

# **APPENDIX V NON TECHNICAL SUMMARY**

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## **ENVIRONMENTAL REPORT OF THE DRAFT SOUTH DUBLIN COUNTY DEVELOPMENT PLAN 2010-2016 STRATEGIC ENVIRONMENTAL ASSESSMENT**



**South Dublin County Council**

County Hall

Tallaght

Dublin 24



**16<sup>TH</sup> SEPTEMBER 2009**

# **Non Technical Summary**

## **Table of Contents**

- 1.1 Introduction**
- 1.2 Strategic Environmental Assessment Methodology**
- 1.3 The Draft South Dublin County Council Development Plan**
- 1.4 Relationship of the Plan with other Relevant Plans and Programmes**
- 1.5 The Existing Environment**
- 1.6 Strategic Environmental Objectives**
- 1.7 Description of Alternative Plan Scenarios**
- 1.8 Evaluation of Alternative Plan Scenarios**
- 1.9 Mitigation**
- 1.10 Monitoring Measures**

# Non Technical Summary

## 1.1 Introduction

Strategic Environmental Assessment is a process which was adopted into Irish Law in 2004 and is a statutory requirement in the case of a County Development Plan. The SEA has been carried out in order to comply with the provisions of the European SEA Directive and national SEA Regulations and in order to provide a clear understanding of the likely environmental consequences of decisions regarding the future accommodation of growth in South Dublin County Council. This report should be read in conjunction with the South Dublin County Development Plan.

This 'assessment' process is a key mechanism in promoting sustainable development; in raising awareness of significant environmental issues in the South Dublin County Council area and in ensuring that such issues are properly addressed within the capacity of the planning system. It has the potential to bring considerable added value to the implementation of the new County Development Plan over the next six years.

The Environmental Report which follows has guided the preparation of objectives, policies and development scenarios for the County Development Plan with an ultimate goal of achieving sustainable development in the County that can be absorbed into the landscape without causing adverse harm to the environment.

## 1.2 Strategic Environmental Assessment Methodology

The Review of the County Development Plan began in November 2008. The Development Plan Issues Paper and the Strategic Environmental Assessment Issues Paper were released to aid consultation. The documents highlighted the main development issues and environmental issues for the County.

Submissions were received from members of the public and the designated environmental authorities (Environmental Protection Agency, Department of the Environment, Heritage and

Local Government and Department of Communications, Energy and Natural Resources). These submissions were taken into consideration during the preparation of the County Development Plan and the Environmental Report.

## 1.3 Main Objectives for the County Development Plan

The core policy aim of this Development Plan is to promote a more consolidated and compact urban form for the County. This will entail the following;

- The consolidation/strengthening of the designated town centres particularly the County Town of Tallaght;
- Supporting the existing urban areas including the redevelopment of brown field lands.
- The promotion of significant new economic development along defined economic corridors based on fixed and developing public transport corridors;
- Supporting continued agricultural activity in the west of the County.
- Identifying and maintaining the green infrastructure.
- Promoting and supporting more sustainable forms of transport particularly public transport.

The twin objectives of facilitating consolidation and providing for sustainable economic development are being delivered by introducing a tiering of the land at present zoned for "Enterprise and Employment". The introduction of three tiers will allow the optimisation of zoned land adjoining Town and District Centres and rapid transit lines for people intensive service and knowledge based economic development in Tier 1, maintaining established economic/ industrial clusters with significant levels of capital intensive industry in Tier 2 with the traditional light industry or logistics based developments (uses that are land hungry, employ less people per hectare and require rapid and easy access to the national roads network) in Tier 3.

The rezoning of an amount of Greenfield land as Tier 3 "Enterprise and Employment" is required to facilitate the relocation of suitable uses from Tier 1 and Tier 2 areas and to free up these lands for redevelopment.

#### **1.4 Relationship of the Plan with other Relevant Plans and Programmes**

The Draft South Dublin County Development Plan and accompanying Environmental Report fit into a hierarchy of strategic legislation, plans and policy documents. A number of higher-level strategic actions such as the National Spatial Plan and the Regional Planning Guidelines for the Greater Dublin Area pre-determine the boundaries of the County Development Plan, while the County Development Plan sets the context for plans further down in the hierarchy such as Local Area Plans and other studies.

