

# Clonburris

## Proposed SDZ Planning Scheme & Proposed Local Area Plan

### Environmental Report

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August 2007



Non-Technical Summary

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# **Strategic Environmental Assessment of the Clonburris SDZ/LAP Planning Framework.**

## **Non Technical Summary of Environmental Report**

### **BACKGROUND**

The EU Directive 2001/42/EC on Strategic Environmental Assessment was passed into Irish law by means of the Planning and Development (Strategic Environmental Assessment) Regulations 2004. The Directive requires all European Union member states to systematically evaluate the likely significant effects of implementing a plan or programme prior to its adoption.

SEA aims to provide for more sustainable development through the methodical appraisal of policy options, considering alternative means of developing an area, by raising awareness of the environmental impacts of plans and the inclusion of quantifiable targets and indicators.

Considering the scale of the site at Clonburris along with its strategic location at the junction of the Dublin-Kildare railway line and Metro West, it is considered that a combined Strategic Development Zone (SDZ) and Local Area Plan (LAP) planning framework is the most appropriate method for managing future development. The Planning and Development Regulations 2002 (Amended) require that *all* Strategic Development Zones require an SEA. Any Local Area Plan being prepared for a town with a population in excess of 10,000 persons must also be accompanied by an SEA. As any development on the SDZ/LAP area would be considered as part of an overall planning framework, it was decided to produce an SEA document which would cover the whole of the SDZ/LAP site

The Environmental Report documents the application of SEA to the Clonburris SDZ/LAP planning framework and considers the likely significant effects on the environment of implementing the Plan. The purpose of this Non-Technical Summary is to ensure that the key issues and findings of the Environmental Report can be readily understood.

### **METHODOLOGY**

The Environmental Report describes the environmental assessment process which was applied to the Clonburris SDZ/LAP planning framework. The SEA process commenced in August 2006 and involved a scoping exercise to discover issues of relevance to the site. The scoping exercise was under taken with the relevant statutory agencies and a number of non-statutory community groups. The Environmental Report describes the existing baseline environment on the site and the scoping exercise. The baseline data collection stage involved research into environmental indicators (or topics). This encompassed the following issues: biodiversity, flora and fauna, population, human health (air & noise), soil and water, material assets, traffic & transportation, cultural heritage, landscape & townscape. In some areas the exercise identified a lack of local, County and sometimes National data. Where gaps in information were identified, this is recorded in the report.

The Environmental Report also considers the relationship between the SDZ/LAP planning framework and other plans and policies and assesses the impact of its objectives and strategies. The planning framework is considered to be compliant with National and Regional guidance such as the National Spatial Strategy 2002-2016 and the Regional Planning Guidelines 2004-2016 among others. This exercise required the formulation of environmental protection objectives prior to assessment of the environmental baseline in accordance with the Department of Environment, Heritage and Local Government Guidelines, “*Assessment of the Effects of Certain Plans and Programmes on the Environment*” and the Environmental Protection Agency Guidelines entitled “*Development of Strategic Environmental Assessment Methodologies for Plans and Programmes in Ireland*”.

The environmental protection objectives were refined into strategic development objectives after the assessment of issues raised during research into the environmental baseline of the site. The strategic development objectives assisted the first stages of assessment of the development alternatives in order to fully integrate sustainability objectives into the policymaking process.

### **BASELINE INFORMATION**

The SEA Environmental Report indicates that there is a good collection of baseline data for the Study Area. This information has been devised from statutory agencies, internal departments in the Council, the internet, local groups & publications, and Environmental Impact Statements submitted with planning applications. A Traffic Study from JMP Transport Consultants, and a retail study from DTZ Piedad were commissioned by South Dublin County Council to help inform the plan.

### **CONSIDERATION OF ALTERNATIVES**

As part of the SDZ/LAP planning framework process a range of alternatives were considered for the development of Clonburris and are detailed in the Environmental Report. All 4 no. options assume delivery of 4 no. rail tracks on the Dublin-Kildare railway line and Metro West. The 4 no. options are as follows:

*Option 1:* This includes the development of the lands as zoned under the South Dublin County Council Development Plan 2004-2010. The Development Plan proposes an ‘A1’ zoning for the development of new residential communities subject to the preparation of a LAP, and a ‘DC’ zoning to allow for the development of District Centre facilities. Additional areas are also zoned for development of existing residential communities and the provision of open space. This option presumes that increased densities will be possible around the Fonthill and Kishoge train stations, but the otherwise the level of development will generally continue as previously experienced. Development could include 7-10,000 residential units, 20,000 sqm of retail floorspace and 50-60,000sqm of employment floorspace.

*Option 2:* This option allows for medium density development under the SDZ/LAP planning framework. A detailed Planning Scheme will be provided as well as a Local Area Plan, along with phased development of public facilities in tandem with residential and other development. Development will be phased to coincide with public transport improvements with high density development around public transport nodes. It is projected that development could include between 10-11,000 residential

units, 40-50,000 sqm of retail floorspace and 150,000-170,000 sqm of employment floorspace.

*Option 3:* This option allows for medium-high density development under the SDZ/LAP planning framework. A detailed Planning Scheme and LAP will be provided, along with phased development of public facilities in tandem with residential and other development. Development is to be phased to coincide with public transport improvements with high density development around public transport nodes. It is projected that development could include 15-16,000 residential units, 60-65,000 sqm of retail floorspace and 160-180,000 sqm of employment floorspace.

*Option 4:* This option allows for high density development under the SDZ/LAP planning framework. A detailed Planning Scheme and LAP is to be provided, along with phased development of public facilities in tandem with residential and other development. Development is to be phased to coincide with public transport improvements with high density development around public transport nodes. It is projected that development could include 20-21,000 residential units, 70-75,000 sqm of retail floorspace and 180-200,000 sqm of employment floorspace.

Each option was considered and assessed against the Sustainable Development Objectives to provide an insight into possible impacts.

### **ENVIRONMENTAL ASSESSMENT OF SELECTED OPTION**

Option 3 presented the most favourable form for managing the development of the Eco-District of Clonburris. This option was then elaborated further. The range of policies/strategies devised under Option 3 were further discussed to ascertain compliance with the sustainable development objectives. This exercise illustrated that the majority of the objectives and strategies identified in the SDZ/LAP planning framework were found to have either a positive impact or no impact when assessed. This exercise highlighted the requirement for mitigation measures where requirements for further management and monitoring were identified.

### **MITIGATION MEASURES**

The SEA process indicates that a number of mitigation measures are required. These measures range from infrastructural measures to policy changes. Briefly, these measures include the following:

#### *Bio-diversity, Flora & Fauna.*

- A detailed management and maintenance regime for the Grand Canal to accommodate amenity and environmental needs.
- A detailed landscape masterplan to establish a network of green spaces.

#### *Population.*

- A Social and Affordable Housing strategy for Clonburris to effectively implement varied housing needs.

#### *Human Health Air & Noise.*

- Measures to minimise the creation and impact of air and noise pollution at the construction and post-construction stages of development.

#### *Soil & Water.*

- Measures to ensure that surface water run-off does not enter the Grand Canal.
- Measures to protect existing soil structure where possible.

#### *Sustainability.*

- Establishment of a Sustainable Management and Appraisal Committee to provide detailed monitoring and review of designs and application and provide feedback to continually improve sustainability of Clonburris.

#### *Transportation & Traffic.*

- Promotion and improvement of public transport usage through detailed transport management strategies.

#### *Waste Water & Water Supply.*

- Reduction of water usage and implement grey-water networks at all stages of development.

#### *Solid Waste Collection and Disposal.*

- Establishment and implementation of targets for domestic and construction waste reduction and recycling.

#### *Information and Communications Technology.*

- Measures to ensure underground networks do not impinge on identified areas of habitat importance.

#### *Cultural Heritage.*

- Measures to ensure development of the site does not unnecessarily impact on archaeological heritage.

#### *Landscape & Townscape.*

- Monitoring of the development to ensure it takes place in accordance with the approved planning framework and the principles of urban design.
- 

### **MONITORING**

Article 10 of the SEA Directive requires that monitoring be carried out in order to identify at an early stage any unforeseen adverse effects due to the implementation of the planning framework, and to be able to take remedial action. In this context, the Council proposes to establish the Clonburris Development Management Committee.

It is intended that a monitoring report on the implementation of the SDZ/LAP planning framework be prepared annually.

### **CONCLUSION**

The application of the Strategic Environmental Assessment exercise to the SDZ/LAP has ensured that the proposed planning framework will provide the optimal strategic framework for the future sustainable development of the Clonburris area.

# **Strategic Environmental Assessment of the Clonburris SDZ/LAP Planning Framework.**

## **1. Introduction.**

### **1.0 Introduction and Terms of Reference**

South Dublin County Council have prepared a draft Strategic Development Zone Planning Scheme and Local Area Plan. Both plans cover the whole area of one large strategic site. This Environmental Report is a strategic appraisal of the environmental effects of the plan preparation.

The following report has been prepared to comply with the provisions of the SEA Regulations [the European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 (S.I. 435 of 2004), and, the Planning and Development (Strategic Environmental Assessment) Regulations 2004 (S.I. 436 of 2004)]. This report should be read in conjunction with the Proposed Clonburris Strategic Development Zone (SDZ) and Local Area Plan (LAP).

### **1.1 Legislation and Legal Status Of The SEA.**

Strategic Environmental Assessments (SEA's) are carried out in response to the requirements of the European Community Council Directive of 2001 on the Assessment of the Effects of Certain Plans and Programmes on the Environment, Directive 2001/42/EC, which came into effect on July 21, 2004. The enabling statutory instruments (S.I.'s) which transpose these Directives into law in Ireland are the European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 (S.I. 435 of 2004), and the Planning and Development (Strategic Environmental Assessment) Regulations 2004 (S.I. 436 of 2004).

The European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 (S.I. 435 of 2004) amended certain provisions of the Planning and Development Act 2000 in order to provide the statutory basis for the transposition of the Directive in respect of land-use planning. These amendments facilitated the making of the Planning and Development (Strategic Environmental Assessment) Regulations 2004 (S.I. 436 OF 2004) which give effect to the SEA Directive in the land-use planning sector. The preparation of Local Area Plans where the population of the area of the LAP is to be 10,000 persons or more, or/and the preparation of any SDZ Planning Scheme are required to undergo a Strategic Environmental Assessment under Article 14 (B) & 179 (A) of S.I. 436 of 2004.

The information to be contained in the SEA Report, or the Environmental Report, is set out in Annex I of the Directive, Article 7 (13) (N) OF S.I. 436 of 2004 and Schedule 1 of S.I. 435 of 2004.

This SEA has also been undertaken having regard to, where relevant, the Department of Environment, Heritage and Local Government's Implementation of SEA Directive



(2001/42/EC): Guidelines for Regional Authorities and Planning Authorities (DOELG, 2004).

## **1.2 Relationship with Existing Plans and Strategies**

The Proposed Clonburriss Plan has been guided by a hierarchy of plans and strategies at the EU, local, national and EU levels. These plans and strategies include:-

### **International Plans.**

- Habitats Directive (Council Directive 92/ 43/EEC).
- Birds Directive (Council Directive 79/409/EEC).
- Water Framework Directive (Council Directive 2000/60/EC).
- The Air Quality Framework Directive; (Council Directive 96/62/EC).
- European Union: 6<sup>th</sup> Environmental Action Programme (2001-2010).

### **National Plans.**

- Wildlife Act 1976.
- Wildlife (Amendment) Act 2000.
- Air Quality Standards Regulations 2002.
- Ozone Regulations 2004.
- National Biodiversity Plan (2002).
- National Spatial Strategy (2002-2020).
- National Development Plan 2006-2012.
- Housing Policy Framework-Building Sustainable Communities.
- Delivering Homes, Sustaining Communities.
- Telecommunications Antennae and Support Structure-Guidelines for Planning Authorities' (1996).
- Residential Density Guidelines (2000).
- National Heritage Plan (2002).
- Architectural Heritage Protection, Guidelines for Planning Authorities (2004).
- National Climate Change Strategy (2007-2012).
- Retail Planning Guidelines for Planning Authorities (2005).
- Government White Paper on Sustainable Energy. 2007-2020.

### **Regional Plans**

- Regional Planning Guidelines for the Greater Dublin Area 2004-2016.
- Greater Dublin Strategic Water Supply Study.
- Greater Dublin Strategic Drainage Study.
- Dublin Waste Management Plan (DWMP).
- Dublin Transportation Office, A Platform for Change.

### **Local Plans.**

- South Dublin County Development Plan 2004-2010.
- Survey of Architectural Heritage of South Dublin.

Table 1.1 below details the various aspects of development proposed within the Proposed Plan, along with the corresponding national, regional and local documents which were taken into account in the overall urban structure of the Planning Scheme and Local Area

Plan. For example, proposing higher densities of residential and mixed use development in close proximity to railway stations complies with policies contained within the County Development Plan, A Platform for Change, The Retail Planning Guidelines and the Residential Density Guidelines. In this manner, it is possible to see, at a glance how the proposed forms of development at Clonburrish relate to policies and strategies concerning sustainable development.

**Table 1.1. Proposed Plan development/Correspondence with Existing Plans and Strategies**

<b>Key Aspects of the Proposed Plan.</b>	<b>Correspondence with Objectives of Existing Plans</b>
Medium to high density, high design quality, mixed use urban District Centre adjacent to Metro/Intercity/Suburban Rail Station at Fonthill.	National Spatial Strategy Regional Planning Guidelines County Development Plan 2004-2010 A Platform for Change (DTO) Retail Planning Guidelines Residential Density Guidelines
Medium to high density, high design quality, mixed use urban quarter adjacent to Suburban Rail Station at Kishoge.	National Spatial Strategy Regional Planning Guidelines County Development Plan 2004-2010 A Platform for Change (DTO) Retail Planning Guidelines Residential Density Guidelines
Employment Generating Areas in proximity to rail stations/within overall Strategic Development Zone/Local Area Plan lands.	National Spatial Strategy Regional Planning Guidelines County Development Plan 2004-2010 A Platform for Change (DTO) ESRI Medium Term Review 2005
Strategic opportunity site to be located within walking distance of metro/rail station at Fonthill.	National Spatial Strategy Regional Planning Guidelines County Development Plan 2004-2010 A Platform for Change (DTO) (National Sporting strategy) (National tourism strategy)
Regional Retail Offering within District Centre.	Retail Planning Guidelines Regional Planning Guidelines County Development Plan 2004-2010 A Platform for Change
Medium density residential development interspersed with nodal local facilities within 1km walkband of Kishoge and Fonthill railway stations.	National Spatial Strategy Regional Planning Guidelines County Development Plan 2004-2010 A Platform for Change (DTO)

	Retail Planning Guidelines Residential Density Guidelines
Preservation of the Grand Canal and other ecological habitats.	County Development Plan 2004-2010 National Biodiversity Strategy
Hierarchy of open space ranging from regional to local parks and semi-private and private opens space.	County Development Plan 2004-2010 National Biodiversity Strategy

### 1.3 Conformity With SEA Regulations

This report has been written in accordance with Schedule 2B of the Planning and Development Regulations 2004. The table below is a reproduction of checklist of ‘information to be contained in Environmental Report’ from the ‘Implementation of SEA Directive (2001/42/EC): Guidelines for Regional Authorities and Planning Authorities, DOEHLG 2004’(Table 4A), and lists required information and displays relevant sections of this report.

**Table 1.2. Information Required and Corresponding Section of this Report**

<b>Required Information</b>	<b>Corresponding Section of this Report</b>
(A) Outline of the contents and main objectives of the plan, and of its relationship with other relevant plans and programmes.	Sections 1, 2, 3 & 4, & Section 6.1
(B) Description of relevant aspects of the current state of the environment and the evolution of that environment without implementation of the plan.	Section 4.6 Sections 5.1-5.17 Section 7.1 & 7.3
(C) Description of the environmental characteristics of areas likely to be significantly affected.	Sections 5.1-5.17 Sections 7.1-7.4
(D) Identification of any existing environmental problems which are relevant to the plan, particularly those relating to European protected sites.	Section 4.3-4.4 Sections 5.1-5.17
(E) List environmental protection objectives, established at international, EU or national level, which are relevant to the plan and describe how those objectives and any environmental considerations have been taken into account when preparing the plan.	Sections 4.1-4.6 Sections 5.1-5.17 Section 6.1
(F) Describe the likely significant effects (1) on the environment (Biodiversity, human health, Fauna, etc.).	Sections 5.1-5.17 Sections 6.1 Section 7.

(G) Describe any measures envisaged to prevent, reduce and as fully as possible offset any significant adverse environmental effects of implementing the plan.	Section 6.1, Section 7.2, Chapter 9.
(H) Give an outline of the reasons for selecting the alternatives considered, and a description of how the assessment was undertaken (including any difficulties).	Sections 4.5-4.6 Section 7, Section 8.
(I) A description of proposed monitoring measures.	Section 10.
(J) A non-technical summary of the above Information.	To front of document.
(F) Interrelationships between each environmental topic.	Addressed as it arises in Section 5, 6, 7, 8.

## **2. Methodology**

### **2.1 Introduction**

This section outlines the methodology used in preparing the SEA for the Proposed Clonburris Plan. Part of the lands were designated as a Strategic Development Zone by the Minister of the Environment, Heritage and Local Government on the 31<sup>st</sup> of July 2006 (see appendix A). The reasons for undertaking the SEA and the level of detail contained in this report are described. In addition statutory consultation with Environmental Authorities, methods used and the difficulties encountered in undertaking the SEA process are also outlined in this section.

