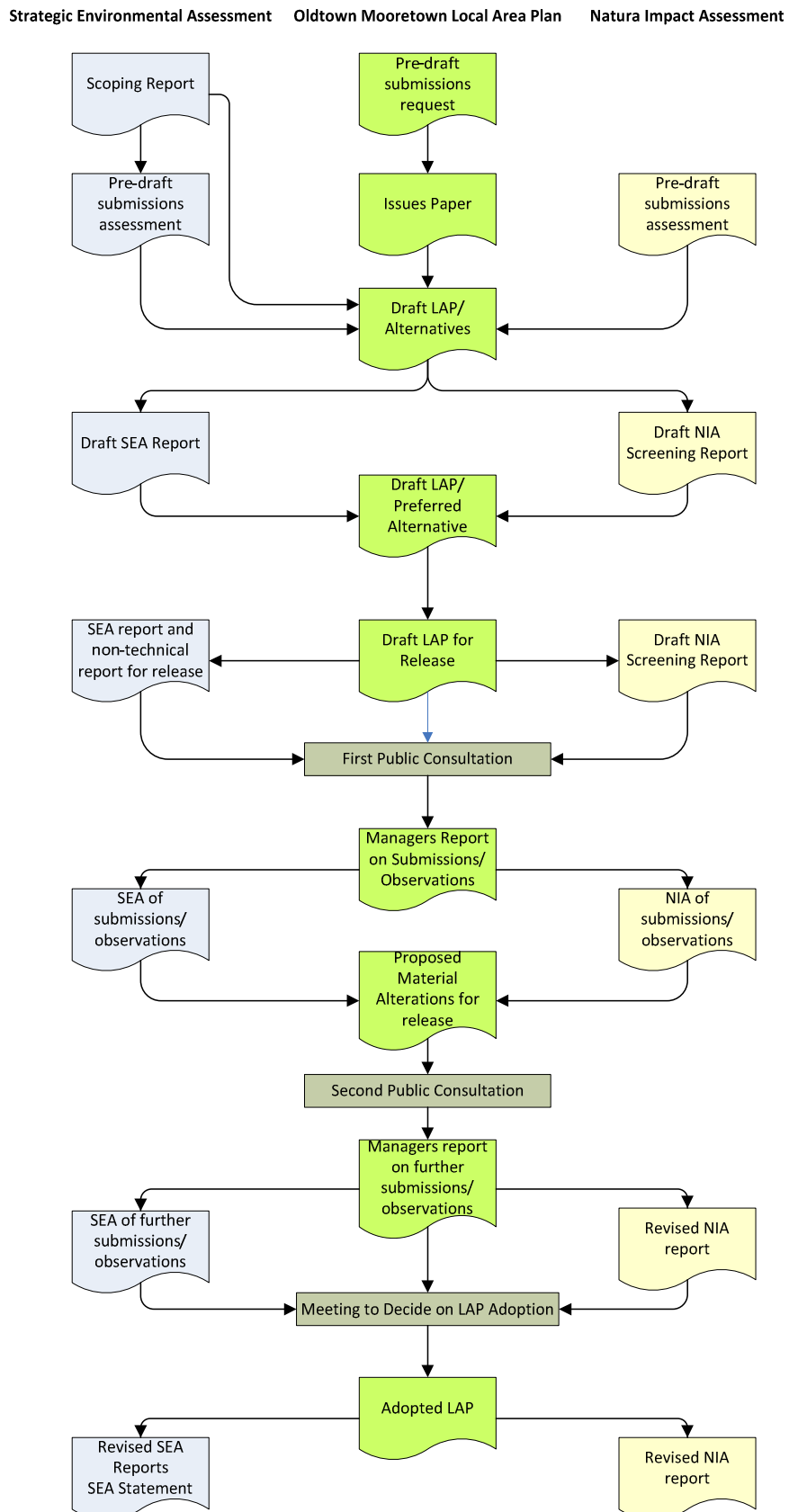
In the context of the production of a LAP, the SEA process comprises the following principal stages:

- **Screening:** to determine which plans and programmes 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 of the draft LAP and associated Environmental Report
- **A SEA Statement:** to identify how environmental considerations and consultations have been integrated into the final LAP.

The development of the LAP, SEA and Natura Impact Assessment required under 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 local area plan, SEA and Appropriate Assessment are presented in Figure 1.1.