#### **1.5 Summary of Baseline Environment/ Existing Environmental Problems**

The Environmental Report contains a range of baseline information on key environmental headings such as Population and Human Health, Biodiversity (Flora and Fauna), Landscape/Geology/Soil, Agriculture and Forestry, Water Quality, Air Quality, Waste Management, Material Assets, Cultural Heritage and Climate Change and Sustainability.

##### **1.5.1 Population and Human Health**

This section covers the population of the County and the locational consequences of the settlement strategy. Notwithstanding the current structural issues surrounding the economy and housing, projections still point to an increasing national population and demand for housing, greater longevity, smaller household size and a stable birth rate. The main issues in South Dublin are that of depopulation in older established areas and of population growth in Greenfield areas at the periphery of the urban fringe. The main threats in terms of population and human health include the encroachment of development onto greenfield lands, air and noise pollution from vehicles, provision and

maintenance of useable amenity space, and ensuring that sites of concern, such as obsolete landfills, illegal dumps, contaminated soils sites within the county do not pollute ground or river waters.

##### **1.5.2 Biodiversity**

Biological diversity or biodiversity refers to the variety of life on the Earth. It includes flora and fauna and the habitats or places where they live. While, in South Dublin, the two candidate Special Areas of Conservation (Glenasmole and part of the Wicklow Mountain site - EU Designation), the five proposed Natural Heritage Areas (Liffey Valley, the Grand Canal, the Dodder Valley, Lugmore Glen, the Slade of Saggart and Crooksling -National Designation) and the Special Amenity Area of the Liffey Valley are of particular importance, the remaining ecological network throughout the county is also important.

The main threats to biodiversity include development on previously undeveloped or Greenfield land where habitats become separated from each other or even destroyed; the large conifer afforestation in the upland areas of the county which may be having an affect on certain bogs and riverine systems; development in floodplains of rivers or wetland areas; invasive non-native plant and animal species that can cause major ecological changes and damage to habitats where they become established and hedgerow removal reducing habitat corridors.

A lack of a Biodiversity or Habitat Plan for the County constrains detailed assessment of valuable habitats at local level.

##### **1.5.3 Landscape, Geology and Soil**

The landscape of the County may broadly be broken down into three main character areas. The bulk of the urban or built environment, located at the northern and eastern section of the County, is part of the Dublin Metropolitan Area agglomeration, the hills and mountains to the south and the flat rural farmland area to the west.

Of the three river systems in the County, both the Liffey and the Dodder are significant in their contribution to the landscape character of the area. A number of sites in the County have been identified as being of Geological Importance including some working quarries. Aside from the upper reaches of the mountains, the soil resource within South Dublin has a wide land use capability of accepting a diverse range of agricultural options.

The main threats to landscape include the visual impact of developments in the rural and mountain areas. While it is considered that the foothills and upland areas of the Dublin Mountains are the most sensitive to change in visual terms, it would appear that the lands within the low plain, around Newcastle and Baldonnell are subject to the most development pressure. A Heritage Plan is at present being undertaken for South Dublin and will be finalised by late 2009. Some, though not all, of the information gaps caused by the absence of a detailed Landscape Character Assessment will be addressed in the Heritage Plan.

Quarries, specifically those in scenic upland areas, can have a significant effect in the landscape. Quarrying results in the extraction and removal of significant quantities of non-renewable natural resources. A number of old landfill or contaminated sites have been identified (66 in South Dublin) which have the potential to negatively affect receiving waters.

The opportunity now exists to give the sites of geological importance identified by the Geological Survey of Ireland a degree of protection by inclusion within the proposed Development Plan.

#### **1.5.4 Agriculture and Forestry**

Large sections of land in the south and south west of the County are dominated by rural uses such as agriculture and in the upland areas, forestry. Approximately 983 persons work in agriculture and forestry in the county, 0.4% of the overall working population in South Dublin. In order to ensure the continued viability of the agricultural and

forestry sectors within the County, provision is required to allow for rural and farm diversification and sources of off-farm income, rather than allowing for the continued development of rural lands due to urban pressure.

Forestry has potential for detrimental visual impact, if not laid out correctly. In addition, forestry, during growth and felling stages can have a significant detrimental impact on river systems. The reduction in the amount of arable soil close to the City could have an affect on the ability of the Dublin Metropolitan Area to feed itself.

#### **1.5.5 Water**

Water in South Dublin has played a significant role in the development of the County and indeed Dublin City. The Rivers Liffey and the Dodder and their tributaries have had a considerable impact on the landscape. Water from South Dublin was one of the earliest supplies (13th century) of clear water to Dublin City, and still supplies drinking water to the county today. South Dublin has no natural lakes.