### **2.2 Screening of the Proposed Clonburris Plan.**

As part of the process of preparing a proposed SDZ/LAP for the Clonburris lands, and having regard to the Planning and Development (Strategic Environmental Assessment) Regulations 2004 (S.I. No. 436 of 2004), South Dublin County Council has considered whether to carry out Strategic Environmental Assessment (SEA) on the proposed plan area. The assessment of the issue was based on the criteria set down in the SEA Guidelines and Annex II of the SEA EU Directive for determining likely significance of environmental effects.

The screening of the relevant legislation and guidelines determined that SEA was mandatory on the proposed SDZ and LAP lands at Clonburris due to issues of size, nature and scope of development. All lands designated as an SDZ must submit an Environmental Report under Article 11 of S.I. No. 436 of 2004 (SEA Regulations). Article 14b of S.I. 436 of 2004 (SEA Regulations) also states that all LAPs with a proposed population of 10,000 persons or more must prepare an Environmental Report.

### **2.3 Scoping of the SEA for the Proposed Clonburris Plan.**

Following the screening process, a scoping report was prepared to determine the scope and the level of detail to be included in the environmental report (see copy Appendix B). The scoping report was prepared having regard to Annex I of the SEA Directive, which sets out the topic headings which must be evaluated for purposes of SEA. Consultation with the EPA also informed the scoping of the environmental report. The environmental assessment carried out in this report evaluates the topics as set out in the Clonburris proposed SDZ/LAP screening report.

### **2.4 Consultation with Environmental Authorities**

The SEA Directive specifies in Article 6(3) that “member states shall designate the authorities to be consulted”. The Environmental Protection Agency (EPA) has been designated as an environmental authority that must be consulted by competent authorities while screening for or conducting an SEA in the Republic of Ireland.

In the case of the Proposed Clonburris Plan, the Department of the Environment, Heritage and Local Government (DoEHLG) and the Department of Communications, Marine and Natural Resources (DoCMNR) were required to be consulted in addition to



the EPA on the scoping of the SEA. This was done in accordance with Articles 9.5 (a), (b) & (c) of S.I. 436 of 2004. Copies of the scoping report and cover letter are enclosed in appendix B.

The indicative list of ‘Nature Conservation Objectives’ drafted by the Department of the Environment, Heritage and Local Government to be considered is detailed below.

‘Nature Conservation Objectives’.

- Examine the impacts on the wetland and hedgerow habitats and the Grand Canal pNHA along with the flora and fauna that inhabit them.
- Protect retain and enhance biodiversity generally.
- Riparian zones and floodplains beside rivers, ditches and streams should be left intact.
- Assess effects of development upon backwater channels associated with the Grand Canal.
- Assess otter usage of the Canal, boundary ditches, backwaters and holt locations in the north facing embankment.
- A generous buffer zone is to be maintained adjacent to the Grand Canal the size and length of which is to be decided by ecological assessments.
- Assess and protect any bat populations.
- Establish existence of and protect examples of *Groenlandia densa* *Opposite-leaved Pondweed*.
- Conservation of biological diversity (not confined to protected species).

## **2.5 Environmental Assessment Methods and Difficulties Encountered**

Preparing the SEA involved the collation of currently available data from existing public documents in accordance with the SEA Guidelines (Section 4.8). These public documents include published books and studies, EIS documents submitted with planning applications and information from Government sources and departments. Some primary research was carried out in the course of creating the Proposed Clonburris Plan documents which was then used in the SEA. Where new baseline data was not provided as a result of the proposed SDZ/LAP process, existing data sources were used as baseline data, then projected additional environmental ‘loading’ was inserted to make predictions on the potential impacts of implementing the Strategic Development Zone/Local Area Plan. Existing data was not always available at the appropriate scale for the Proposed Clonburris Plan area, so a mix of local, county and regional baseline data has been used.

The development envisaged as arising as a result of the implementation of this Local Area Plan is described using ‘Scenarios’ in Section 4.3 following. These allow a range of outcomes to be considered in terms of land-use and resultant site population. Thus different land use scenarios can be tested against their performance in strategic and operational terms.

A diagram indicating the development of the SEA document from scoping to completion has been included below.

**Table 2.1. Methodology of Environmental Report.**

<b>Action.</b>	<b>Notes.</b>
1. Screening.	An environmental report must be produced for an SDZ/LAP.
2. Scoping.	Scoping report prepared.
3. Consultation with Environmental Authorities and local groups.	Report sent to:- <ul style="list-style-type: none"> <li>• Environmental Protection Agency.</li> <li>• Dept. of Environment, Heritage &amp; Local Government.</li> <li>• Dept. of Communications, Marine &amp; Natural Resources.</li> </ul>
4. Comments received.	Comments incorporated into scoping.
5. Research into:- <ul style="list-style-type: none"> <li>• Legislation &amp; Policies.</li> <li>• Baseline information.</li> </ul>	
6. Produce Environmental Protection objectives from legislation & policies research to guide SDZ/LAP Masterplan. Detail 4 No. development options.	<ul style="list-style-type: none"> <li>• Option 1. Development Plan based.</li> <li>• Option 2. SDZ/LAP based. Mid density.</li> <li>• Option 3. SDZ/LAP based. Mid-high density.</li> <li>• Option 4. SDZ/LAP based. High density.</li> </ul>
7. Feedback from ongoing Plan preparation process & EPA.	
8. Produce Specific Development Objectives.	Produced from:- <ul style="list-style-type: none"> <li>• Environmental baseline data,</li> <li>• Public consultation issues</li> <li>• Feedback.</li> </ul>
9. Test Environmental Protection Objectives & Specific Development Objectives for compliance.	
10. Assess 4 no. development options for compliance with Specific Development Objectives.	Favoured option indicated.
11. Favoured option assessed.	
12. Mitigation measures detailed.	
13. Monitoring measures detailed.	



The lands were rezoned in the Dublin County Development Plan 1972 from agricultural use to residential, industrial and commercial/retail uses with areas of open space designated between the railway line and the canal (see figure 3.2)

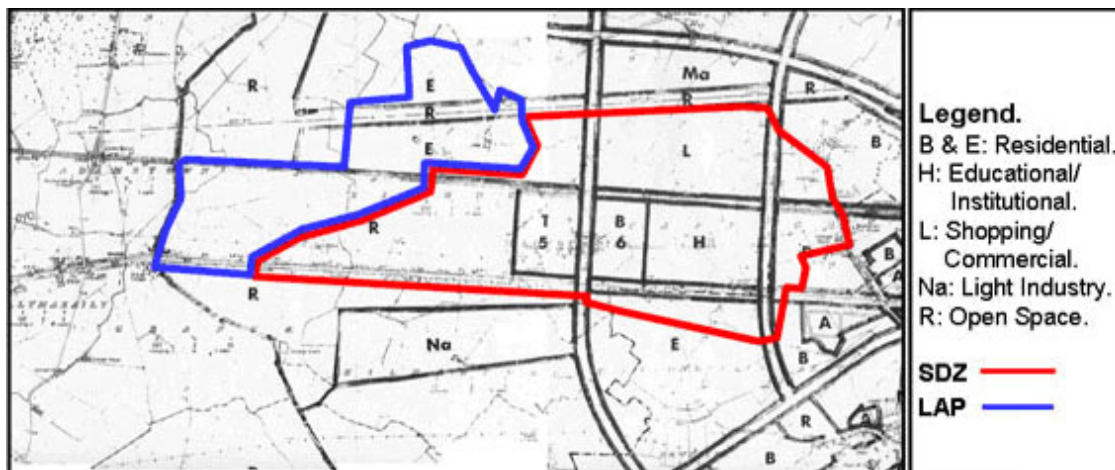


Figure 3.2. Dublin County Development Plan 1972 with boundaries of SDZ & LAP highlighted.

These zonings were maintained until the 1998 South Dublin County Council Development Plan (see figure 3.3). In the 1998 Development Plan, the Town Centre area was rezoned as a District Centre, while the industrially zoned land to the west was rezoned to residential. The lands between the railway line and the Grand Canal were rezoned from open space to residential uses.

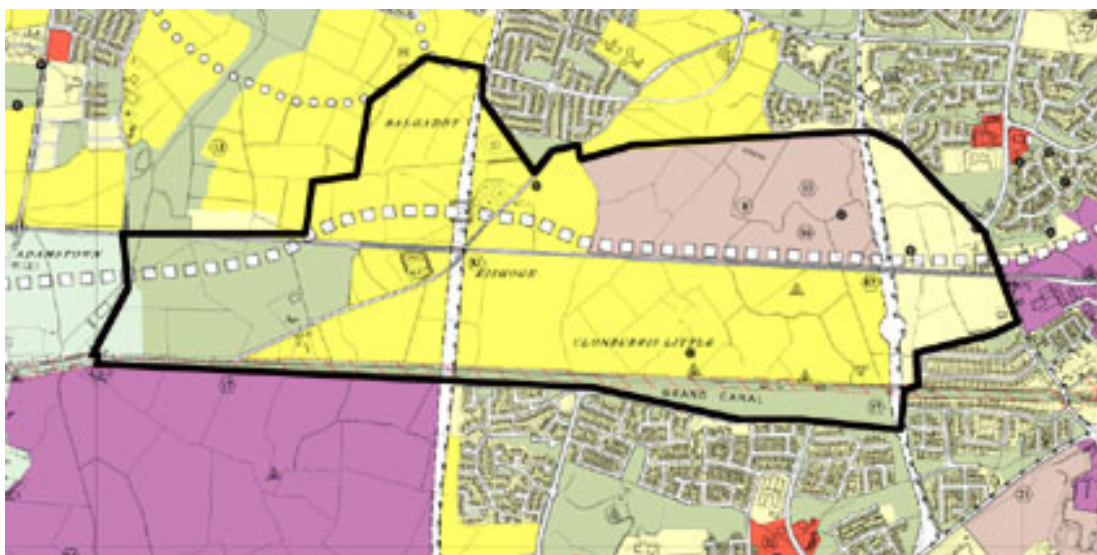


Figure 3.3. South Dublin County Development Plan 1998 (Clonburris Plan Area overlaid in black)

The 2004 Development Plan included an objective that residential development on the overall lands must be accompanied by a LAP. The lands are currently undeveloped.

Further to this it was determined by South Dublin County Council that a Strategic Development Zone was the most appropriate vehicle for delivering the proper and sustainable development of this high profile parcel of land (please refer to section 3.4 overleaf). The opportunities provided by the proposed public transport links on the site are of a national strategic nature, justifying a high density of development. The provision of such higher densities also requires the provision of suitable facilities in tandem with residential development. A SDZ is considered an appropriate way to manage the delivery of such a large scale project. A Strategic Development Zone was designated for part of the lands by the Minister for the Environment on the 31<sup>st</sup> July 2006. Section 179 of the Planning and Development Regulations 2004 (as amended) requires that an environmental report shall accompany a Draft SDZ Planning Scheme. A Strategic Development Zone is not bound by the constraints of the South Dublin County Council Development Plan 2004 but should have regard to the document.

The SDZ planning scheme must provide detailed proposals relating to the overall design, height, transportation, appearance, services provision, amenity provision and effect of the proposal upon the environment of the area, among other issues.

The LAP does not usually require as much detail as is contained within an SDZ Planning Scheme. However, due to the large strategic nature of the site it is proposed that the area will be developed in tandem with the SDZ and so will provide a similar framework and level of detail to guide any development.

The SEA for Clonburriss sets out 3 alternate scenarios for the development of the lands. Each scenario assumes different parameters such as the density of development, amount of open space, level of retail provision and community facilities, services and increasing levels of public transport provision. The significant environmental effects of each scenario are then detailed.



### 3.3 Contents and Main Objectives of the SDZ/LAP

As was mentioned in the previous section, the residential and District Centre lands within the Development Plan 2004 were to be developed subject to the creation of a LAP (please refer to fig 3.4). It was further decided to develop a section of the site as an SDZ (see fig. 3.5) with the remainder of the land to be included within a LAP (see fig. 3.6).

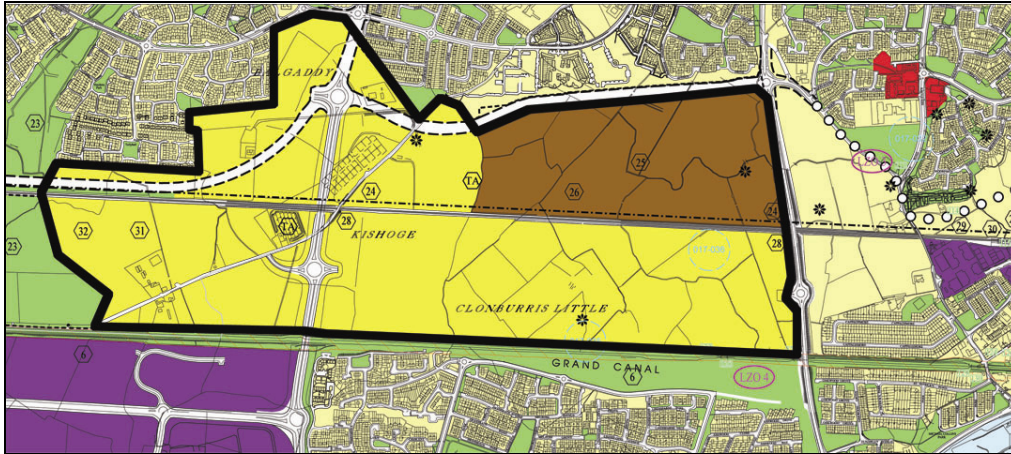


Figure 3.4 2004 County Development Plan. Area subject to LAP under Development Plan overlaid in black.

#### 3.3.1. Clonburris Strategic Development Zone.

The Clonburris SDZ provides a detailed, structured framework for the development of c170 hectares of generally Greenfield lands which are generally located between the Ninth Lock Road, The Fonthill Link Road, The Outer Ring Road and the Grand Canal (see fig. 3.5).

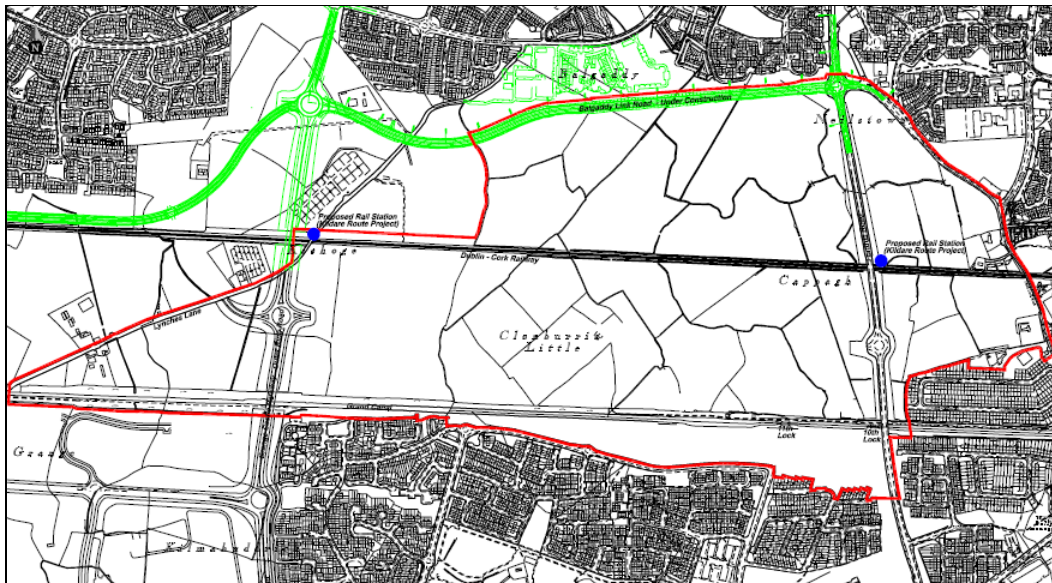
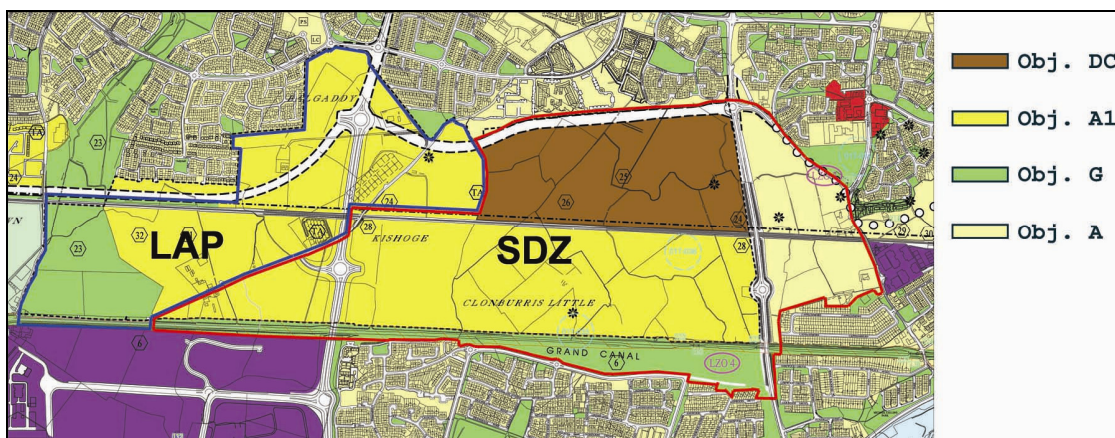


Figure 3.5. Outline of Strategic Development Zone lands in red.