Figure 1.1: Plan, SEA and NIA Development



Section 2

Oldtown Mooretown Local Area Plan 2010



2. OLDTOWN MOORETOWN LOCAL AREA PLAN 2010

2.1 LAP Area

The Oldtown-Mooretown LAP area comprises approximately 111.4 hectares and is located at the western 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. 50.4 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 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.

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.

The LAP boundary is presented in Figure 2.1 overleaf.

2.2 Zoning History

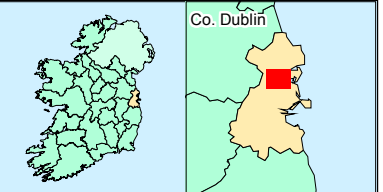
The lands are located in a transitional zonal area in the Fingal County Development Plan 2005-2011, being between an existing built up area and agricultural lands. To the west of Mooretown the lands are zoned 'GB - 'to protect and provide for a greenbelt to demarcate the urban and rural area and provide 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 the 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.



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.	2.1	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@fcco.ie		



2.3 Oldtown-Mooretown Local Area Plan

It is estimated that the 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 area 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 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 through the following building and transport developments;

- 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 routes 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 Swords 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.

Section 3

Environmental Baseline



3. ENVIRONMENTAL BASELINE

The environmental baseline assessment was 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.

3.1 Biodiversity

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 sites, Natura 2000 sites, (Special Areas of Conservation (SAC's) and Special Protection Areas (SPA's)) and nationally important sites, Natural Heritage Areas (NHA's).

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. There are no nationally important sites in or adjacent to the LAP lands.

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 sites downstream of the development lands.



Plate 3.1: Broadmeadow River downstream of Oldtown Lands

The existing lands at Mooretown were considered to be 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. The Oldtown lands are rough grassland with an area of disturbed grassland by the Rathbeale Road. The lands were considered to be insignificant in terms of ecological amenity and were deemed to constitute a poor habitat for wildlife.

Habitats Directive Assessment

As per Article 6 (3) and (4) of the Habitats Directive 92/43/EEC, an Article 6 assessment for the LAP using "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" was prepared due to the potential for impact on the downstream designated Malahide Estuary. This assessment is presented in Appendix B of the SEA Environmental report.

The screening report did not find any potential impact on the designated European sites from the implementation of the LAP.

3.2 Water Quality

The LAP lands are bounded to the north by the Broadmeadow River with two tributaries flowing through the LAP lands, namely:

- Broadmeadow tributary- Mooretown
- Broadmeadow tributary- Saucerstown

The EPA's historical monitoring of the Broadmeadow describes it as having 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. Similarly the Water Framework Directive (WFD) assessment found that the Broadmeadow and its tributaries mentioned above are at risk of not achieving 'good status' by 2015.

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

3.3 Air Quality and Climate

There is no historical air quality data available as the EPA is currently monitoring at an air monitoring unit in Swords. The unit is continuously monitoring for nitrogen oxides and ozone. This historical data will be useful in identifying future air quality trending in Swords.

3.4 Noise

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

3.5 Soils and Geology

The LAP lands are currently agricultural pasture and grassland. 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.

3.6 Population and Quality of Life

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 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 of 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.

A relatively high proportion of the workforce of the combined Swords-Lissenhall and Swords-Glasmore EDs 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 combined Swords-Lissenhall and Swords-Glasmore EDs 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 nearest health care facility to the LAP lands is in the Applewood Village local centre to the east of Oldtown. Along with the 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 who identified the need for one 'Two Primary Care Team' (2PCT) Centre in the LAP lands to serve the future population.

During consultation the Department of Education and Science indicated that for the education needs of the projected population of the LAP 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 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.

3.7 Cultural Assets

Historically, there have been no archaeological monuments listed for the LAP lands. Since 2003, the lands have been subject to invasive and non-invasive archaeological surveys.

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

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.

The conservation plan is integrated into the LAP. The objective of the conservation plan 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.

3.8 Material Assets

The dominant land use in the Oldtown lands is non-irrigated arable land with the Mooretown lands being classified as pasture.