##### **1.5.5.1 The Water Framework Directive.**

Water Management in the European Union is governed by Directive 2000/60/EC (the Water Framework Directive, (WFD)). The WFD sets out that a Member State shall implement the necessary measures to prevent deterioration of the status of all bodies of surface, ground estuarine and coastal water, and shall protect, enhance and restore all bodies of surface and ground water with the aim of achieving good status by 2015. South Dublin County Council, as a public body, is required to co-ordinate its policies and operations to maintain water quality of unpolluted water bodies, and improve the status of polluted water bodies.

For the purposes of implementing the WFD, Ireland has been divided into eight river basin districts. South Dublin lies wholly within the Eastern River Basin. A characterization report for this basin was prepared in September 2005. The Eastern River Basin Characterisation report indicates the main pressures and threats to the water-bodies in the basin achieving the status required under

the WFD. In addition to the assessments noted above, the WFD requires that Registers of Protected Areas (RPAs) are to be compiled for water bodies, or part of water bodies which must have extra controls on their quality by virtue of how their waters are used by people and by wildlife.

#### 1.5.5.2 River Basin Management Plan.

This WFD work will culminate in the adoption of a River Basin Management Plan for the Eastern River Basin District (ERBD) in late 2009. A draft plan is currently available, which identifies Protected Areas in South Dublin. The management plan will propose a programme of protection and improvement of waters in the County with the aim of achieving the required status of the WFD within the county. The Draft River Basin Management Plan for the ERBD indicates the status of the three (3) main rivers in South Dublin and projects a timeframe of 2027 for compliance with the WFD regarding these rivers.

It is noted in the breakdown of pollution within the rivers that wastewater and Industrial Discharges, as well as agriculture account for significant amounts of pollution. Pollution from forestry also leads to large amounts of pollution to the Dodder and Camac, while discharges from landfills, mines and contaminated land account for over 50% of pollution to the Camac. Unsewered properties in the Dublin Mountain/Uplands areas act as a significant contributor to pollution in the Dodder and Camac. The Draft River Basin Management Plan for the ERBD proposes management and monitoring for these rivers.

Groundwater in South Dublin currently meets the standards of the WFD, however, it is noted in the Greater Dublin Strategic Drainage Study (GSDS) that there is a likely possibility of the groundwater in the urbanised northern section of the county being at risk from diffuse sources including inadequate urban sewerage systems and point sources including some contaminated land. This section of the county is classified as being 'at significant risk' of failing to achieve the WFDs objective of 'Good' water status by 2015. The full implementation of the GSDSs, and the management proposals

within the Draft River Basin Management Plan for the ERBD should ameliorate these issues.

The impact of development and extraction industries upon groundwater requires consideration. Mapping supplied by the Geological Survey of Ireland (GSI) indicates a number of areas within the county where bedrock lies close to the surface. The sensitivity of these areas could impact on the groundwater within the county, should inappropriate development be allowed to take place in close proximity to these locations. Preliminary work is already underway by the GSI on a Groundwater Protection Scheme for South Dublin.

Continual monitoring of sites with IPC/Integrated Pollution Prevention Control (IPPC) license is required, as is careful and systematic examination of the combined sewer system in order to reduce the amount of overflows from Combined Sewer Overflows.

A number of protected areas are highlighted within South Dublin as part of the Draft River Basin Management Plan for the ERBD. These include Natura 2000 sites such as Glenasmole Valley/Bohernabreena Reservoirs and areas of drinking water abstraction from lakes and rivers.

The location of localized flood points in South Dublin is indicated on the OPW National Flood Mapping Website. Detailed information concerning floodplains will become available following the completion of Catchment Flood Risk Assessment Management Studies (CFRAMS) the River Dodder and the River Liffey. These studies will allow the requirements of the Draft Flood Management Guidelines, released by the DoEHLG in November 2008 to be taken into account in order to ensure that flooding in these areas does not impact on human health, property, ability to meet the requirements of the WFD or biodiversity.

### **1.5.6 Air Quality and Noise Pollution**

Emissions from vehicles, extractive industries and intensive industries reduce the quality of air and thus have a negative affect on the quality of life of residents of the County. Noise pollution is considered to be one of the most damaging and prevalent forms of nuisance and pollution within urban areas. High levels of traffic noise especially can have a detrimental effect on the quality of life, and on human health.