The lands are currently zoned for District Centre (Objective DC); new residential communities (Objective A1); to protect/improve existing residential amenities (Objective A) and open space & recreational amenity (Objective E)(for zoning map from Development Plan 2004-2010, please see figure 3.6).



**Figure 3.6. Extract from 2004 Development Plan maps indicating existing zonings. Indicative locations of SDZ (red) and LAP (blue) designations are overlaid for SEA purposes.**

Section 168 of the Planning and Development Act 2000 (Heretofore referred to as ‘The Act’), provides that a Planning Scheme may be prepared in respect of any area which the Department of the Environment, Heritage and Local Government has designated as a SDZ under section 166 of the Act. The development of lands which are designated as SDZs are considered to be of strategic importance to the economic or social importance to the State and the SDZ designation is designed to facilitate such development. The SDZ lands at Clonburris were designated on 31<sup>st</sup> July 2006.

The SDZ requires the preparation of a detailed Planning Scheme having regard to best practice for the planning and design of new urban communities. The Planning Scheme will generally include detailed information relating to the physical form of growth on the lands in addition to the levels of infrastructure, the quantum of retail, community facilities and residential development, and strict details on phasing of the overall development.

A Planning Scheme for the lands must be submitted to the Minister for the Environment by the 31<sup>st</sup> of July 2008 and approved by An Bord Pleanála. When approved, the Clonburris SDZ Planning Scheme will form part of any County Development Plan in force in the area until the Scheme is revoked, and any contrary provisions of the Development Plan are superseded by the Planning Scheme. Development within the Planning Scheme area will require planning permission from South Dublin County Council.

Where development proposals are consistent with the provisions of the Planning Scheme, they will be granted permission. Where not consistent with the Scheme, no permission will be granted. No party may appeal to An Bord Pleanála against a decision of South

Dublin County Council on any application for permission in respect of a development within the area subject to the Clonburris SDZ Planning Scheme.

Paragraph 4 of the SDZ order signed on 31st July 2006 detailed that the Strategic Development Zone (attached in appendix A), should include the construction of residential development and the provision of schools and other educational facilities, commercial activities, including employment office, hotel, leisure and retail facilities, rail infrastructure, emergency services and the provision of community facilities as referred to in Part III of the First Schedule to the Act, including health and childcare services. In addition it is proposed that the Planning Scheme will include the provision of a strategic national or regional land use to take advantage of the high frequency public transport links afforded by the lands.

The proposed Clonburris SDZ will also address some of the key issues identified in the Regional Planning Guidelines for the Greater Dublin Area 2004-2016, including accommodation of economic and population growth within the GDA in a sustainable manner, improvement of the quality of life of communities by reducing the average journey time to work, providing supporting infrastructure such as community and education facilities, infrastructure for promoting employment, continued delivery of improved public transport services, promotion of the delivery of affordable housing - especially in the metropolitan area, integration of development and transport in strategic planning, and ensuring that new residential developments are developed as balanced sustainable neighbourhoods/communities including local jobs, shopping, community and recreational facilities.

The Planning Scheme should include the following:-

A written statement and a plan indicating the manner in which it is intended to develop the site. The statement and plan should detail the following issues:-

- The types and extent of development to be established on site.
- Proposals in relation to the overall design of the development. These proposals should include detail on the maximum heights, external finishes of structures and the general appearance and design of buildings.
- Transportation proposals, including public transportation, the road layout, parking provision and traffic management.
- Details of services provision on the site, including waste and sewerage facilities, water, electricity and telecommunications, and oil and gas pipelines.
- Proposals to minimise and adverse effects of the development on the receiving environment.
- Proposals relating to the provision of amenities, facilities and services fro the community, including schools, crèches and other education and childcare services.
- An Environmental Report.



### 3.3.2 Local Area Plan.

The proposed Clonburris LAP provides a framework for the development of the c.60 hectares of greenfield land which includes the southern section of Griffeen Park, residentially zoned lands between Griffeen Park and the Outer Ring Road (ORR), and a section of residentially zoned land to the north east of the ORR and the railway line. The proposed Clonburris LAP is a Local Area Plan as defined by the Planning and Development Acts 2000-2002, and is valid for the period as determined by the County Council. Sections 18 & 19 of the Planning & Development Act note the timeframe and contents of LAP documents in addition to mentioning the areas for which a LAP is required.

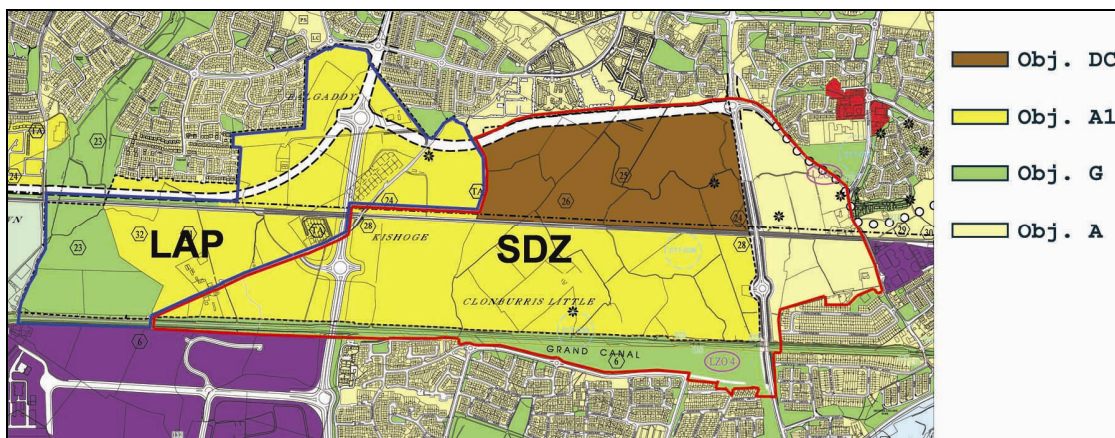


Figure 3.7. Extract from 2004 Development Plan maps indicating existing zonings. Indicative boundaries of SDZ (red) and LAP (blue) designations are overlaid for SEA purposes.

An LAP document should be prepared for an area which a Local Authority considers will require economic, physical and social renewal and which would be subject to large scale development within the lifetime of the plan.

In addition, an LAP should contain a level of detail, determined by the Planning Authority, as may be required to implement the proper planning and development of the area, including detail on community facilities and amenities as well as standards for the design of developments and structures.

The preparation of Local Area Plans where the population of the area of the LAP is to be 10,000 persons or more, or/and where the Planning Authority determines that the implementation of the LAP would be likely to have significant effects on the environment are required to undergo a Strategic Environmental Assessment under Article 14 (B) of S.I. 436 of 2004.

Section 1.2 above describes how this plan incorporates strategic objectives from higher level plans and the relationship of this plan with other relevant plans and programmes. An outline summary of the main objectives of the LAP is outlined below.

The overall development strategy for the proposed Clonburris LAP is to create a sustainable residential, community, and employment based urban district in conjunction

with the Strategic Development Zone Planning Scheme. The Local Area Plan will propose areas of mixed use development on lands in proximity to the Kishoge suburban railway station, along with residential communities with an associated open space hierarchy. The potential for high quality open space along the Grand Canal and linkages to the employment area of Grange Castle Business Campus form a significant section of the proposed Local Area Plan.

Similarly to the proposed Strategic Development Zone, the proposed Local Area Plan will endeavour to retain areas of significant environmental quality and interest.

### **3.4 Development Envisaged - Character and Intensity.**

The above section outlines the main objectives of the proposed SDZ/LAP, this section attempts to provide a qualitative description of the character and intensity of the area upon implementation of the proposed SDZ/LAP. The proposed SDZ/LAP makes provision for a new medium-high density sustainable urban development on the Clonburris lands.

The proposed LAP lands are to be developed in tandem with the proposed SDZ. The overall masterplan and detailed design sections for the Clonburris lands will inform and guide the development of the proposed LAP lands. The lands will be developed to create sustainable, walkable residential neighbourhoods with a variety of community facilities including public open space, schools, local retail in addition to providing office and work space. The core of the proposed LAP area will be centred towards Kishoge Railway Station around which high density development is to be located.



## **4. Compliance with Policies & the Consideration of Alternatives.**

### **4.1. Introduction and Background.**

The SEA directive requires an analysis of the plans ‘relationship with other relevant plans and programmes’ (Annex 1a), and of the ‘environmental protection objectives...which are relevant to the plan or programme and the way those objectives and any environmental considerations have been taken into account during its preparation’ (Annexe 1e). A list of the relevant policies, plans and Environmental Protection objectives was compiled and their requirements analysed in this section. As a result of the assessment of the various policies and objectives, and taking into account issues raised during public pre-plan consultation on the SDZ/LAP scheme, a number of Environmental Protection objectives are proposed to guide the Masterplan. These Environmental Protection objectives are dealt with in section 4.4.

In addition, Article 5 of the SEA Directive requires that the likely effects on the environment due to the implementation of the SDZ/LAP be reported on. Article 5 requires the report to consider “reasonable alternatives taking into account the objectives and the geographical scope of the plan or programme”. The purpose is to identify, predict and evaluate the likely environmental impacts of implementing the Plan and the recommended measures to mitigate these impacts. As part of the SDZ/LAP assessment process, a number of alternatives were considered.

Section 4.6 sets out the 3 alternate scenarios for the development of the lands. Each scenario assumes different parameters such as the density of development, amount of open space, level of retail provision and community facilities, services and increasing levels of public transport provision. The significant environmental effects of each scenario are then detailed further in the later sections of the SEA.

### **4.2. National/Regional/Local Policy.**

A review of Legislation and Policies was undertaken in order to ensure compliance of the plan with environmental policies and objectives. The environmental policies and objectives contained within the documents below were used to inform the structure of the SDZ/LAP plan.

#### ***4.2.1 EU Legislation & Policy.***

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Habitats Directive (Council Directive 92/ 43/EEC).

Birds Directive (Council Directive 79/409/EEC).

Water Framework Directive (Council Directive 2000/60/EC).

The Air Quality Framework Directive; (Council Directive 96/62/EC).

European Union: 6<sup>th</sup> Environmental Action Programme (2001-2010).

#### ***4.2.2 National Legislation & Policy***

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##### *1. Wildlife Act 1976.*

The Wildlife Act, 1976, is the principal national legislation providing for the protection of wildlife and the control of some activities that may adversely affect wildlife. It replaced the Game Preservation Act, 1930, and the Wild Birds (Protection) Act, 1930.

The aims of the Wildlife Act, 1976, are to provide for the protection and conservation of wild fauna and flora, to conserve a representative sample of important ecosystems, to provide for the development and protection of game resources and to regulate their exploitation, and to provide the services necessary to accomplish such aims.

##### *2. Wildlife (Amendment) Act 2000.*

The main relevant objectives of the Wildlife (Amendment) Act, 2000 are to:

- Provide a mechanism to give statutory protection to NHAs;
- Improve some existing measures, and introduce new ones, to enhance the conservation of wildlife species and their habitats;
- Broaden the scope of the Wildlife Acts to include most species, including the majority of fish and aquatic invertebrate species which were excluded from the 1976 Act;
- Ensure or strengthen compliance with international agreements;
- Strengthen the provisions relating to the cutting of hedgerows during the critical bird-nesting period and include a requirement that hedgerows may only be cut during that period by public bodies, including local authorities, for reasons of public health or safety.

##### *3. Air Quality Standards Regulations 2002.*

The regulations deal with the translation into Irish Law of the Air Quality Framework Directive (96/62/EC) setting out the principles of ambient air quality monitoring, assessment and management and the second daughter directive (2000/69/EC) and deals with carbon monoxide and benzene.

##### *4. Ozone Regulations 2004.*

The Air Quality Framework Directive (96/62/EC) sets out the principles of ambient air quality monitoring, assessment and management and was followed by four daughter directives which detailed the limit values for specific pollutants. This is translation of first daughter directive (1999/30/EC) dealing with ozone into Irish Law.

##### *5. National Biodiversity Plan (2002).*

In response to the requirements set out in Article 6 of the Convention, a Bio-diversity Plan was prepared by the Department of Arts, Heritage, Gaeltacht and the Islands. The Plan seeks to ensure the full and effective integration of bio-diversity concerns into the development and implementation of other policies, legislation and programmes which is of critical importance if the conservation and sustainable use of bio-diversity is to be achieved. The Plan considers the three levels at which biodiversity may be considered,

i.e. ecosystem diversity, species diversity and genetic diversity. The overall goal of the Plan is to “secure the conservation, including where possible the enhancement, and sustainable use of biological diversity in Ireland and to contribute to conservation and sustainable use of bio-diversity globally”. The Master Plan is considered to be consistent with this Plan. The policies of the NCC Strategy are inherent in the Strategic Environmental Appraisal of the Master Plan.

#### *6. National Spatial Strategy (2002-2020)*

The Strategy’s focus is on people and places and where they live and work. The Strategy seeks to unleash the potential for progress, growth and development in a more balanced way across Ireland, supported by more effective planning. The Strategy is a 20-year framework for the 7 regions. The Strategy seeks to provide the following:

- To create an efficient and high quality public transport system which offer connections within the Dublin area to improve access to employment, education, services and amenities and to improve connections to and from Dublin Airport for national and international travellers.
- Investing in the quality of life attractions of the city and its surrounding centres, particularly in terms of education at primary and secondary level, healthcare, childcare, cultural and entertainment facilities.
- The Strategy promotes higher densities and the re-development of infill and underutilised sites.

#### *7. National Development Plan 2006-2012.*

The National Development Plan *Transforming Ireland — A Better Quality of Life for All* sets out the roadmap to Ireland’s future over the next seven years. The continuing increase in population, projected to reach over five million people by 2021 dictates the need for defined proposals for a better long-term future.

The landmark challenges are:

- removing the remaining infrastructure bottlenecks that constrain our economic development and inhibit balanced regional development and environmental sustainability;
- further equipping our children and youth with the skills and education to grasp the opportunities presented to us;
- creating and sustaining high value employment opportunities; and
- redistributing the product of wealth to foster an inclusive society, including adequately catering for those who have already contributed to Ireland’s success over previous decades.

The National Development Plan integrates strategic development frameworks for regional development, for rural communities, for all-island co-operation, and for protection of the environment with common economic and social goals.

#### *8. Housing Policy Framework-Building Sustainable Communities.*

Published in 2005, the Housing Policy Framework document set out a 21<sup>st</sup> century vision aimed at building sustainable communities. The document acknowledges the needs of sustainable communities as places to work and live, while meeting the diverse needs of existing and future residents. Sustainable communities require sensitivity to the

environment and provision of a high quality of life. The document sets out policy and actions on providing such communities.

*9. Delivering Homes, Sustaining Communities.*

A document which takes the vision set out in the Housing Policy Framework and provides greater detail on the actions required if the goals are to be achieved. It attempts to provide a vision for the future of housing in Ireland.

*10. Telecommunications Antennae and Support Structure-Guidelines for Planning Authorities' (1996).*

These Guidelines deal with those telecommunications installations which form part of the requirements for licensed, public mobile telephony and which are considered to be development in accordance with the Planning and Developments Acts.

*11. Residential Density Guidelines (2000).*

The Guidelines promote increased residential densities in order to ensure the most efficient use of zoned and served housing land, provide a more varied range of dwelling types and sizes, optimise the use of existing services, facilities and infrastructure, encourage more sustainable commuting patterns and facilitate improved public transport. It is considered that the residential density patterns in the Master Plan reflect those in the Guidelines.

*12. National Heritage Plan (2002).*

This Plan aims to set out a clear and coherent strategy and framework for the protection and enhancement of our heritage over the next 5 years. Every action in this Plan is founded on the principle of sustainable development which states that the needs of the present generation must be met without compromising the ability of future generations to meet their own needs. The Plan seeks to ensure the protection of Ireland's heritage and to promote its enjoyment by all. The policies of the NHP are inherent in the Strategic Environmental Appraisal of the Master Plan.

*13. Architectural Heritage Protection, Guidelines for Planning Authorities (2004).*

The Planning and Development Act, 2000, required additional development objectives relating to the protection of structures which are deemed to be of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest. In this context, these Guidelines aim to assist local authorities in the adoption of suitable policies for protecting architectural heritage in their development plans and to ensure that they have practical effect through development control measures. It also offers guidance to Planning Authorities on determining planning applications in relation to protected structures.

*14. National Climate Change Strategy (2007-2012).*

This National Climate Change Strategy 2007-2012 follows on from the first national strategy, published in 2000 and reviewed in 2002, and takes account of the public consultation process which followed the further review in *Ireland's Pathway to Kyoto Compliance* (2006). The purpose of this Strategy is twofold:

- to show clearly the measures by which Ireland will meet its 2008-2012 commitment; and
- to show how these measures position us for the post-2012 period, and to identify the areas in which further measures are being researched and developed to enable us meet our eventual 2020 commitment.

*15. Retail Planning Guidelines for Planning Authorities (2005).*

These Guidelines update and replace the Retail Planning Guidelines published in January 2001. The Guidelines provide a retail hierarchy for the State and objectives in managing recent pressures in the retail market. The major change from the 2000 to the 2005 Guidelines is in relation to the retail warehouse cap. The revised Guidelines now outline where the previous cap of 6,000 sq.m. for a retail warehouse may be lifted within the functional areas of the four Dublin local authorities and in the other National Spatial Strategy Gateways. The Gateway towns and cities are Athlone/Tullamore/Mullingar, Cork, Dublin, Dundalk, Galway, Letterkenny, Limerick/Shannon, Sligo and Waterford.