The lands are bisected by the Rathbeale Road which is the primary route from Swords to the north-west. There is limited traffic capacity on this road with no public transport facilities. Oldtown is also served by an extension to the Glen Ellan road connecting the temporary national schools in the Oldtown Lands with the residential areas at Applewood and Glen Ellan.

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. Medium-term proposals include the development of the Western Distributor Link Road and Inner Ward River Valley Crossing, enhancement of existing junctions in the area, a quality bus route and integrated pedestrian and cyclist network.

The current design capacity of the Swords wastewater treatment plant (WWTP) 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 permission 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. The Plant is reported in the EPA's 2009 Report on *Urban Wastewater Discharges in Ireland for Population Equivalents Greater than 500 persons – Report for years 2006 and 2007* for non-compliances in 2006 and 2007.

The water supply to the lands will be serviced from the Leixlip Water Treatment Plant. This plant is approaching its maximum capacity with plans to upgrade and increase output by the end of 2013. Currently the Leixlip water supply is on the EPA' remedial action list for 'treatment and management issues'.

3.9 Landscape

The LAP lands are peri-urban in character, displaying both urban and rural elements and influences. The 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 LAP 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 landscape to the 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 Linear 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 LAP lands provides limited amenity value to any visual receptors.

3.10 Environmental Issues of Relevance to the Oldtown Mooretown LAP

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.

This baseline water quality 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.

The significant early medieval archaeological finds require 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
- Provision of signage that can be adopted throughout Fingal so it becomes a recognisable brand

The primary issue 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.

Section 4

Alternatives



4. ALTERNATIVES

The development and assessment of alternatives (or options) is a legal requirement under the SEA Directive. The SEA must show that the plan (or programme) considered alternatives incorporating the objectives and geographical location of the plan (or programme). Overall, alternatives presented in the SEA report must be considered reasonable, capable of implementation, and should represent a range of different approaches within the statutory and operational requirements of a plan.

4.1 Development 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/zoning 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'.

The following local constraints were also considered and these include:

- Existing transport infrastructure: this includes the Rathbeale Road and the Glen Ellan Road.
- Planning-approved schools in Oldtown
- Archaeological finds and the Conservation Plan for the ecclesiastical complex (Rathbeale Archaeological Park and other archaeological sites)
- Field boundaries (hedgerows and drainage ditches)
- Existing and designated open space (Class 2 open space in neighbouring estates, Broadmeadow River Linear Park, Swords Regional Park)
- Proposed transport infrastructure (The Swords Western Distributor Link Road)

4.2 Alternatives Decision Making

4.2.1 Do Nothing Scenario

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.

4.2.2 Do Something Scenarios

In the do-something scenarios, there are key development aspects which must be included in the LAP 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 the Western Distributor Link Road.

Two alternatives were conceived which provide for the key development aspects detailed above, the existing zoning requirement, and take cognisance of the geographical and physical constraints.

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 LAP lands including at the Local Centres, with low density provided for in 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 of 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 of approx 10,000 persons. Provision of a mixed density range ensures the plan lands accommodate a range of dwelling types and sizes and recognises the important edges of Broadmeadow Linear Park and Swords Regional Park.

4.2.3 Environmental Assessment

The environmental assessment completed in Table 4.1 does not provide a more environmentally favoured alternative. The priority of the LAP is to provide 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 predicted including 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.

4.3 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 the 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.

Table 4.1: Do Something Scenarios Environmental Assessment

LEGEND	
Positive Impact	
Negative Impact	
Uncertain	
No impact anticipated	

SEA Environmental Objective	Medium to Low Density Development	Mixed Density Development
Biodiversity, fauna and flora Objective B1 Protect and enhance biodiversity.	Poor inherent ecological value, unknown if development will enhance biodiversity through managed green corridors and sites.	Poor inherent ecological value, unknown if development will enhance biodiversity through managed green corridors and sites.
Water Objective W1 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.	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.	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.
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 higher density development.
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).