In order to monitor the levels of atmospheric pollutants, four zones were defined in the Air Quality Standards Regulations 2002. The Dublin Conurbation or built up area is considered to be Zone A. The remainder of the county is Zone D. The Environmental Protection Agency maintains one air monitoring station within the County at Tallaght on the Old Bawn Road. A mobile monitoring unit was located at Knocklyon adjacent to the M50 until January 2009. The latest available document '*Air Quality in Ireland Report (2007)*' by the EPA indicated that none of the monitoring stations in South Dublin exceeded allowable limits during that year.

There are three sources of large scale industrial activities monitored by the EPA. These are Integrated Pollution Prevention Control (IPPC) licenses, waste licenses and SEVESO licenses or sites. There is a concentration of these activities in the County east of the M50 and just north and South of the Naas Rd. In terms of the impact of various licensed industrial facilities on future development, the development of brownfield sites for mixed use development will need to have regard to any health and safety constraints imposed by existing industrial uses.

Dublin City Council, Fingal, Dún Laoghaire-Rathdown and South Dublin County Councils have prepared a Noise Action Plan, including noise maps for the Dublin Agglomeration 2008-2013. The noise mapping indicated that traffic congestion and movement were the issues of concern regarding noise pollution

and that the majority of noise occurs along the national, regional and distributor road network.

Increased amounts of private transport movements within the County are a significant concern. Lack of sustainable public transport linking settlements within the County has resulted in increased private car trips. Such linkages must be provided before public transport becomes a viable alternative to car trips. Reduction in private car movements will result in a reduction in air and noise pollution.

### **1.5.7 Material Assets**

#### **Waste Water.**

The treatment of wastewater is governed by the Urban Waste Water Treatment Directive (91/271/EEC) (amended by Directive 98/15/EEC). The Directive aims to protect the environment from the adverse effects of the wastewater discharges by ensuring that wastewater is appropriately treated before it is discharged to the environment.

Development of Wastewater Treatment Works (WwTw) within the Greater Dublin Area has not kept pace with construction or the amount of zoned lands.

Aside from some rural areas, almost all of the waste water in South Dublin is currently treated in Ringsend. The treated waters are treated to a Tertiary standard, which is in compliance with the Urban Wastewater Treatment Directive. These waters are discharged to Dublin Bay, which is a Natura 2000 site. The quality of the discharged waters is within the requirements of the Urban Waste Water Treatment Directive.

It is considered that the increased loading to WwTw as a result of implementing the Proposed Plan would be partially offset as a result of dropping loading in older parts of the county as well as reduced construction and occupation figures for new housing. It is noted that the results of the GSDS would be to increase the capacity of the WwTw at Ringsend to 2.14 million PE by 2014. It is

considered that there would be adequate capacity at Ringsend to accommodate growth within the county until the upgrade is complete in 2014.

Implementation of the five key policy initiatives as part of The Greater Dublin Strategic Drainage Study is vital to ensuring the ongoing sustainable development of the Greater Dublin Region. The policies are in the areas of New Development, Environmental Management, Climate Change, Inflow/Infiltration and Exfiltration and Basements.

### **1.5.8 Drinking Water**

Most of the treated water supply in South Dublin County is currently supplied from Dublin City Council via the Belgard Reservoir. South Dublin is part of the Regional Water Steering Group with Dublin City Council acting as lead authority in assessing short and long term sources at a regional level to ensure water supply into the future. In this regard, a Strategic Environmental Assessment is being carried out on a new major water source that would meet the long term needs of the Greater Dublin Area.

#### **1.5.8.1 Monitoring**

The Environmental Protection Agency (EPA) is now the supervisory authority over public water supplies and has new powers of enforcement over local authorities in this regard. The overall rate of compliance with water standards in South Dublin, 99.2%, was above the national average and the quality of water in South Dublin was in general good. Compliance with the microbiological, chemical and indicator parametric values was excellent. The County Council continually monitor of all known waste depository sites in the County in order to preserve sources of drinking water from contamination.

### **1.5.9 Energy and Transport Infrastructure**

#### **1.5.9.1 Public Transport**

In 2006 South Dublin County had the lowest percentage of people in the Dublin area travelling to work or school by train, Dart or

Luas. The percentage is surprisingly low given that the Luas red line to Tallaght commenced operation in Autumn 2004.