*16. Government White Paper on Sustainable Energy. 2007-2020.*

The White Paper sets out the Government's Energy Policy Framework 2007-2020 to deliver a sustainable energy future for Ireland. It is set firmly in the global and European context which has put energy security and climate change among the most urgent international challenges. In charting the course for Irish energy policy, the Government is taking full account of global and EU developments. The report recognises major opportunities to be realised in harnessing the full potential of our renewable and bioenergy resources. The immediate priority is delivery of the Single Electricity market in 2007 while continuing to enhance the all-island approach to gas, renewable energy, energy efficiency and energy research.

#### ***4.2.3 Regional Policy***

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*1. Regional Planning Guidelines for the Greater Dublin Area 2004-2016.*

The Strategic Planning Guidelines for the Greater Dublin Area were reviewed in 2003. The Regional Planning Guidelines provide for the implementation of the National Spatial Strategy at regional level in the Greater Dublin Area. The Guidelines provide for the consolidation of development in the Metropolitan Area as a means of accommodating the projected growth of population and households.

*2. Greater Dublin Strategic Water Supply Study.*

The medium-term strategy for drinking water in South Dublin County Council is based on the Greater Dublin Strategic Water Supply Study (GDWSSS), which was commissioned by the Department of the Environment, Heritage & Local Government (DEHLG) and published by Generale des Eaux /MC O'Sullivan in 1996. This report was revised in part in 2000 to ensure compliance with Strategic Planning guidelines and to take into account higher than anticipated growth in the Dublin Region. The GDWSSS forms the basis for the assessment of needs for the capital investment required to secure the water supply system for the Greater Dublin Region for the period 1996-2016.

### *3. Greater Dublin Strategic Drainage Study.*

The Greater Dublin Strategic Drainage Study, completed in 2005, identified baselines, policies, strategies and projects for the development of a sustainable drainage system for the Greater Dublin Region. The study examined the infrastructural requirements to the year 2031 in three time frames:

1. Drainage requirements for all developments to year 2002 (Study Baseline Year)
2. Short term situation: drainage requirements for all anticipated developments to year 2011;
3. Long term situation: broad drainage requirements to the year 2031.

An SEA to assess the options for the long term situation is currently being undertaken.

### *4. Dublin Waste Management Plan (DWMP).*

The Waste Management Plan for the Dublin Region has been developed jointly by Dublin City Council, South Dublin County Council, Fingal County Council and Dun Laoghaire-Rathdown County Council. The Dublin Region adopted a *Regional Waste Management Strategy* in 1997, which set out to replace a system that over-relied on landfill disposal with a new approach based on integrated waste management over a 20 year period. Dublin's waste strategy goals are summarised by the EU waste hierarchy pyramid, which stresses that a new approach to managing waste is required to lead to more sustainable waste management. The strategy is to place emphasis on prevention, minimisation, reuse, recycling and recovery of energy in order to end the over-reliance on landfill disposal.

### *5. Dublin Transportation Office, A Platform for Change.*

This Strategy recommended an integrated transportation strategy for the Greater Dublin Area for the period up to 2011. The Strategy seeks to provide strategic yet limited improvements to the road network which will be managed in a way which does not encourage peak hour car commuting and provides guidance on complementary land use policies.

## ***4.2.4 Local Policy.***

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### *1. South Dublin County Development Plan 2004-2010.*

The Development Plan sets out South Dublin County Council's policies and objectives for the development of the County from 2004 to 2010. The Plan seeks to develop and improve in a sustainable manner the social, economic, cultural and environmental assets of the County.

### *2. Survey of Architectural Heritage of South Dublin.*

The purpose of the survey is to identify and promote a representative selection of the surviving architectural heritage in the County in order to change perception of the wealth of architectural heritage within the County.

### **4.3. Policies and Objectives of Relevance.**

The sections below detail the relevant policies and objectives contained within the documentation noted in section 4.2. The policies and objectives are have been grouped in accordance with relevance to the various environmental categories to be detailed within the SEA document. These policies and objectives provide guidance in the formation of environmental objectives with which to assess the various development options proposed.

#### **4.3.1 Biodiversity, Flora and Fauna.**

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##### *EU Legislation and Policies.*

Biodiversity is protected under EU legislation, principally under the Habitats Directive (Council Directive 92/ 43/EEC), the Birds Directive (Council Directive 79/409/EEC), and the Water Framework Directive (Council Directive 2000/60/EC). These have all been transposed into Irish law by the Wildlife Act 2000 and the European Communities (Water Policy) Regulations 2003 (S.I. 722 of 2003).

##### *The National Biodiversity Plan (2002).*

- Conserve habitat and species diversity, including all sites of special biodiversity importance.
- The ‘polluter pays principle’ and the ‘precautionary principle’ will be supported.

##### *South Dublin County Development Plan 2004.*

- Policy LHA 6: Protect and Preserve Special Areas of Conservation and Proposed Natural Heritage Areas.
- 9.4.9 Policy LHA 11: Conserve the existing flora and fauna through the protection of wildlife habitats wherever possible.
- 9.4.10 Policy LHA 12: Implement a river and stream management strategy.
- 9.4.11 Policy LHA 13: Protect and enhance the Grand Canal.

#### **4.3.2 Population.**

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##### *National Spatial Strategy (NSS).*

The existing and future growth of the state has dictated policies for the future spatial development of the state to 2020. The NSS provides development guidelines to the regional and county Development Plans.

‘The NSS supports Dublin’s pivotal role in national economic success. It is essential for balanced regional development that the performance of the Greater Dublin Area be built upon and physically consolidated’ (section 3, p38).

##### *Regional Planning Guidelines for the Greater Dublin Area (RPGGDA).*

- Consolidate development within the metropolitan area;
- Increase overall densities of development;
- Thereby facilitate the provision of considerably enhanced public transport system and facilitate and encourage a shift to public transport;

- Consolidate the three western towns of Tallaght, Lucan-Clondalkin and Blanchardstown to their approximate design populations, thereby making best use of infrastructure already provided for these areas.

*South Dublin County Development Plan 2004-2010.*

- SLO24 New railway stations at Kishoge and Fonthill.
- SLO25 Town Centre zoning uses to apply to Balgaddy District Centre.
- SLO26 Balgaddy and Clonburris to be included in an overall Local Area Plan.
- SLO28 Provide sustainable rail-based development at Balgaddy-Clonburris.
- SLO31 Develop lands at Lynch's Lane for a mix of housing types and tenures.

## **Human Health Air & Noise.**

### **4.3.3. Air.**

The EU directive on ambient air quality and management (The Air Quality Framework Directive; 96/62/EC) has been transposed into Irish legislation by the Air Quality Standards Regulations 2002 and the Ozone Regulations 2004. These detail strategic objectives in relation to air quality and management.

- Set pollution standards which will avoid, prevent and reduce harmful effects on human health and the environment,
- Maintain ambient air quality where it is of a good standard and improving it in other cases.

### **4.3.4. Noise.**

Under the Environmental Protection Agency Act of 1992, the definition of 'environmental pollution' includes 'noise which is a nuisance, or would endanger human health or damage property or harm the environment'. The Protection of the Environment (POE) Act 2003 includes noise in the definition of environmental pollution, which encompasses the 'introduction to an environmental medium, as a result of human activity, of noise which may be harmful to human health or the quality of the environment, result in damage to material property, or impair or interfere with amenities and other legitimate uses of the environment'(Source: Guidance note for noise in relation to scheduled activities).

- In seeking to reduce noise pollution 'best available technology' (BAT) is to be utilised.

## **Soil & Water.**

### **4.3.5. Soil**

Objectives with regard to soil tend to concentrate on the preservation of habitats and biodiversity as these are visible tangible indicators of the health of the soil.

*The National Biodiversity Plan (chapter 1. p6).*

- Conserve habitat and species diversity, including all sites of special biodiversity importance.
- The conservation of biological diversity is essential for sustainable development, and for maintaining the quality of human life.



*Regional Planning Guidelines for the Greater Dublin Area (RPGGDA).*(Goal 2):-

- *'Consolidate a compact city and urban centres and avoid urban sprawl between them in order to conserve the green space between them.'*

*South Dublin County Development Plan 2004-2010.*

- Minimise the consumption of natural non-renewable resources;
- Ensure the protection of natural habitats, ecological resources and quality landscapes and the promotion of bio-diversity;

#### **4.3.6. Surface Water.**

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*Regional Planning Guidelines for the Greater Dublin Area.*

Objective 4.2.

- *'To coordinate settlement pattern with strategic plans for (a) water resource management and (b) waste management and disposal.*
- *Delivery should be coordinated regionally and across administrative boundaries to ensure a balanced and equitable use of resources.*
- *Waste strategies should be coordinated across the region to allow for flexibility in the management of waste services.'*

*South Dublin County Development Plan 2004-2010.*

Section 7.

- *'Continue the sustainable development and improvement of the water supply and drainage systems to meet the anticipated water and drainage requirements.*
- *'Conserve and protect surface water catchments and manage catchment areas where appropriate to protect the surface water drainage infrastructure of the County.'*
- *Implement the recommendations of the Greater Dublin Strategic Water Supply Study and the Greater Dublin Strategic Drainage Study.*
- *Protect and conserve streams and watercourses for their landscape and amenity value through the implementation of a river and stream management strategy.'*

#### **Material Assets.**

##### **4.3.7. Transportation and Traffic.**

---

*National Spatial Strategy 2002 – 2020 (NSS).*

The Clonburris site is located within the Dublin and Mid-East Regions (the Greater Dublin Area) and is situated on one of the key National Transport Corridors. The GDA and the National Transport Corridors are illustrated in figure 4.1.

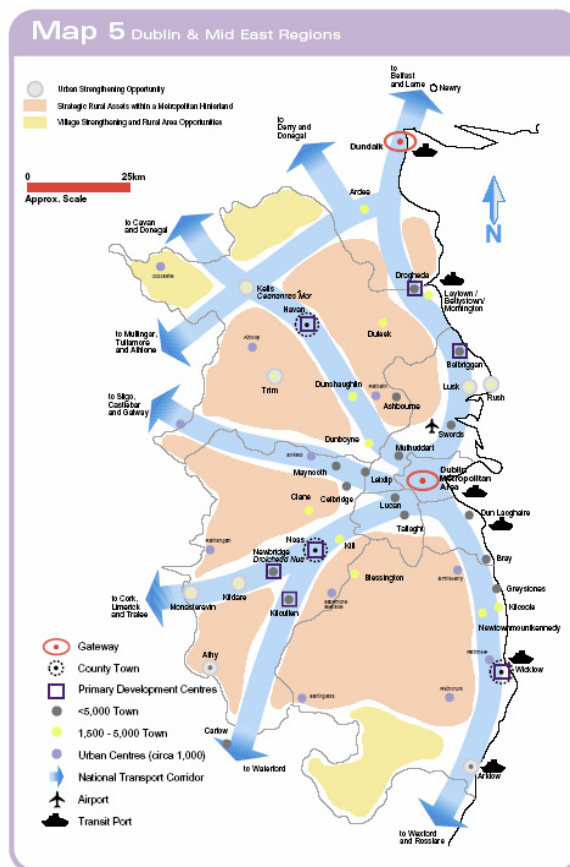


Figure 4.1. Source: National Spatial Strategy

The NSS also acknowledges the advantages of the consolidation of the GDA in terms of public transport.

*Regional Planning Guidelines for the Greater Dublin Area 2004 – 2016.*

The key principle of the RPPGDA is to provide sustainable infrastructure corridors through the introduction of demand management measures, maximising public transport services and an integrated approach to land use and transport planning.

In addition,

- *“In locations where undeveloped or brownfield sites are adjacent to multimodal transport facilities, well designed and appropriately dense development proposals should be encouraged (Section 7.5).*
- *“In the Metropolitan Area, public transportation and other sustainable modes should be given precedence over the requirements of the private car in all relevant policy and decision-making” (Section 7.1).*

*The Dublin Transport Office (DTO) Strategy 2000-2016 Platform for Change.*

- Improve accessibility and reduce congestion;
- Reduce growth in the demand for transport, especially private transport;
- Reduce travel times and congestion;
- Promote cycling and walking as safe, sustainable and healthy means of transport;



#### **4.3.8. Water supply.**

---

*Regional Planning Guidelines for the Greater Dublin Area.*

Objective 4.2 of Goal 4:-

- *To coordinate settlement pattern with strategic plans for (a) water resource management and (b) waste management and disposal.*

*South Dublin County Development Plan 2004-2010.*

- *'7.12. The capacity of the County to accommodate future growth is dependent in part on constraints and limits in the provision of water supply and drainage in the Dublin Metropolitan area.*
- *7.14.1.ii. Make provision for the construction of water supply facilities to permit development to proceed as required in designated development areas.'*

#### **4.3.9. Waste Water.**

---

*Regional Planning Guidelines for the Greater Dublin Area.*

Objective 4.2 of Goal 4

*'To coordinate settlement pattern with strategic plans for (a) water resource management and (b) waste management and disposal.*

*Waste strategies should be coordinated across the region to allow for flexibility in the management of waste services.'*

*South Dublin County Development Plan 2004-2010.*

7.14.1. Policy WD1: *'It is the policy of the Council to co-operate with adjoining authorities to continue the sustainable development and improvement of the water supply and drainage systems throughout the County to meet the anticipated drainage requirements of the area.'*

#### **Energy Networks.**

##### **4.3.10. Gas Supply.**

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*National Spatial Strategy (NSS).*

A second pipeline from Great Britain to Ireland is under construction, which will serve to secure gas supplies to Ireland for the foreseeable future.

*Regional Planning Guidelines for the Greater Dublin Area.*

- *'Section 5.4 (p97) To provide co-ordinated spatial organisation for services infrastructure (including water, wastewater, electricity, gas and telecommunications) in designated corridors that supports and facilitates the orderly integrated development of the region in a sustainable manner.'*

*South Dublin County Development Plan 2004-2010.*

- *'Strategy 7.23. Support further economic extensions of the gas grid in the county.'*

#### **4.3.11. Electricity Supply.**

---

*National Climate Change Strategy 2007-2012.*

- Future electricity generation to meet demand in Ireland over the coming years must be met through renewable resources.
- Future generation potential includes increased wind power provision.
- It is the policy of the Government to actively encourage combined heat and power provision.
- Promote Electricity Demand Side Management (DSM).
- Develop more energy efficient buildings.
- The development units in accordance with the updated Guidelines for Sustainable Residential Development.

*Regional Planning Guidelines for the Greater Dublin Area.*

- *'Section 5.4 (p97) To provide co-ordinated spatial organisation for services infrastructure (including water, wastewater, electricity, gas and telecommunications) in designated corridors.'*

*South Dublin County Development Plan 2004-2010.*

7.24.1 Policy EC 1: *Seek the placing underground of all electricity, telephone and TV cables wherever possible, in the interests of visual amenity.*

7.24.6 Policy EC 6: 7

- *It is the Policy of the Council to support the infrastructural development of electricity networks in the County.*
- *It is an objective of the Council that where proposed High Voltage lines traverse existing or proposed residential areas they shall be located underground in the interest of residential amenity.*

With regard to the provision of energy from renewable sources, the Development Plan states the following:-

- 7.24.4 Policy EC 4: *Support national and international initiatives for limiting emissions of greenhouse gases and to seek to provide positively for the development of appropriate renewable energy sources.*
- 7.24.5 Policy EC 5: *Seek to improve the energy efficiency of its existing building stock, promote energy efficiency and conservation in the design and development of all new buildings in the County, and in residential schemes in particular.*

#### **4.3.12. Renewable Energy.**

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*Government White Paper on Sustainable Energy. 2007-2020.*

- Strategic Goal 1: Addressing Climate Change by Reducing Energy Related Greenhouse Gas Emissions.
- Strategic Goal 2: Accelerating the Growth of Renewable Energy Sources.
- Strategic Goal 3: Promoting the Sustainable Use of Energy in Transport.
- Strategic Goal 4: Delivering an Integrated Approach to the Sustainable Use of Bioenergy Resources.
- Strategic Goal 5: Maximising Energy Efficiency and Conservation.

- Strategic Goal 6: Delivering Energy Research Technology Development and Innovation Programmes in Support of Sustainable Energy Goals.

#### 4.3.13 Solid Waste Collection and Disposal.

There has been a direct translation of the proposals put forward at EU level into national, regional and local policies. The figure below (4.3) indicates that waste prevention is the most preferred option, with waste disposal being the least preferred option.

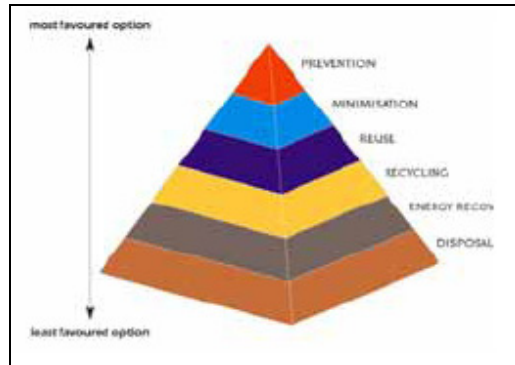


Fig. 4.3. Extract from Dublin Waste Management Strategy. P2.