SEA Environmental Objective	Medium to Low Density Development	Mixed Density Development
<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>	<p>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.</p>	<p>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.</p>
<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>	<p>Permanent positive impact through the provision of new community facilities and services in conjunction with residential development.</p>	<p>Permanent positive impact through the provision of new community facilities and services in conjunction with residential development.</p>
<p>Cultural heritage</p> <p>Objective CH1</p> <p>Promote the protection and conservation of the cultural, including architectural and archaeological, heritage.</p>	<p>Greater protection afforded to archaeological finds through LAP than without.</p>	<p>Greater protection afforded to archaeological finds through LAP than without.</p>
<p>Material assets</p> <p>Objective MA1</p> <p>Maximise use of the existing built environment.</p>	<p>LAP developed cognisant of available and planned infrastructure</p>	<p>LAP developed cognisant of available and planned infrastructure</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>	<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.</p>	<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 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>
<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>	<p>Open spaces and connections between open spaces will be provided as part of the LAP to provide areas of high amenity but the LAP will incur significant change from existing greenfield landscape to residential and community development.</p>	<p>Open spaces and connections between open spaces will be provided as part of the LAP to provide areas of high amenity but the LAP will incur significant change from existing greenfield landscape to residential and community development.</p>

Section 5

Strategic Environmental Objectives



5. STRATEGIC ENVIRONMENTAL OBJECTIVES

5.1 Introduction

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.

5.2 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 county and lower levels.

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 LAP. These include:

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

In the policy context review, outlined in Chapter 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 as described in this Chapter.

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 5.1.

5.3 Environmental Protection Objectives

In addition to the settlement objectives, the LAP also contains an array of international, European and national environmental protection policies and attendant objectives. For example, Ireland is signatory to the Kyoto protocol and the Habitats Directive. The legislation governing the production of a LAP requires that it be consistent with these objectives.

Table 5.1: SEA Objectives

SEA Objective
<p>Biodiversity, fauna and flora</p> <p>Objective B1 - Protect and enhance biodiversity</p>
<p>Water</p> <p>Objective W1 - 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>Air/climatic factors:</p> <p>Objective AC1 - Protect and enhance ambient air quality</p>
<p>Noise</p> <p>Objective N1 - Minimise environmental noise</p>
<p>Soil (including minerals)</p> <p>Objective S1 - Maintain the quality of soils</p>
<p>Population</p> <p>Objective P1 - Improve people's quality of life based on high quality residential, working and recreational environments and on sustainable travel patterns.</p> <p>Objective P2 - Ensure that a good mix of residential types, sizes and tenures is provided.</p> <p>Objective P3 - Ensure that a good mix of quality employment opportunities is provided where they can be accessed by public transport.</p> <p>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.</p>
<p>Cultural Heritage</p> <p>Objective CH1 - Promote the protection and conservation of the cultural, including architectural and archaeological, heritage</p>
<p>Material Assets</p> <p>Objective MA1 - Maximise use of the existing built environment</p> <p>Objective MA2 - Provide sufficient drinking water supply, and sufficient wastewater management capacity to accommodate the projected population of the subject area.</p>
<p>Landscape</p> <p>Objective L1 - 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>

Section 6

Evaluation of Policies and Objectives



6. EVALUATION OF POLICIES AND OBJECTIVES

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 and the LAP objectives (as set out in the various chapters of the LAP).

6.1 Assessment Criteria

The assessment criteria used here is based on the determination of the 'likely significant' impacts of the LAP's policies and objectives on the environmental objectives. The likelihood of an impact occurring on any of the environmental objectives are determined and the significance and duration of the likely impact is then determined. 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 magnitude of an impact will be dependant upon its duration and frequency.

6.2 Policies and Objectives Assessment

The Oldtown-Mooretown LAP is set out as per Table 6.1 below and the headings therein will be followed in assessing the LAP.

Table 6.1: 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

Section 3 of the LAP describes the key objectives and policies and the assessment of this section is reproduced from the environmental report as Section 6.3 overleaf.

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

6.3.1 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 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.

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 has 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 also reflect these impacts and enforce the requirement for the protection of the Broadmeadow River. 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.

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 cClass 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).

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. However, the draft LAP Strategy map does not indicate any green links (or any pedestrian and cycle access) from the Oldtown lands to the neighbouring estates to the east. Movement would thus be restricted to the road system and the objective of permeability for pedestrians and cyclists would not be achieved. Potential pedestrian and cycle links from Oldtown to Applewood via Ashton Grove, Castleview Heights and Castleview Heath/Way should be considered.

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 draft LAP promotes the development of a 'strategic landscape belt' around this boundary. The draft 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.

6.3.2 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; and
- 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.

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).

6.3.3 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 County 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.

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/tree lines, 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.