Until recently, buses have been the predominant form of public transport in South Dublin. Significant progress has been made in the last four years in relation to the provision of rail transport in the County. Major projects include the Luas Red Line, and Adamstown train station. The latter has been developed as part of the Kildare Route Project which is duplicating the rail line and introducing a new series of suburban commuter rail stations including Kishogue and Fonthill. Further enhancement of the Luas is underway at present with the extension to Citywest.

Fifty kilometres of Bus-lanes have been provided in the County since 2004, in addition to new bus routes to serve existing and newly developing areas. However, a lack of buses for the Dublin West area has resulted in inadequate local services, including connections between the main towns and district centres of South Dublin.

#### **1.5.9.2 Roads**

South Dublin is serviced by 847 km of Roads in total, categorised as follows: Two national primary routes the N4 and N7 traverse the county, and the busiest stretch of road in the country - the M50 between the Red Cow junction and the junction with the N4 is also in the county. A critical issue is that much of the traffic on these arteries is passing through and not stopping in the county.

New cycle tracks continue to be provided in conjunction with new road schemes. The cycle lane network in the County now extends to approximately 150 km. in length.

The need to increase the use of existing public transport, and provide for additional systems to accommodate existing and future growth of the county is a pressing priority.

#### **1.5.10 Cultural Heritage:**

The most important items of archaeological and architectural heritage in the county are recorded under Schedule 1- the Record of

Monuments and Places, and Schedule 2- the Record of Protected Structures, of the current Development Plan. There are 154 Recorded Monuments and 526 Protected Structures. The *National Inventory of Architectural Heritage (2002)* undertaken by Duchas and the Department of the Environment also highlights a representative sample of important architecture of the county.

There are five Architectural Conservation Areas (ACA) designated within the County. The ACAs offer protection to surrounding structures which combine to create a specific character, street pattern or layout which is worthy of recognition. The ACAs within the county are Clondalkin Village, Lucan Village, Palmerstown Lower (Mill Complex), Rathfarnham Village, including Willbrook and Tallaght Village. There are six zones of Archaeological Potential in the county located at Tallaght, Newcastle, Clondalkin, Lucan, Saggart and Rathcoole. Medieval village settlement patterns are evident in Newcastle, where a well preserved layout of a manor village with adjacent Rundale field systems is still evident.

#### **1.5.11 Climatic Factors**

Climate change is becoming the greatest challenge facing society today, an issue which affects all citizens at a local, national and international level. It is important that the Council, and its residents, act responsibly at a local level in order to assist in the reduction of greenhouse gas emissions. 'Agenda 21' and the 'Kyoto Protocol' set out visions for sustainable future development. Both frameworks require that local plans and procedures are established and implemented which allow for requisite reductions in greenhouse gas emissions.

In Ireland, agriculture is the single largest contributor to overall emissions, at 26.8% of the total, followed by energy (21.5%), transport (20.8%) and industry and commercial (17.9%). Agriculture and energy emissions decreased in 2007, while transport increased significantly. Between 1990 and 2007, transport has shown the greatest increase at 178%. This is as a result of

increased numbers and sizes of cars in addition to a greater reliance on cars, particularly in relation to commuting to work. Increased road transport of goods and construction traffic has also had a significant influence.

Increases in global temperature will have a number of effects on Ireland. In the context of South Dublin, it is can be expected that winter and summer temperatures will increase leading to greater amounts of water vapour in the atmosphere, which in turn leads to greater levels of precipitation, especially in winter. High rates of rainfall and run-off will increase the chances of flooding events

The two single greatest issues facing South Dublin relating to climate change relate to increased amounts of greenhouse gas emissions from transport movements and the danger posed by flooding events. Solutions require reductions in unsustainable transport movements and the amelioration of potential flooding events. South Dublin County Council has prepared the 'Draft Climate Change Strategy' for South Dublin indicating sustainable measures relating to planning, energy, transport, waste management and ecosystems, to be undertaken and promoted by the County Council.

Sustainable development within the County requires an integrated approach regarding sustainability and environmental performance. At the County level, projects such as Adamstown and Clonburris SDZs are being promoted which ensure development takes place utilising best practice for development which surpasses required Irish standards, and sets ambitious yet ultimately achievable targets.

#### **1.5.12 Identified Data Gaps within the Baseline Information**

There are still a number of data gaps in the Baseline information. These are detailed below;

- The lack of a Biodiversity Plan for South Dublin.

- An incomplete Landscape Character Assessment for South Dublin.
- A lack of information regarding floodplains and flood risk areas.