*European Union: 6<sup>th</sup> Environmental Action Programme (2001-2010) Executive Summary.*

- To decouple the generation of waste from economic growth by establishing more sustainable consumption patterns.
- Maximise recycling and bring “final disposal to an absolute minimum”
- Waste should be treated as close as possible to where it is generated (“proximity principle”)

*National Spatial Strategy.*

Section 1.3 of the NSS promotes cost-effective provision of public services like waste management facilities and the reduction of waste through efficient development patterns.

*Regional Planning Guidelines for the Greater Dublin Area.*

Objective 4.2 of Goal 4 *To coordinate settlement pattern with strategic plans for waste management and disposal.*

*South Dublin County Development Plan 2004-2010.*

South Dublin will conform to the European Union, National and Regional policy in all matters relating to the production, handling, treatment and disposal of waste within the County. This policy is implemented through compliance with the Dublin Waste Management Plan.

#### **4.3.14. Information & Communications Technology.**

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*National Policy.*

Utilise the information within the 'Telecommunications Antennae and Support Structure-Guidelines for Planning Authorities' (1996) as a minimum standard.

*Regional Planning Guidelines for the Greater Dublin Area.*

'Section 5.4. To provide co-ordinated spatial organisation for services infrastructure.'

*South Dublin County Development Plan 2004-2010.*

- '7.24.1 Policy EC1. Seek the placing underground of all electricity, telephone and TV cables wherever possible, in the interests of visual amenity.
- Policy EC2. Seek to have appropriate modern information technology, including a carrier neutral, multi-duct infrastructure servicing every unit, incorporated into the overall design and layout of all new developments in South Dublin, where feasible.'

#### **4.3.15. Cultural Heritage.**

---

*National Heritage Plan.*

- National heritage is a unique yet finite resource that can be eradicated or irreparably damaged through uninformed or inappropriate actions.
- National heritage is to be managed and conserved through best practice for the enjoyment and benefit of existing and future generations.
- Achieve an appropriate balance between present-day needs and heritage management.

*South Dublin County Development Plan 2004-2010.*

- Protect and conserve buildings, structures and sites of special architectural, historic, archaeological, artistic, cultural scientific, social or technical interest.
- Secure the preservation in situ or by record of all sites and features of historical and archaeological interest.

#### **4.3.16. Landscape and Townscape.**

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*National Spatial Strategy.*

- Ensure that construction design is of a high quality and appropriate to the scale and context of its surroundings.

*Landscape and Landscape Assessment (Draft 2000).*

- Consider landscape in terms of the types of development that can be accommodated.

*Regional Planning Guidelines for the Greater Dublin Area.*

Section 9.5.

- Adopt policies which will protect and enhance the architectural character and landscape settings in their area.

- The structures of today will become the heritage of the future. Contemporary buildings of a high design standard should be actively encouraged through the planning system.

*South Dublin County Development Plan 2004-2010.*

- Policy 9.4.11. *Enhance the visual, recreational, environmental and amenity value of the Grand Canal, its towpaths and adjacent wetlands.*

#### **4.3.17. Sustainability**

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National Policy.

*National Climate Change Strategy.*

- *Promote sustainable development, including thorough integration of climate change considerations into all policy areas.*

*National Spatial Strategy (NSS).*

Sustainable development should encompass the following:-

- *Maximise access to public transport, cycling and walking facilities.*
- *Developing sustainable urban settlement patterns to reduce distance from employment, services and leisure facilities and to make better use of existing and future investments in public services, including public transport.*
- *Promote cost-effective provision of public services.*
- *Promote socially integrated communities in both urban and rural areas.*
- *Minimise the consumption of non-renewable resources like soils, groundwater and agricultural land.*
- *Avoid adverse impacts on environmental features such as landscapes, habitats and protected species, river catchments, the maritime environment and the cultural heritage.*

*Regional Planning Guidelines for the Greater Dublin Area.*

Goal 5: The creation of a strategic transport network that links key settlements together, maximising accessibility and connectivity, integrating land use with the transport system thus ensuring that travel demand is sufficient to ensure viability and to provide a coordinated spatial organisation for services infrastructure.

*South Dublin County Development Plan 2004-2010.*

*Section 11.0 Aim:-*

*To deliver sustainable communities together with a high quality built environment through good place-making, by reducing as far as possible the need to travel, particularly by private car, by facilitating mixed-use development and promoting the efficient use of land and public investment in infrastructure in order to facilitate viable local services, employment and public transport.*



#### **4.4 Environmental Protection Objectives.**

A number of Environmental Protection objectives have been devised to assist in the preparation of the proposed plan. These Environmental Protection objectives were formed through analysing the SDZ/LAP plans' 'relationship with other relevant plans and programmes', the environmental protection objectives contained within those plans, and the issues raised during public consultation as is recommended in the 'Implementation of the SEA Directive'. Further more detailed objectives, known as Specific Development Objectives, are proposed in Section 6 after taking into account the Environmental Protection Objectives and the environmental baseline of the area.

The Environmental Protection objectives have been cross checked against the Specific Development objectives to ensure broad compliance with the framing principles of the masterplan within Chapter 6. The Specific Development objectives are then used to assess the compliance of the alternatives with the plans and programmes in Chapter 7.

##### **Environmental Protection Objectives.**

Objective 1. **(A: Biodiversity)** To maintain the biodiversity of the site through protection of existing habitats where possible.

Objective 2. **(B: Population)** To provide the basis for a new community to meet housing need in the Dublin region in a sustainable manner.

Objective 3. **(C: Human Health, Air & Noise)** Not to increase the impact of Air, Soil, Noise & Water pollution on the existing environment.

Objective 4. **(D: Transportation & Traffic)** To maximise usage of public transport and minimise adverse impact on the existing road network.

Objective 5. **(E: Water Supply, Waste Water, Gas Supply, Electricity Supply, and Information Technology Networks)** To ensure appropriate provision of network infrastructure is made to ensure development in this area.

Objective 6. **(F: Solid Waste)** To reduce waste production and maximise recycling.

Objective 7. **(G: Cultural Heritage)** To protect and enhance items or areas of Cultural Heritage on the site.

Objective 8. **(H: Landscape and Townscape)** To enhance and protect current landscape features of value on the site and create quality urban environment and public realm on site.

Objective 9. **(I: Sustainability)** To create a sustainable community that utilises best current practice and standards as appropriate.

#### **4.5. Methodology for Generating Alternative Scenarios.**

A total of 4 no. alternative scenarios were developed through consideration of the statutory and operational requirements of the SDZ and LAP. Issues which were taken into consideration include. The objectives of the South Dublin County Council Development Plan 2004 along with the strategic nature of the site in the context of Dublin City. The methodology has been informed by the EU, National, Regional and Local documents detailed in the previous section.

#### **4.6. Alternatives Considered.**

The zoning of the lands for residential, District Centre and open space uses under the 2004 Development Plan would lead to the development of the site with the various objectives and requirements of the Development Plan applied to the site. The Development Plan requires the creation of a Local Area Plan (LAP) for all proposals for development on lands zoned A1 (To provide for new residential communities). A LAP would have detailed certain requirements for any new development, including outline density zones, areas to be set aside for open space, road layout and location of proposed community facilities in accordance with Development Plan guidance.

In July 2006 a major section of the site was designated as a Strategic Development Zone due to the nationally strategic location of the site along the Dublin-Kildare railway line. The lands within the SDZ designation are not legally bound by the zoning or objectives of the County Development Plan but should have regard to them. The SDZ planning scheme must provide detailed proposals relating to the overall design, height, transportation, appearance, services provision, amenity provision and effect of the proposal upon the environment of the area, among other issues.

While the LAP does not require this level of detail, it is proposed that such an area will be developed in tandem with the SDZ and so will provide a similar framework for any development. Therefore both sections of land are being considered as a single development parcel for the purposes of the alternatives provided. In ecological terms the lands are linked by a number of ecological corridors, such as the Grand Canal, the Dublin-Kildare railway line and the numerous hedgerows in the area.

The 4 no. development scenarios were developed in the context of the broad development possibilities available within the site taking into account; the strategic framework for development offered by the SDZ designation; the proposed public transport infrastructure upgrades; the requirement for the SEA Environmental report to test possible development outcomes against their strategic environmental impact and to assess the most appropriate development approach for the site.

The key difference between the four scenarios is the range and intensity of development envisaged from the potential of the lands under the current Development Plan though the varying densities available under the SDZ/LAP designation. The site is currently subject to a number of public transport improvements, which will link Clonburris into the

strategic public transport network for the Country as a whole. The development options envisaged for the site have taken into account the current and future accessibility of the site to high quality public transport. The development options, particularly options 2-4 have responded with a masterplan which offers accessibility to public transport, but which substantially increases the intensity of development and the layering of uses as each additional public transport project comes into service on the site.

The development scenarios allow for variations in density across the site, while always maintaining higher densities at the nodes of the Kishoge Station and Fonthill Station/Town Centre.

### Development Options.

- Option 1. Development in accordance with South Dublin County Council Development Plan 2004 with LAP on section of the lands.
- Option 2. Low Density mixed uses development within SDZ/LAP.
- Option 3. Medium Density mixed uses development within SDZ/LAP.
- Option 4. High Density mixed uses development within SDZ/LAP.

Characteristics	Option 1	Option 2	Option 3.	Option 4.
Potential residential units.	7-10,000	10-11,000	15-16,000	20-21,000
Potential population.	15,000	25,000	35,000	Up to 40,000
Average density (units per hectare).	50	50-80	60-150	90-180
Gross retail floorspace (sqm)	20,000	40-50,000	60-65,000	70-75,000
Employment/Office floorspace (sq.m)	50-60,000	150-170,000	160-180,000	180-200,000
Percentage of public open space.	10-14%	Minimum 10-14%	Minimum 10-14%	Minimum 10-14%
Connectivity to high frequency public transport.	Not tied to public transport provision.	Tied into improved public transport provision.	Tied into major public transport provision.	Tied into major public transport provision.
Regulation of development on site.	Local Area Plan (LAP) required for part of site.	SDZ and LAP required for whole of site.	SDZ and LAP required for whole of site.	SDZ and LAP required for whole of site.
Development layout.	Indicative within LAP.	Detailed Masterplan.	Detailed Masterplan.	Detailed Masterplan.

These options are further assessed in chapter 7 of the report.

## 5.– Characteristics of the Existing Environment.

### 5.1 Introduction.

This chapter of the report describes the existing baseline condition of the environment within the overall Clonburris lands. The information provided from the baseline study and the policies of the EU, National, Regional and Local documents will be assessed against the 4 no. development scenarios in order to reveal the most compatible proposal for development.

A certain amount of research and assessment was carried out for the preparation of the plan and Environmental Report. This included transport and traffic assessments in respect of public transport capacity and the impact of various scales of development on the surrounding road network; and a retail assessment study to examine retail capacity in the surrounding area. Aside from these studies the other important information sources include:-

- The Environmental Impact Statement (EIS)(Hogan Keoghan Ryan 2002) carried out for Phase 1 of Balgaddy Town Centre, on lands which lie in the north-eastern sector of the lands (see area covered on fig. 5.1).
- The EIS carried out for the Outer Ring Road (Arup Consulting Engineers) (see fig. 5.1).
- The EIS carried out for the Fonthill Link Road (Arup Consulting Engineers) (see fig. 5.1).
- The EIS carried out for the Railway (Kildare Route Project) order 2005 (Iarnrod Eireann) (see fig. 5.1).
- Loc Canail Group. Local Ecological Studies on the lands to the south of the railway line within the SDZ.
- Consultation in the form of on-site meetings and scoping reports from the National Parks and Wildlife Services.

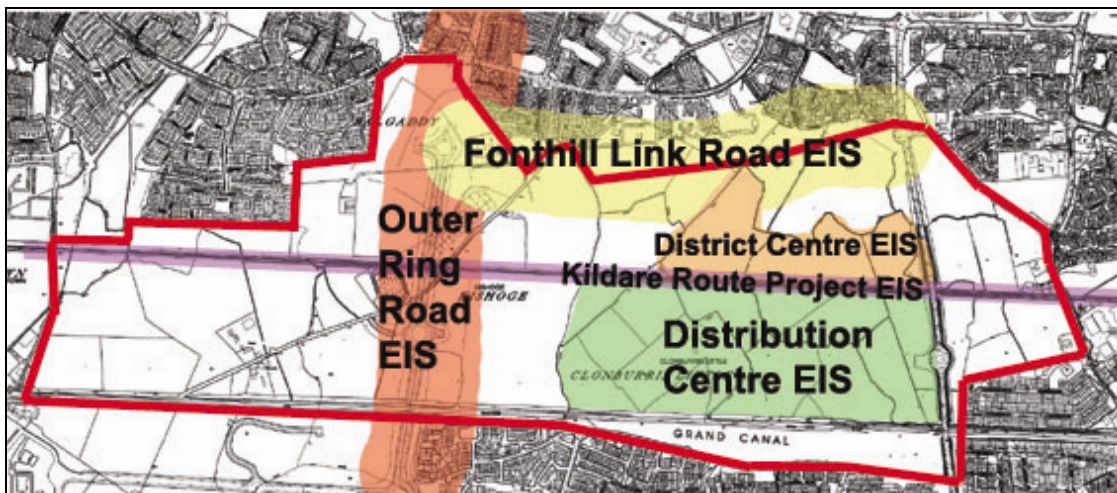


Figure 5.1. Indicative map of locations of EIS documents relating to the site.

## 5.2. Baseline Description of the Current Physical Environment and Identification of Environmental Problems.

### Study Area.

The lands consist of 265 ha which have been modified by man over the course of the last 2-3 centuries. The lands primarily consist of mostly flat grassland, currently used for grazing which is divided into an irregular field pattern by hedgerows and drainage ditches. The hedgerows and associated drainage ditches predate many of the infrastructural elements currently occupying the lands and in some cases form townland and barony boundaries. The lands to the north, south and east of the SDZ/LAP are occupied by urban housing.

The outlined lands contain several different land uses and associated habitats. These are detailed below:-

### Land Uses.

*The Grand Canal (Constructed 1755-1803).*

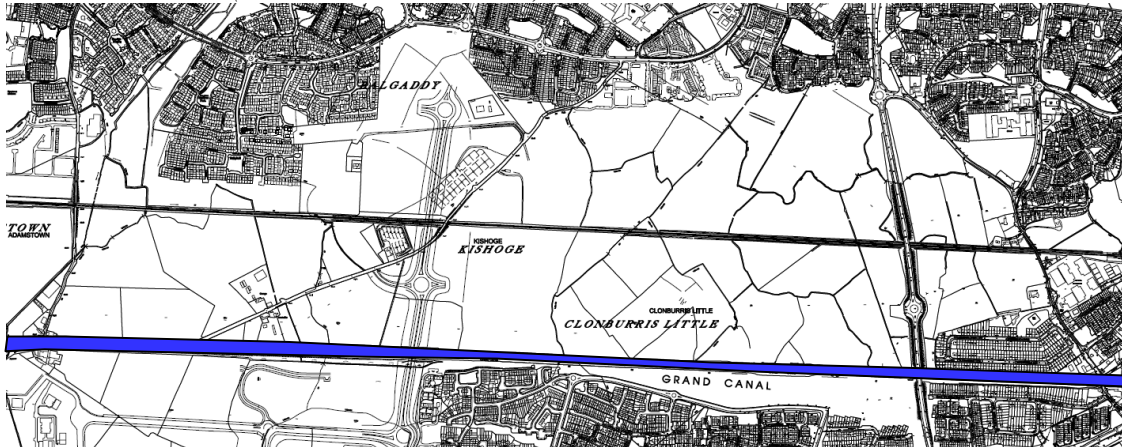


Figure 5.2. Location of the Grand Canal indicated in blue.

The canal was opened to cargo boat traffic on February 2, 1779 and the first passenger service began in 1780 between Dublin and Sallins. The introduction of the railways brought about a decline in traffic, and the last boats were withdrawn in 1959-60. The canal is now operated as a leisure amenity and is owned and administered by Waterways Ireland.

The section of the canal within the SDZ/LAP has 2 no. lock gates, a lock gate cottage and a unique form of overflow system which takes water from the west of the 11<sup>th</sup> lock, runs parallel to the north of the canal and re-enters the main waterbody to the east of the 9<sup>th</sup> lock. This system ensures that the canal does not overflow (see figure 5.3). The canal system and the associated Cappagh Overflow is a self contained waterbody. It is not fed by, nor does it feed any of the wet ditches or streams in the vicinity.