The LAP 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 draft 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 minimum 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.

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 the 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 neighbouring Appplewood 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 Appplewood 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 draft 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 substantial 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.

6.3.4 Urban Design Framework and Master Plans

The layout of the Mooretown portion of the site as illustrated in the LAP 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 (WDLR), 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.

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 WDLR. This constitutes an opportunity to avoid or minimise the potential negative impact of allowing the trunk watermain and the WDLR to determine the urban form of Oldtown.

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.

6.3.5 Water Services

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. No development is permitted in the 1 in 100 year or 1 in 1000 year flood probability.

This section is also strengthened by the provision of Water Services key objectives, which include the support of the WFD management plan and re-emphasise the protection of the Broadmeadow River.

6.3.6 Public Utilities

The provision of public utilities 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.

6.3.7 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. Developments 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. It is also an objective that developers shall give consideration to the provision of higher levels of noise insulation than in the current Building Regulations or any updated standards. These objectives are positive in reducing the carbon footprint of the LAP area and reducing harmful air emissions.

6.3.8 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 waste handling procedures to ensure that lands are not used for disposal of construction waste and that licensed waste handlers are used. In addition, the LAP requires that prospective developers propose measures to negate any nuisance arising from construction activities on the existing residents of the area.

6.4 Assessment of the Managers Report on Proposed 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.

The Managers report segregated the submissions into ten areas of amendments on which SEA was conducted. The submissions related to the following issues;

- Prematurity of Development/LAP;
- Transportation infrastructure;
- Water Services;
- School provision;
- Open space and Community facilities;
- Height and Density;
- Local Centres and Retail Development;
- Phasing and;
- Environmental Issues.

6.5 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 amendments 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 6.2: Assessment of Material Amendments to the Plan

Proposed Alteration	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	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.	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

Proposed Alteration	SEA Impact
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 side of the R108 Naul Road from the junction with Brackenstown Road southward to the Knocksedan housing estate.	Positive Impact on population and material assets objectives
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

Proposed Alteration	SEA Impact
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 amendments, there were no amendments which presented a significant negative impact based on the SEA objectives, therefore mitigation measures were not required.

6.6 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 LAP was adopted by Fingal County Council on the 11 October 2010.

Section 7

Mitigation



7. 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 by FTC and CSR. These measures have also resulted from the assessment of the LAP.

The mitigation measures integrated into the LAP are presented in Table 7.1.

Table 7.1: Integrated Mitigation Measures

Water Quality

- Support the Water Framework Directive in implementing the Eastern River Basin District Management Plan and the Program of Measures for the Broadmeadow River.
- 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" 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.

Road Noise

- Inclusion of objective for use of low noise road surfaces

Habitats Directive Assessment

- At detailed planning application stage all developments which could impact on Broadmeadow River will be subject to the 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 master plan(s) for the LAP.
- Support conservation plans for designated ecological areas which the LAP lands have potential to impact.
- 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.

Section 8

Monitoring



8. MONITORING PROGRAMME

8.1 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 LAP. This allows remedial action to be taken. Monitoring allows the actual impacts of the LAP 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 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 the monitoring programme for the Oldtown Mooretown LAP is based on the use of indicators and targets, the assignment of responsibilities and the setting of appropriate time lines.

8.2 Monitoring Programme

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 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 LAP. The frequency of monitoring is set by relevant legislation.

8.3 Responsibilities

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

8.4 Sources of information

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.

In Table 8.1 of the Environmental Report the format for the monitoring programme for the 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 this LAP. The frequency of monitoring is set and the point at which additional action and its required form are also detailed.

8.5 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 LAP is made to the EPA SEA Section.

Table 8.1: 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 zoning 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 P2 P3 P4	<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 house 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. Residential 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 	<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

SEA Objective		SEA Indicator	SEA Target	Source Responsibility
			<p>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, of 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. 	
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 	<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 	<ul style="list-style-type: none"> Fingal County Council
MA2	<p>Provide sufficient drinking water</p>			

SEA Objective		SEA Indicator	SEA Target	Source Responsibility
	supply, and sufficient wastewater management capacity to accommodate the projected population of the subject area.	<ul style="list-style-type: none"> Completion of WWTP upgrade to 120,000 PE capacity. 	<ul style="list-style-type: none"> 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 	
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. 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