A Heritage Plan is at present being undertaken for South Dublin and will be finalised by late 2009. Some, though not all, of the information gaps caused by the absence of a Biodiversity Plan and a detailed Landscape Character Assessment will be addressed in the Heritage Plan. Detailed information concerning floodplains will become available following the completion of Catchment Flood Risk Assessment Management Studies (CFRAMS) the River Dodder and the River Liffey. A Biodiversity Plan will be initiated in late 2009 and finalised in 2010.

### **1.5.13 The likely evolution of the environment without the implementation of the Plan**

In the absence of a County Development Plan development would occur on Greenfield lands to the west and south and within the environmentally sensitive upland and mountain areas rather than consolidating the existing built up area. This will create an edge city effect in South Dublin. It is likely that the populations would decline with the reduction in occupancy per dwelling and the flight to the edge of or outside the county.

The concentration of development in the south and west of the County would have negative impacts on biodiversity including the designated Special Areas of Conservation, the proposed Natural Heritage Areas and ecological networks. Extractive Industries would be likely to expand to take advantage of the large deposits of easily accessible sand, gravel and stone. This would take place in both the uplands and lowlands, resulting in the removal of large quantities of a non-renewable soil and sub-soil resource. Lack of monitoring of extinct landfill sites could lead to serious pollution of waterways.

Lack of planning restrictions will lead to impact upon soils through fragmentation of habitats and the development in riparian zones. It is probable that farming within the County as a

whole would become fragmented, with less maintenance of farm hedgerows and buildings, and the creation of smaller holdings, resulting in a more degraded rural landscape.

Collection of waste and the meeting of targets regarding recycling would be made more difficult due to the more dispersed nature of development within the county. There would be no framework for the efficient development of the required waste and drinking water infrastructure within the county and the lack of guidance regarding efficient use of capital infrastructure and the location of development would not allow for the most effective use of these long term infrastructure projects.

Based on the current risk assessment - and in the absence of any intervening measures - none of the water bodies in South Dublin would be likely to meet their commitments under the EU Water Framework Directive. Flood plains within South Dublin Would are likely to come under pressure for development.

In the absence of a County Development Plan, proposals for the creation of high quality public transport corridors would be more difficult to implement. Increased travel by private transport will increase emissions to air (including the amount of greenhouse gases), as well as increasing noise impacts upon new and existing residential communities. The lost opportunities in energy conservation and planning would also contribute to the possibilities of Climate Change.

### **1.6 Strategic Environmental Protection Objectives**

The Draft Plan is subject to a number of high level national, international and regional environmental protection policies and objectives. A series of Strategic Environmental Objectives (SEO's), see table below, have been derived from these sources which cover the range of environmental aspects and reflect a local dimension.

Examples of Strategic Environmental Objectives include the aim of the EU Habitats

Directive - which is to contribute towards ensuring bio-diversity through the conservation of natural habitats and of wild fauna and flora in the European territory of Member States – and the purpose of the Water Framework Directive - which is to establish a framework for the protection of

inland surface waters, transitional waters, coastal waters and groundwater. The strategy and policies in the Development Plan must be consistent with these objectives and the Plan must be capable of implement these objectives at the County and local level.

<b>SEO Code</b>	<b>Strategic Environmental Objectives (SEO)</b>
<b>B1</b>	To avoid loss of relevant habitats, geological features, species or their sustaining resources in designated ecological sites
<b>B2</b>	To avoid significant adverse impacts, including direct, cumulative and indirect impacts, to relevant habitats, geological features, species or their sustaining resources in designated ecological sites by development within or adjacent to these sites
<b>B3</b>	To sustain, enhance or - where relevant - prevent the loss of ecological networks or parts thereof which provide significant connectivity between areas of local biodiversity
<b>HH1</b>	To protect human health from hazards or nuisances arising from traffic and incompatible landuses
<b>S1</b>	To maximise the sustainable re-use of brownfield lands and the existing built environment, rather than developing greenfield lands
<b>S3</b>	To minimise waste production and reduce the volume of waste to landfill and to operate sustainable waste management practices.
<b>W1</b>	To maintain and improve, where possible, the quality of rivers, lakes and surface water
<b>W2</b>	To prevent pollution and contamination of ground water
<b>W3</b>	To prevent development on lands which pose - or are likely to pose in the future – a significant flood risk
<b>C1</b>	To minimise increases in travel related greenhouse emissions to air
<b>C2</b>	To reduce car dependency within the County by way of, inter alia, encouraging modal change from car to more sustainable forms of public transport and encouraging development which will not be dependent on private transport
<b>M1</b>	To serve new development under the CDP with appropriate waste water treatment
<b>M2</b>	To maintain and improve the quality of drinking water supplies
<b>CH1</b>	To protect the archaeological heritage of South Dublin with regard to entries to the Record of Monuments and Places - including Zones of Archaeological Potential - and the context of the above within the surrounding landscape where relevant
<b>CH2</b>	To preserve and protect the special interest and character of South Dublin’s architectural heritage with regard to entries to the Record of Protected Structures, Architectural Conservation Areas, and their context within the surrounding landscape where relevant
<b>L1</b>	To protect and avoid significant adverse impacts on the landscape, landscape features and designated scenic routes; especially with regard to areas of high amenity, the Dublin Mountain Area, and the Liffey and Dodder Valleys