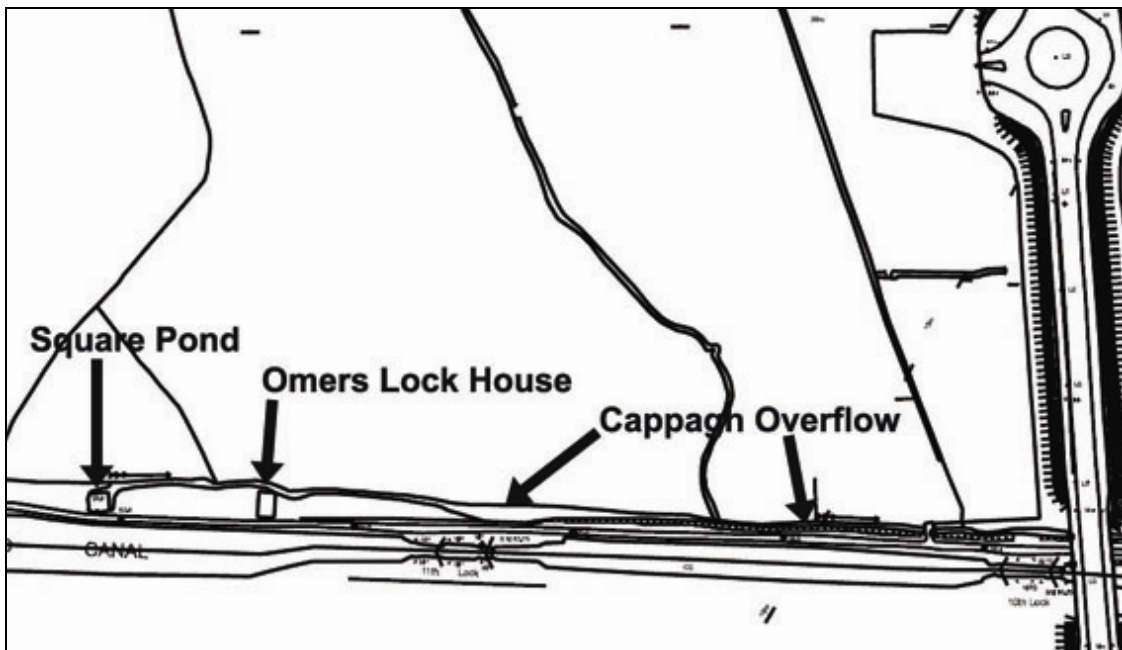


Figure 5.3. Location of Cappagh Overflow Stream.

The Grand Canal is a proposed Natural Heritage Area (pNHA). This is a designation of national importance under the Wildlife Act 2000. A proposed Natural Heritage Area enjoys statutory protection under the County Development Plan. These designations are indicated on figure 5.4.

The bank and hedgerow to the north of the canal, along with the Cappagh Overflow appear to be rich in flora and fauna. The northern bank is protected under the proposed Natural Heritage Area, while sections of the Cappagh Overflow are located outside of the proposed Natural Heritage Area. Both the north bank and the Overflow contain protected species under national and EU legislation.

*The Dublin-Kildare-Cork railway line (DKC).*

The Dublin-Kildare-Cork railway runs across the central section of the site on an east-west axis. The railway line consists of 2 no. rail tracks, associated fencing and signalling features. To the north and south of the railway line are significant ditch systems which flood during the winter. The Kildare Route Rail Improvement Project is currently under construction and will be completed circa 2010. It will involve the construction of 2 new stations and a 4 track system through the laying of 2 additional tracks to the north of the existing tracks. This and additional works will remove the northern bank, hedgerow and ditch along with the section of ditch between the Fonthill and Ninth Lock Roads.

The Kildare Route Project EIS identified the ditches as possessing common flora, however the habitat value of the ditches, wet ditch network and hedgerow system was recognised for the ecological linkages provided. There are no heritage, habitat or landscape designations associated with the area of the railway according to the EIS.

*The Fonthill Road (FR).*

The Fonthill Road was constructed in 1998 on a north-south axis on a raised earthen bank in order to cross over the DKC and Grand Canal. The earthen banks were landscaped and have grown into semi-mature tree planting. There are no heritage, habitat or landscape designations associated with the Fonthill Road. The Fonthill Road bridges the Grand Canal (a pNHA) adjacent to the 10<sup>th</sup> Lock.

*The Outer Ring Road (ORR).*

Constructed in phases between 2004-2007, the section of the ORR within the site consists of approximately 1,100m of single and dual carriageway road laid out on a north-south axis between the Adamstown Roundabout and the bridge over the Grand Canal (a pNHA). The ORR bridges the Grand Canal 1.4km to the west of the 11th Lock. The EIS for this section of the ORR undertook thorough habitat and cultural and archaeological studies. The main lands of interest were located to the south of the Grand Canal within the lands occupied by Grange Castle Business Park. Aside from the Grand Canal, no sites of interest were identified within the SDZ/LAP lands.

*Fonthill Link Road (FLR).*

The FLR was constructed between 2005-2006 as part of the ORR project. The section of the FLR within the site consists of approximately 1,460m of single carriageway road laid out on an east-west axis between the Adamstown roundabout and the Fonthill Road (FR). Bus priority and cycle routes are included in the scheme. There are no heritage, habitat or landscape designations associated with the FLR (Arup, Adamstown Roundabout to N4 scheme EIS p120-129).

### 5.3. Biodiversity, Flora and Fauna.

The lands comprise a variety of land uses and habitat types. These include:-

Grass & Marshland.	Dry Meadow (GS2); Wet grassland (GS4).
Woodland & Scrub.	Scrubland (WS1); Hedgerows (WL1); Treelines (WL2).
Freshwater.	Watercourses (FW2); Canal (FW3); Temporary and permanent water-filled ditches (FW4).
Cultivated & Built Land	Horticultural Land (BC2); Stone walls and other stonework(BL1); Earth banks (BL2); Buildings and other artificial surfaces (BL3).
Exposed Rock & Disturbed Ground.	Spoil and bare ground (ED2). Recolonising bare ground(ED3); Refuse and other waste (ED5).

(Source: Fossit, *A Guide to Habitats in Ireland*, 2000, *The Heritage Council*).

From the above list, and from information provided by various sources, it would appear that the habitats in the area include watercourses, canal, wet grassland, hedgerows, temporary and permanently water filled ditches. This information is elaborated upon further in the following sections of this chapter.

The lands are subject to certain protective designations identified in the County Development Plan 2004 including several general areas of the site where Trees and Woodlands are to be protected.

#### Protected Species and Areas.

From the various information sources used it would appear that the SDZ/LAP lands potentially contain a number of protected species. These include:-

##### *Fauna.*

Confirmed Species.	Legislative Protection.
White Clawed Crayfish	EU Habitats Directive; Irish Wildlife Acts 1976 & 2000
Otter	EU Habitats Directive; Irish Wildlife Acts 1976 & 2000
Lapwing	Irish Wildlife Acts 1976 & 2000
Common Frog	Irish Wildlife Acts 1976 & 2000

Unconfirmed Species.	Legislative Protection.
Bat (Unconfirmed)	EU Habitats Directive; Irish Wildlife Acts 1976 & 2000
Badger (Unconfirmed)	Irish Wildlife Acts 1976 & 2000

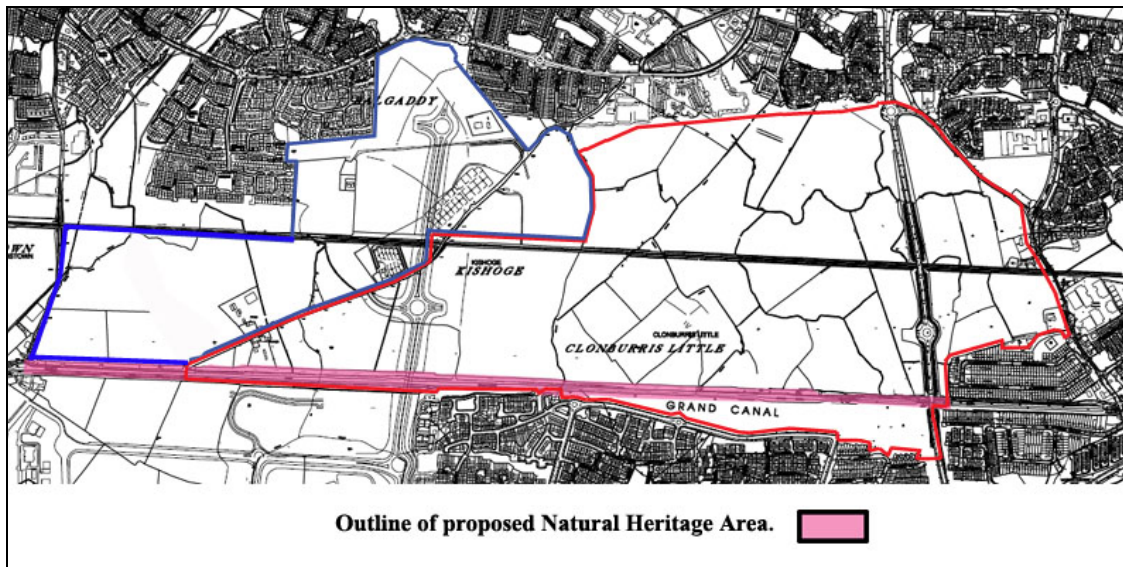


*Flora.*

No source has identified the Clonburris lands as containing recorded examples of protected Flora.

*Designated areas for protection.*

The Grand Canal is the only area of land within the Proposed Clonburris Plan area which is specifically designated for protection. The Grand Canal and associated open space forms the southern boundary to the lands. The Canal is designated as a proposed Natural Heritage Area (pNHA). The boundary of this area includes the Canal waterbody and associated locks, the square pond and a small section of the Cappagh Overflow Stream, the whole of the north facing embankment along with areas of the southern embankment. The area is outlined on figure 5.4.



**Figure 5.4 Area of proposed Natural Heritage Area.**

In addition to being a habitat for a number of common bird, fish, plant and mammal species, the section of Grand Canal and Overflow Stream within the lands are also habitats for several species protected under Irish and EU legislation such as the Otter and the White Clawed Crayfish. Certain trees and structures along the north bank of the canal, within the pNHA area may be roosting habitats for bat species, also protected under EU legislation. It has been stated locally that Daubenton's and Pipestrelle Bats have been spotted along the relevant stretch of the Grand Canal, however this has not been confirmed in any officially recognised bat survey.

The aeration of the Canal body by the lock and overflow systems maintains the high water quality of the canal and Cappagh Overflow Stream.

### **Habitats outside designated areas.**

As outlined in section 5.3 above, several habitats which would appear to have biodiversity value exist within the area, most of which fall outside areas designated for protection. Amongst these are the eastern section of the Cappagh Overflow Stream, and the temporary and permanent water-filled ditches and associated ancient barony and townland hedgerows of the lands.

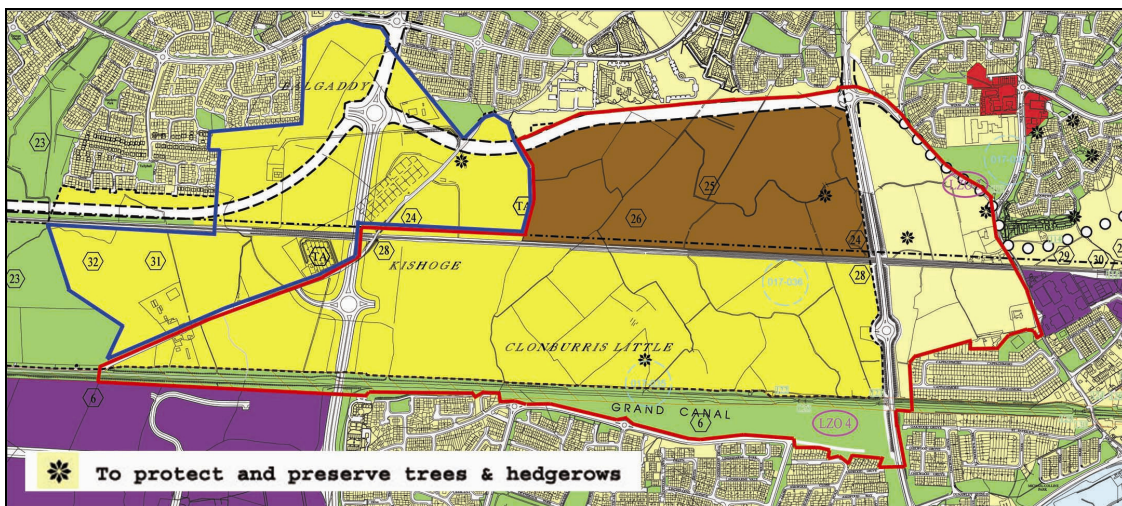
#### *Temporary and permanent water filled ditches.*

Such ditches, which may have ecological value to a wide variety of wetland species of flora and fauna are located throughout the site. The most potentially important ditches (when combined with the presence of hedgerows), are located adjacent to the Grand Canal, and parallel to the railway line as these also form linear routes which can be utilised for movement of mammals and birds.

#### *Trees/Hedgerows.*

Several areas are indicated within the South Dublin County Development Plan 2004 as containing trees to be retained. These trees are not specifically mentioned and are not subject to Tree Protection Orders. The indicative location of the protected trees is shown on Fig. 5.5 below.

A tree and hedgerow study was undertaken by the Parks and Landscape Department of South Dublin County Council in October 2006. This study indicated few tree specimens worthy of preservation. It is submitted that the locations identified on Fig. 5.5 below in the most part relate to hedges, as these correlate broadly with hedgerows noted on the October study (see fig. 5.6). The cluster of *Cupressus macrocarpa* located to the west of Ninth Lock Road are perhaps the only tree cluster on site worthy of preservation.



**Fig. 5.5. Extract from maps 5,6,9 &10. South Dublin Development Plan 2004-2010.**

The hedgerows within the site may be considered to have ecological value for 2 no. reasons: 1) Diversity of species contained within certain noted hedgerows; 2) Hedgerows which form the boundaries of baronies and townlands may be ancient in age, thus accommodating a variety of species along with relict examples of older slow growing and

seeding woodland and hedgerow species. There are no recorded instances of badgers on the lands. A number of hedgerows have been identified as being of interest. These are identified in figure 5.6 below.

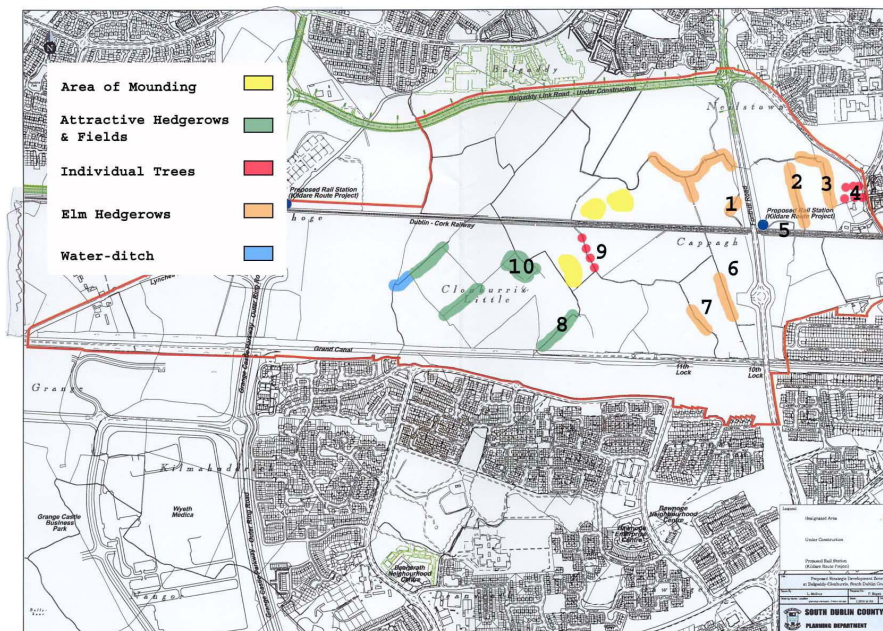


Fig. 5.6. Map of Tree & Hedgerow Survey October 2006.

The lands within the SDZ/LAP do not contain significant examples of mature trees in stands or as individual examples. The majority of trees on the site are semi-mature and are contained within unmanaged hedgerows.

#### *Wet & Dry Meadows.*

The majority of the site consists of meadow habitats. The site contains a number of meadows to the north and south of the railway line which habitually flood during the winter months. Lapwing, a species protected under Irish wildlife legislation (Wildlife Act 1976, S.19, amended Wildlife Act 2000), appears to periodically frequent this location. The EIS submitted for the Kildare Route Project indicates that despite seasonal flooding, the meadows to either side of the railway line do not appear to have developed the characteristics of wetland habitats. One or two small ungrazed wetland areas to the north of the Grand Canal are considered to have ecological value due to the presence of a variety of wetland flora.

The dry meadows within the lands are considered to typical of unmanaged dry grassland meadows in peri-urban areas. The meadows are sporadically grazed and unfertilised and are subject to scrub growth and illegal dumping.

#### *Other habitats.*

Other habitats within the lands include such areas as the banks of the ORR and Fonthill Road, disturbed ground, buildings and artificial surfaces, recolonising bare ground and

stonewalls and other stonework. It is considered from the EIS documentation on the lands that these habitats hold little ecological value.

In conclusion, the studies undertaken in the locality identify a number of areas meriting special attention within the SDZ/LAP lands. The Canal and Cappagh Overflow and certain hedgerows were identified as being particularly vulnerable to human based pressure mainly from possible pollution. Preservation measures for the protection and management of habitats are detailed in the concluding sections of the SEA.

**Observations.**

- Protect pNHA.
- Protect Cappagh Overflow.
- Protect designated species.



## 5.4. Population.

The table below indicates the significant growth in the state and Greater Dublin Area over the last 10 years. The spatial distribution of the population in a manner which balances development in hubs and gateways through out the country, while maintaining the ability of Dublin City to compete on an international level is the strategy behind the NSS. This is emphasized in Section 3, p38 which states:-

*'The NSS supports Dublin's pivotal role in national economic success. It is essential for balanced regional development that the performance of the Greater Dublin Area be built upon and physically consolidated.(section 3, p38).*

The table below (table 5.1) indicates the growth in population within the GDA as a whole. It should be noted that the growth of the region was higher than the growth of the population of the state. This indicates levels of in-migration into the GDA, thereby increasing demand for housing and employment.