<sup>1</sup> Strategic Environmental Objectives (SEOs) are methodological measures which are developed from international, national and regional policies which generally govern environmental protection objectives and against which the environmental effects of the Draft Plan can be tested. The SEOs are used as standards against which the development strategies, policies and objectives of the Draft Plan can be evaluated in order to help identify areas in which significant adverse impacts are likely to occur, if unmitigated against.

## **1.7 Description of Alternatives**

The evaluation of the likely environmental consequences of a range of alternative strategies for accommodating future development in the South Dublin area is part of the SEA process. The scenarios are derived taking into account higher level strategic plans as well as the geographical scope of the area. The Regional Planning Guidelines for the Greater Dublin Area 2004-2016 (RPG-GDA) provide an overall strategic settlement context for the Development Plans of each local authority in the GDA.

The scenarios provide alternative visions of how the future development of South Dublin might occur. These are neither predictions nor preferences - instead they offer a range of plausible and internally consistent narratives of the outcome of different planning and development strategies. They reflect a range of development pressures and responses that reflect current practice.

Scenario 1 Environmental / Preservation Approach

Scenario 2 Sustainable/Selective Concentration

Scenario 3 Weak Planning/Market-led Growth

Scenario 4 Combination of Reactionary Planning and Market-led Approach

Overlay mapping of a range of GIS based environmental layers was used as a means of generating an Environmental Sensitivities Map for South Dublin. This map was an additional aid in determining the environmental consequences for the four scenarios Alternatives (the derivation of the GIS based sensitivity map for the County involved considerable resources in time, data collection and mapping).

### **1.7.1 Scenario 1 – Environmental / Preservation Approach**

The entire County would be subject to policies providing for the conservation and protection of the existing built and rural environment. Limited brown-field development would be allowed in the Town Centres, District Centres, urban and rural Villages. This scenario would

involve the adoption of planning policies which seek to maintain the status quo. Development under this scenario would be pushed out beyond the administrative boundary and there would be a decline in traditional employment within the County.

### **1.7.2 Scenario 2 – Sustainable/ Selective Concentrations Approach**

In this scenario the components of sustainable development – economic development, social well-being, environmental protection and enhancement, and resource conservation are integrated in the Plan. Allowance is made in this scenario for some trade off between development and environmental protection with mitigation measures ameliorating any negative environmental impacts.

Under this scenario, Key Development Areas would be developed / redeveloped to accommodate a higher level of new urban development and deliver the maximum quantitative efficiency of new population density and commercial floorspace. With the larger quantum of mixed use development targeted at the Key Development Areas, other areas, including existing residential areas, would experience development relative to their carrying capacity. Rural Villages would maintain and expand their service function for the surrounding rural areas while providing for the natural growth of the existing community. In the rural area, valuable agricultural land would be protected from pressures for development not associated with agriculture and rural activities. The more environmentally sensitive parts of the County will be protected.

### **1.7.3 Scenario 3 – Weak Planning / Market-led Approach**

This Scenario would be characterised by a weak planning approach to development within the County with a flexible overall development strategy and an emphasis on market-led growth, maximising growth in the County.

The growth envisaged in the Regional Planning Guidelines would be incorporated

along with a more ad-hoc approach to development proposals with little regard to environmental protection. The relaxation of planning controls throughout the County would create a situation where favorable consideration would be given to higher density development in all areas with less weight given to existing residential or architectural character or environmental amenity. The scenario would be likely to result in a dispersed pattern of growth with sporadic pockets of high density development scattered throughout the County in the existing developed areas and in green-field areas adjoining the existing built-up areas.