**Table 5.1. Population of the metropolitan area.**

	1996	2002	2006	1996-2002 % growth
GDA Population.	1,405,671	1,535,446	1,661,185	18%
Dublin City.	481,854	495,781	505,739	5% (Mean 15.75)
South Dublin.	218,728	238,835	246,919	12.9% (Mean 15.75)
Dun Laoghaire.	189,999	191,792	193,688	2% (Mean 15.75)
Fingal.	167,683	196,413	239,813	43% (Mean 15.75)
4 Authorities as a Percentage of GDA.	75.3%	73.1%	71.4%	

Regarding households and household sizes, the countrywide average has been falling for the last 2-3 decades. This is more evident in the larger urban areas which have a smaller household size than rural counties. South Dublin is somewhat unusual in currently having the highest number of persons per household in the country at 3.03.

The predominant countrywide household type, which accounted for 35% of all households in 2006, consisted of couples along with their children. One person households and couples without children accounted for a further 40% while one in ten households consisted of lone parents and their children. Of these four principle household types the fastest growing category was couples without children which increased by 27.5 per cent between 2002 and 2006.

There were over a million families in the State in 2006 – up 42% compared with twenty years earlier. Most of the increase took place in the most recent decade. The fastest growing category was families consisting of couples (whether married or not) without children. Their number increased by 130% since 1986. There was also strong growth in families with one or two children, while the number of families with four or more children more than halved over the twenty year period. In contrast with nationwide

trends, the baseline for the area surrounding the site shows high amounts of 4-6 person households.

**Current Baseline.**

The site itself is comprised of sections of several Electoral Divisions (ED). Due to the agricultural nature of the lands the population of the site itself has not changed significantly over the course of the previous decade. The population in the site is characterised by isolated dwellings, temporary Traveller halting sites and 2 no. new Traveller housing schemes currently under construction (see fig. 5.7). However, the EDs of the site, which include adjacent lands display rising levels of growth in the period between 1996 – 2006 (see table 5.2 below). It should be noted that the Lucan-Esker ED recorded the 4<sup>th</sup> greatest inter-censal population change in the Republic of Ireland during the period 2002-2006 indicating rapid recent levels of residential growth in a previously undeveloped area.

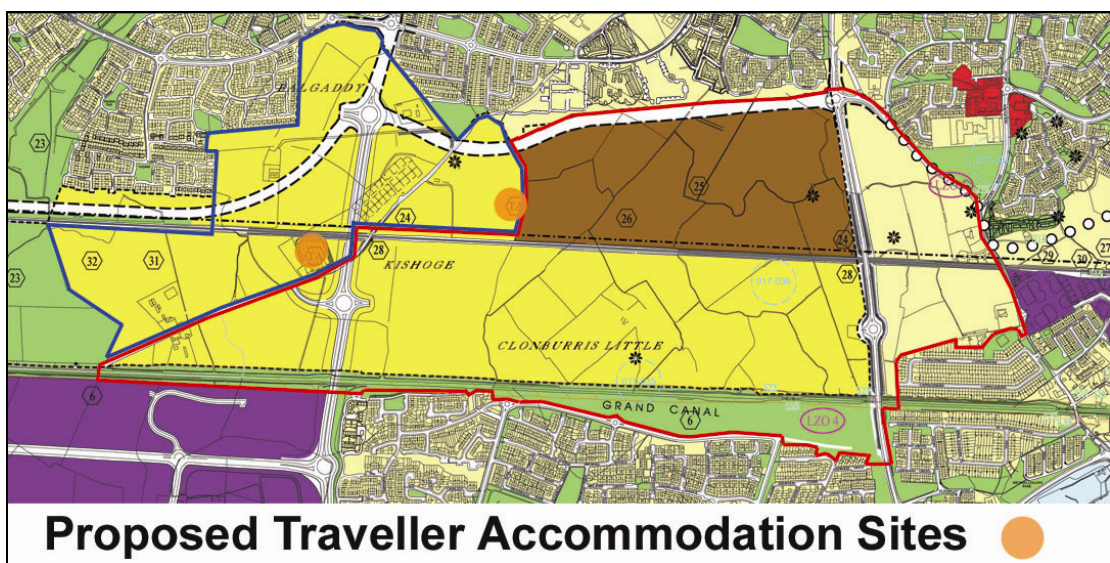


Figure 5.7. Location of Traveller Housing Schemes currently under construction on the lands.

Table 5.2. Population change between 1996-2006

	1996	2002	2006
<b>Clondalkin-Cappaghmore.</b>	1,745	1,577	1,927
<b>Clondalkin-Dunawley.</b>	9,190	10,656	10,876
<b>Lucan-Esker.</b>	7,364	20,807	25,778
<b>Total.</b>	18,299	33,040	38,581

The growth of the population in the EDs surrounding the site should be read in the context of the rapidly decreasing populations in the majority of EDs within South Dublin. Only 20 out of the 49 EDs in the county recorded increases in population in the period between 2002-2006. Of the 20 EDs, 5 recorded increases in the thousands. The remaining increases were double and triple figure increases, indicating that development was concentrated in a number of EDs where land was plentiful.



Table 5.3 below indicates the numbers of persons per household in the surrounding EDs by comparison with the nationwide average. The table indicates significantly lower than average 1 person households in the area, average amounts of 2-3 person households and average to higher amounts of 4-6 person households, indicating high amounts of families in the surrounding area. No figures are available for the breakdown of family sizes within South Dublin.

**Table 5.3. Breakdown of household sizes.**

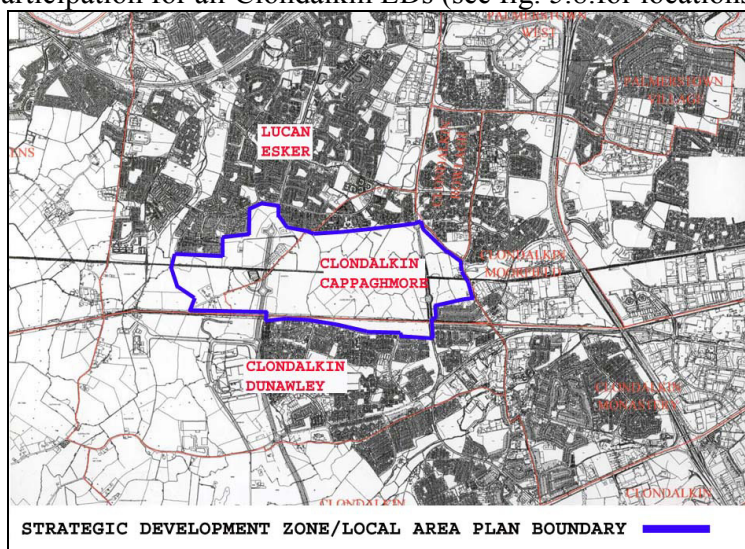
	1 person	2 person	3 person	4 person	5 person	6 person
<b>National</b>	22%	28%	18%	17%	9%	4%
<b>Cappaghmore</b>	15%	29%	22%	18%	10%	6%
<b>Dunawley</b>	11%	30%	21%	18%	12%	9%
<b>Esker</b>	16%	30%	19%	21%	9%	4%

The lands currently provide very limited employment. In the immediately surrounding area are located a number of small retail units and community infrastructure such as schools, centres and business incubation units. The Grange Castle Industrial Estate/Business Campus, the premier business park in the county is located to the south-west of the site and is a regional employer.

**Table 5.4. 2002 Employment figures for EDs.**

	Total Pop. 2002	Employed 2002	Nat. Average Employed 2002
<b>Clondalkin-Cappaghmore</b>	1,577	578 (36%)	(96%)
<b>Clondalkin-Dunawley</b>	10,656	4,648 (43%)	(96%)
<b>Lucan-Esker</b>	20,807	12,008 (57%)	(96%)
<b>Total</b>	33,040	18,299 (45%)	(96%)

The figures contained within the table above indicate below average amounts of employment participation for all Clondalkin EDs (see fig. 5.8 for locations of the EDs).



**Figure 5.8 Outline of Electoral Districts within SDZ/LAP.**

**Observations.**

- High population increase in area in past 10 years.
- High amounts of 4-6 person household in the area by comparison with nationwide average.
- Low amounts of 1 person households in the area by comparison with nationwide average.
- Higher unemployment levels in the area than the national average.

## **Human Health.**

### **5.5. Air.**

The EU directive on ambient air quality and management (The Air Quality Framework Directive; 96/62/EC) has been transposed into Irish legislation by the Air Quality Standards Regulations 2002 and the Ozone Regulations 2004, which detail strategic objectives in relation to air quality and management.

These objectives include setting pollution standards which will avoid, prevent and reduce harmful effects on human health and the environment, maintaining ambient air quality where it is of a good standard and improving it in other cases.

The site accommodates a number of elements of infrastructure which create noise and air pollution. These include the rail-line, ORR and Fonthill Road and Fonthill Link Road. Documentation submitted as part of planning application and infrastructure projects on or around the lands provide some detail regarding monitoring undertaken to establish air quality and emissions.

Prevailing meteorological conditions for the site are affected by the proximity of the lands to the Dublin Mountains. The lands are between 3-4 kilometres to the north of Baldonnell Military Aerodrome, and would share similar climactic conditions with regard to wind speed and direction. Information submitted as part of the District Centre EIS indicates that the wind in Baldonnell is from the south-west with an average speed of 2-4 metres per second. Wind is of great importance for dispersing air-bourne pollutants, especially ground level sources such as traffic emissions.

Studies indicate that in recent years, the focus of air pollution monitoring has shifted from black smoke, sulphur dioxide (So<sub>2</sub>)(both from home heating) and lead (petrol based), to monitoring benzene, nitrogen dioxide (No<sub>2</sub>)and particle matter (PM<sub>10</sub>), which are derived from traffic based sources.

The baseline studies for the sections of the projects located on or proximate to the SDZ/LAP lands included detailed air and noise sections the EIS documents for the Outer Ring Road, The Fonthill Link Road and the Kildare Route Project. These studies indicated that the existing and future pollution levels for benzene, NO<sub>2</sub> and PM<sub>10</sub> with or without the schemes in place would be below EU limit values. This is due to less congestion on the new road as well as improved emissions from more efficient road and rail vehicles.

No monitoring of air pollution post construction of the ORR or the Fonthill Distributor Road appears to have been undertaken.

#### **Observations.**

- Road based transport is the greatest source of airbourne pollution.
- Studies indicate pollution levels below EU limits prior to and after construction of nearby road schemes.
- Wind conditions in the locality disperse airbourne pollution.

## Human Health.

### 5.6. Noise.

The Protection of the Environment (POE) Act 2003 includes noise in the definition of environmental pollution. In seeking to reduce noise pollution ‘best available technology’ (BAT) is to be utilised.

Noise surveys for the infrastructural and District Centre projects (*ORR EIS Volume 2, p153-159*)(*KRP EIS Volume 2, p133-139*), were generally undertaken in tandem with air monitoring. There is no legislation in Ireland relating to assessing the impact of train or roads noise, however *guidance* on baseline noise measurement is generally taken from UK documents such as ‘the Calculation of Railway Noise (1995)’, while the UK’s ‘Noise Insulation (Railways and other Guided Transport Systems) Regulations) 1996 was used to establish an acceptable level of disturbance. The UK ‘Noise Insulation Regulations 1975’ are used to adopt traffic noise criterion. This ‘Noise Insulation’ specifies an acceptable noise level of 68 dB(A) during the day and 63 dB(A) at night due to the passing, rather than steady nature of train movements. Road traffic in the area must not exceed 68dB as a whole.

**Table 5.5 indicates typical LAeq levels in various generic settings.**

LAeq Level.	Environment.
Less than 30 dB(A) Leq	Very quiet rural area at night
30-40 dB(A) Leq	Quiet suburban area, (away from major roads) at night.
40-50 dB(A) Leq	Quiet suburban area during daytime
50-60 dB(A) Leq	Suburban area (proximate to major roads) during daytime.
60-70 dB(A) Leq	Urban area/city centre with heavy traffic during daytime.

(Source: extracted from p127, Table 7.5.1, Volume no. 2 of 4. KRP EIS).

The table below indicates the noise levels experienced by various locations in proximity to the KRP. Similar noise levels may be experienced by development within Clonburris which is located at the same distance from the railway line.

**Table 5.6. Night-time and daytime noise levels for KRP.**

Day-time threshold	68dB(A) Leq	Night-time threshold	63dB (A) Leq
Location.	Daytime Scenario. Do nothing/With KRP		Nighttime Scenario. Do nothing/With KRP
19 Cherry Orchard Ave.	63	66	54
21 Cherry orchard Ave.	64	67	56
27-29 Cherry Orchard Ave.	64	66	55
31-51 Cherry Orchard Ave.	62	64	53
10.11.29& 30 Cherry Orchard Court.	65	68	56
Beech Row.	64	69	55
Stacumny.	59	64	40
Hazelhatch East.	62	64	51
Hazelhatch Railway Cottage.	<b>76</b>	<b>78</b>	<b>63</b>
Acceptable (UK) limit.	<b>68</b>	<b>68</b>	<b>63</b>

(Source: extracted from p138, Table 7.5.10, Volume no. 2 of 4. KRP EIS).

Increased train movements due to the KRP, and vehicular movements on the ORR and the Fonthill Road and Fonthill Link Road will result in increased noise within the site. The EIS documents for the ORR, and Fonthill Link Road indicate that mitigation was not required for the roads projects as none of the monitoring stations indicated that the noise levels from the projects would affect existing dwellings. Noise level standards similar to those required in the rail project, and advocated by the RPA were utilised in assessing the roads projects (The Noise Insulation Regulations, 1975, UK).

The KRP EIS indicates that increased train movements, specifically intercity trains, will result in increased noise volumes to adjacent properties. However, these movements will not affect existing or proposed properties in proximity to the KRP under current daytime noise standards (see table 5.6). The EIS indicates that Hazelhatch Cottages, which are not on the Clonburriss site but are located in close proximity to the railway line, will experience noise levels above night time criterion. Proposals for the future location of properties within the SDZ/LAP should take note of the distance of the Hazelhatch Cottages from the line and the potential for increased movements on the railway line.

None of the studies undertaken for the roads EIS documents predicted significantly increased noise levels in adjacent dwellings. No monitoring has been undertaken post-construction of the roads projects.

#### **Observations.**

- Noise from nearby roads schemes does not breach acceptable guidelines.
- KRP EIS indicates buildings adjacent to the rail line may suffer from breaches of noise guidelines.

#### **Soil & Water.**

##### **5.7. Soil.**

Figure 5.9 below identifies the general geological formations in the locality. The site is roughly outlined in red. This image seems to indicate that the bedrock of the site is completely comprised of limestone, with the south-eastern section being of a slightly later formation.

The EIS for the ORR phase 1 & 2, which provides the only detailed assessment of the soil and geology of the site, indicates that the bedrock on the northern end of the site lies at a shallow depth below the surface of the soil. This is indicated due to the presence of a number of rocky outcrops in the locality.

According to the Geological Survey of Ireland (GSI) maps for the area, consulted in compiling the ORR, the soil or overburden in the area is comprised of glacial drift with a number of rock outcrops. The glacial drift is known in the form of brown and black boulder clays. In addition to the glacial drift, alluvial soils (those deposited by flowing water) have been deposited in the area.

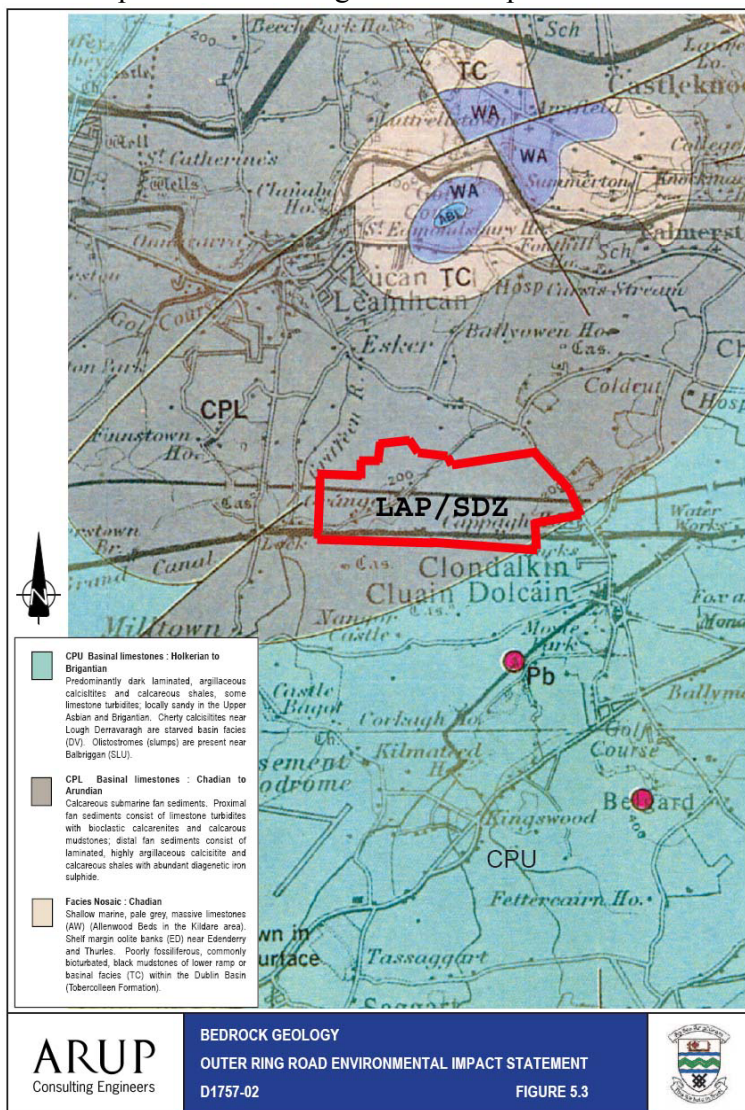


Glacial tills are generally over-consolidated and are therefore of low compressibility. They are typically firm to stiff with low porosity, but are prone to softening and deterioration in wet weather, especially if heavily trafficked. The land to the west of the site is known as Esker. This area is considered to be a part of the Esker Riada, a series of low, narrow, winding glacial hills which run east-west from Dublin to Galway.