#### **1.7.4 Scenario 4 – Combination of Reactionary Planning and Market-led Approach**

This Scenario would be characterised by a reactionary and negative planning approach to development within the existing built up areas in the County but with a flexible market-led development approach along the edge of the built up areas.

The growth envisaged in the Regional Planning Guidelines would be predominantly accommodated in a further expansion of suburban sprawl engulfing the rural villages of Newcastle, Saggart and Rathcoole. The absence of renewal and revitalization based on the existing concentrated growth areas would contribute to further population loss, an underutilization of existing infrastructure and an undermining of existing economies of scale thereby reducing the possibilities of sustainable development. Again, there would be fewer restrictions in place for the development of individual dwellings in the mountain and rural areas outside of settlements and little consideration would be given to the mountain and rural character of the County.

### **1.8 Evaluation of Alternative Plan Scenarios**

The Alternative Scenarios were examined under the three processes of Map Overlay (Environmental Sensitivity Analysis),

comparison with the Environmental Baseline and evaluation against the Strategic Environmental Objectives. The evaluation under each of the three methods used has indicated Scenario 2 as the preferred option.

While Scenario 1, (the environmental /preservation approach), does give rise to the least level of direct, short-term beneficial environmental effects (although also results in significant negative indirect impacts), in the medium to long-term Scenario 2 is more likely to bring about better environmental outcomes because of its ability to bring about both controlled growth and the necessary growth to capitalise important environmental mitigation measures. Scenario 3 and 4, which include the accommodation of major development on Greenfield land at the edge of the present conurbation, would result in a range of environmental conflicts including biodiversity, water quality, landscape character and climate change (an increase in the number of unsustainable private vehicle journeys with a decrease in public transport journeys giving rise to an increase in greenhouse gases).

The Draft County Development Plan that has emerged from the Plan preparation process has a close correlation to Scenario 2 with an additional element from Scenario 3 i.e. the proposed development of an amount of Greenfield land. The proposal to rezone this green-field land relates directly to the overall strategy of Scenario 2 which is one of consolidation. The opportunity to utilize land that is currently underutilized at present in the Employment and Enterprise zones but that adjoins either well serviced Town and District Centres or is well served by public transit infrastructure is dependant on land being available for the relocation of suitable uses i.e. uses with a high floorspace per employee and a low traffic generation factor. Mitigation of impacts can be provided.

In summary, Scenario 2 represents a pragmatic recognition of the need to continue to accommodate and control growth in the South Dublin County Council area while providing for environmental protection and enhancement.

### **1.9 Mitigation Measures**

Mitigation measures are measures envisaged to prevent, reduce and, as fully as possible, offset any significant adverse impacts on the environment of implementing the Development Plan. Mitigation involves ameliorating significant negative effects. Where there are significant negative effects, consideration is given in the first instance to preventing such effects or, where this is not possible for stated reasons, to lessening or offsetting those effects. Mitigation measures can be roughly divided into those that: avoid effects; reduce the magnitude or extent, probability and/or severity of effects; repair effects after they have occurred, and compensate for effects, balancing out negative impacts with other positive ones. The mitigation measures may be incorporated into the briefing of design teams as well as the subsequent design, specification and development management of the landuses to be accommodated within the Plan area.

Mitigation measures are recommended in the Environmental Report for the following topics:

- Biodiversity and Flora and Fauna
- Water Protection
- Waste Water
- Drinking Water
- Flooding
- Soil and Contamination
- Cultural Heritage
- Landscape
- Air and Noise
- Transportation
- Waste Management

### **1.10 Monitoring**

The SEA Directive requires that the significant environmental effects of the implementation of plans and programmes are monitored. The Environmental Report puts forward proposals for monitoring the Plan which are adopted alongside the Plan. Monitoring enables, at an early stage, the identification of unforeseen adverse effects and the undertaking of appropriate remedial action. In addition to this, monitoring can also play an important role in assessing whether the Development Plan is achieving its environmental objectives and targets - measures which the

Development Plan can help work towards - whether these need to be re-examined and whether the proposed mitigation measures are being implemented.

The Environmental Report identifies indicators - which allow quantitative measures of trends and progress in the environment over time. Measurements for indicators come from a range of existing monitoring sources and from a series of meaningful indicators that could be derived from the Development Management system. A preliminary monitoring evaluation report on the effects of implementing the Development Plan will be prepared within two years of the making of the plan. The Council is responsible for collating existing relevant monitored data, the preparation of a monitoring report, the publication of this report and, if necessary, the carrying out of corrective action.