Additionally, soil and water aquifers are intrinsically linked. Potential for contamination occurs in areas where there are thin levels of soil cover.

**Observations.**

- Avoid over-compaction of existing soils where possible.



**Fig. 5.9. Geology of site. (Extract from ORR phase 1 EIS).**

## 5.8. Water.

The existing lands are served by a number of natural and manmade watercourses and drainage channels. These include the Gallanstown Stream, the Kilmahuddrick Stream, the Grand Canal, the Cappagh Overflow Stream along with a number of wet drainage ditches noted in various EIS documents and site surveys. These watercourses and drainage ditches are identified on figure 5.10 below. The EIS for the ORR identifies a tributary of the Griffeen River which crosses beneath the road to the north of the railway line. This desk study has been unable to pinpoint the location of this stream. It should be noted that the Grand Canal does not drain any of the lands it passes through at this location.

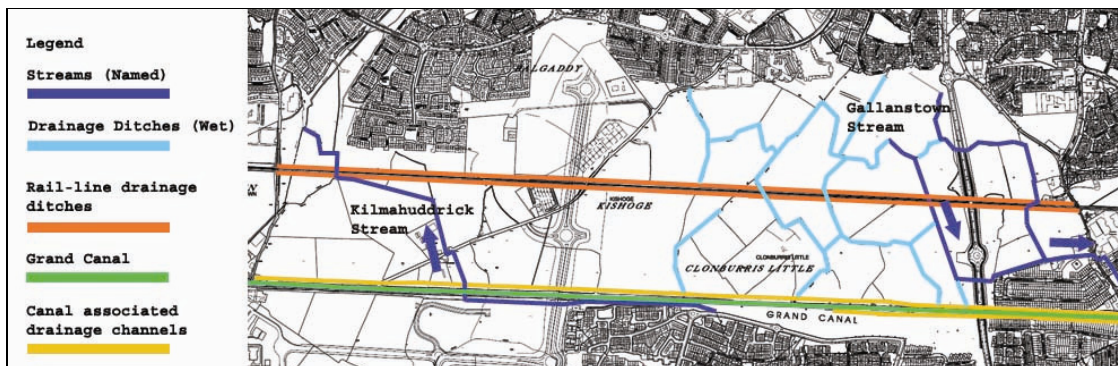


Figure 5.10. Watercourses and drainage channels within SDZ/LAP site.

For the purposes of implementing the European Water Framework Directive, Ireland has been divided up into River basin Districts. South Dublin County falls within the Eastern River District, or Hydrometric Area 10.

The initial characterisation report prepared for the Eastern River Basin District (ERBD) concluded that the rivers Griffeen and Camac are the principle surface water features in the larger area around the site.

### *River Camac & Gallanstown Stream.*

The rivers of Dublin (Sweeney, C. p10-11) identifies the general location of the streams and watercourses in and around the site. The Gallanstown Stream, described in further detail on p73 of the same book details the course of the river on its way to join the River Camac at Kylemore Road. The ORR EIS identifies the Camac as being a salmonid river with a population of Brown Trout. There are no records of trout in the Camac tributary streams.

The ERBD report considered the River Camac an 'At Risk' River within the Liffey Catchment Area. The report concluded that the majority of 'At Risk' rivers are polluted by diffuse sources such as agricultural or urban 'run-off'. The other main source of pollution, point-source pollution eg. outfall pipes from treatment plants, does not appear to have a significant effect on rivers within the Liffey Catchment Area. Urban run-off also poses a threat through the 'flashy' (S.7.1.2 ERBD Characterisation Report) nature of



rainfall increasing levels of heavily polluted run-off after dry periods. The Camac is also subject to morphological pollution, which includes embankment, channelisation and flood protection.

Data gathered from the various EIS sources relevant to the site confirm high levels of iron, copper, aluminium, chromium and lead in the receiving ditches and drains to the eastern section of the site in the vicinity of the Gallanstown Stream. The EIS stated that the high levels were due to the presence of burnt-out cars located on the lands and within the stream (S.11.1.3 Bagaddy Town Centre EIS).

The report states that rivers are at particular risk from run-off from roads, specifically rivers such as the Camac and associated tributaries as a result of the roads feeding onto the M50 (S.7-13 ERBD Characterisation Study).

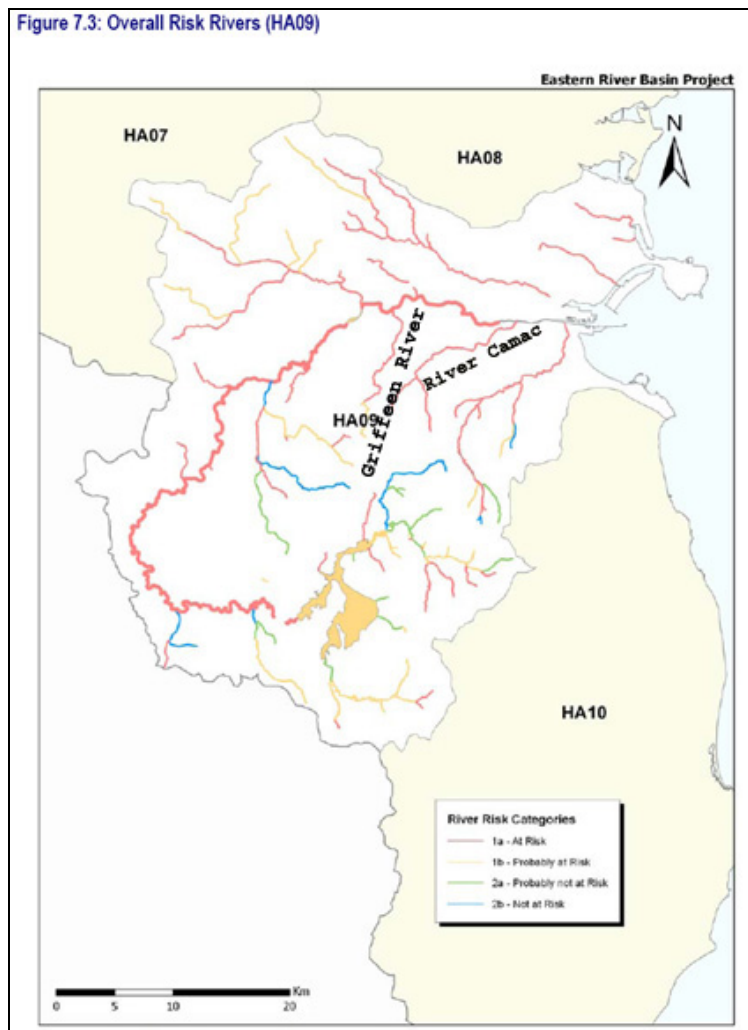


Figure 5.11. At Risk Rivers. Extract from the Characterisation of the Liffey Catchment Area Study.

#### *River Griffeen and Kilmahuddrick Stream.*

The ERBD report characterised the Griffeen as an ‘At Risk’ river. Diffuse pollution pressures account for the majority of the pollution experienced within the Griffeen. Like the Camac, the Griffeen is also subject to morphological pollution pressures.

The Griffeen is a salmonid river with brown trout found located in the Griffeen and the Kilmahuddrick stream. The KRP involved the re-routing of the Kilmahuddrick from its previous course northwards beneath the railway line. The river is now channelled to the south of the railway line to meet with the Griffeen. Run-off from the KRP within the site is expected to drain into the Griffeen and Kilmahuddrick after filtration through a SuDS system.

#### **Observations.**

- The site drains to two river networks, both of which are salmonid rivers.
- The Kilmahuddrick, a tributary of the Griffeen is also a salmonid river.
- Discharge to the riverine systems should be kept to a minimum.

#### **Material Assets.**

### **5.9. Transportation & Traffic**

Notwithstanding the development potential for the Clonburris area, a number of key baseline issues must be discussed. The lands are not currently subject to significant transport demand. The site is sparsely populated with limited transport movements. The transport baseline on the site can be divided into the Dublin-Kildare Railway Line, and the existing strategic roads network which runs across the site. Lynche’s Lane, a country road is located to the west of the site and intersects with Hayden’s Lane.

#### *Rail Transport.*

Public transport through the Clonburris area is currently restricted to nearby rail stations (outside the Clonburris development area), and a limited number of bus services which are routed around the outer edges of the site. There are extensive improvements proposed for the public transport system in the area – including two new rail stations and increased rail frequencies as part of the Kildare Route Rail Improvement Project.

Briefly, the Kildare Route Project involves:-

The number of tracks between Cherry Orchard and Hazelhatch on the Heuston-Kildare line increased from two to four with the new tracks being located to the North of the existing. A number of new stations are to be built, of which 2 are to be located within the site. This will enable commuter services to be separated from regional and intercity services, thereby improving service speeds and capacities.

Additional potential transport investments serving the site include the proposed construction of the Interconnector rail tunnel in central Dublin and the new Metro West light rail system. It is proposed that the Metro West light rail system will connect Tallaght and Dublin Airport, following a generally orbital routes parallel to the M50. Metro West is to be capable of carrying approximately 20,000 persons per hour, at frequencies of up to 2 minutes if required. The Interconnector rail tunnel is proposed to

connect Heuston Station with the existing Dart line, allowing for single train journeys along the whole of the National rail network. Both infrastructural projects will greatly improve the accessibility of the site.

#### *Road Based Transport.*

Key north-south corridors through the LAP include the R113 Fonthill Road which crosses the area towards the eastern end of the area, and the R136 Outer Ring Road (ORR), which crosses the area towards the western end. The R113 Fonthill Road commences from N4 near Lucan to N7 near Clondalkin. The ORR is a regional strategic route providing connections to the Dublin Airport and the outer extents of Dublin.

The high level of population growth within Greater Dublin coupled with increasing levels of car ownership and the lack of a fully integrated, high quality multi-modal public transport network has resulted in a highway network which is incapable of accepting any additionally generated traffic. The overall network, including the strategic roads within the site have reached capacity as a consequence of a “predict and provide” road building policy.

Within the current residential communities which surround the Clonburris area, the prevailing design types creates a segregation of communities through a combination of road hierarchy and high walls and fences along principal routes. The walls and fences severely restrict the potential for shorter journeys to be on foot or by cycle thus encouraging car driving.

#### **Observations.**

- The surrounding road network is at capacity.
- The site is to be served by upgraded public transport.
- The undeveloped site and layout of the surrounding area do not encourage pedestrian or bicycle movement.

### **5.10 Water Supply**

The medium-term strategy for drinking water in South Dublin County Council is based on the Greater Dublin Water Supply Strategic Study (GDWSSS), which was commissioned by the Department of the Environment, Heritage & Local Government (DEHLG) and published by Generale des Eaux /MC O’Sullivan in 1996. This report was revised in part in 2000 to ensure compliance with Strategic Planning guidelines and to take into account higher than anticipated growth in the Dublin Region. The GDWSSS forms the basis for the assessment of needs for the capital investment required to secure the water supply system for the Greater Dublin Region for the period 1996-2016.

The focus of the study was the existing critical water supply-demand balance and the need to meet the projected demand for water over the 20-year period from 1996-2016. This required that adequate water resources and associated treatment capacities would be available to cater for projected demands.

South Dublin County Council is continually progressing a number of strategic actions in order to deliver on the GDWSSS:-

- Leakage Control.
- Rehabilitation.
- Capital Investment.
- Demand Management.
- New Source Development.

*New Sources Development.*

Fingal County Council has plans to upgrade Leixlip Water Treatment Plant by 2009. The treatment plant feeds the Lucan-Palmerstown High Level Water Supply Scheme, which was completed in 2005, and serves as a new source of water to the western side of the South Dublin County Council administrative area. Dublin City Council has plans to extend the treatment capacity of Ballymore Eustace, from which South Dublin County Council currently receives most of its water supply. A new major source for the Dublin Region is however required to meet long term water supply needs. A number of options are presently being considered and a Strategic Environmental Assessment is being prepared by consultants in this regard.

*Baseline.*

The water needs of the site and all of the proposed development options is assured. The Dublin Demand Supply Group consider that there is capacity for the development of all currently zoned lands in County Dublin. The water supply baseline on the existing lands includes a 600mm water pipeline which crosses the railway line along the Fonthill Road feeding from Belgard Reservoir. There is a 400mm pipeline running alongside the Adamstown Link Road within the western section of the site. It is considered that development of the site for any of the four scenarios would require the laying of a 400mm pipeline from west to east from the existing pipeline alongside the Adamstown Link Road. Such a pipeline would provide water from Peamount Reservoir to be used as a backup supply.

**Observations.**

- Water capacity available for the development of the site.
- Sustainable water usage.



Figure 5.12. Existing high capacity water supply network serving site and surrounding lands..

## 5.11. Waste Water

*Greater Dublin Strategic Drainage Study (GSDSDS).*

The GSDSDS, completed in 2005, identified baselines, policies, strategies and projects for the development of a sustainable drainage system for the Greater Dublin Region. The study examined the infrastructural requirements to the year 2031 in three time frames:

1. Drainage requirements for all developments to year 2002 (Study Baseline Year);
2. Short term situation: drainage requirements for all anticipated developments to year 2011;
3. Long term situation: broad drainage requirements to the year 2031.

It should be noted that the Draft Scoping Report for the SEA to accompany the GSDSDS completed a public display period on the 4<sup>th</sup> of May 2007. The Scoping report added 4 no. new options for resolving the waste-water capacity issues in Dublin, to the 3 no. detailed in the GSDSDS.

The existing baseline for the whole of the western suburbs (including the site) is as follows:-

The lands are served by the 9B sewer which serves whole Lucan/Clondalkin area. The 9B sewer and the 9C sewer which serves Blanchardstown flow into the Grand Canal Trunk Sewer (GCTS). The GCTS ultimately flows into the Wastewater Treatment Works at Ringsend (see figure 5.13). The Tallaght area is served by the Rathmines & Pembroke sewer.



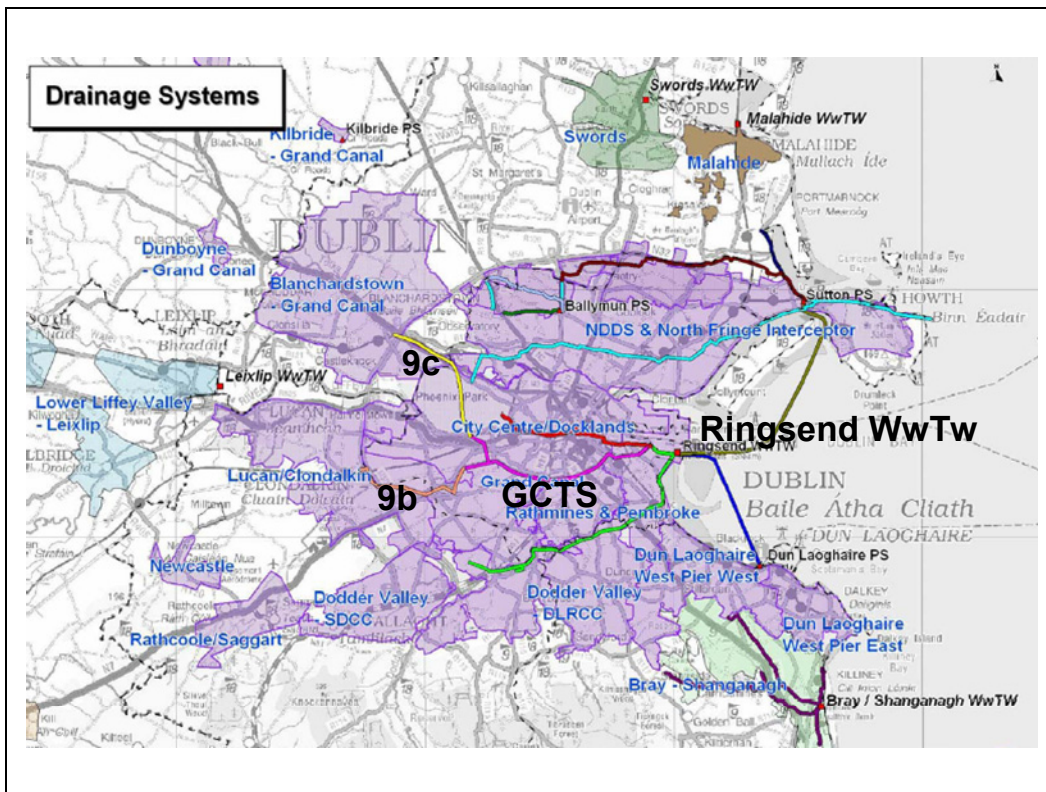


Figure 5.13 Main Trunk Sewer Network.

These major sewers were designed to carry two types of material, foul waste and storm water. The foul waste section or cell is smaller and has less capacity than the storm water cell. Please see figure 5.14 for a cross section.

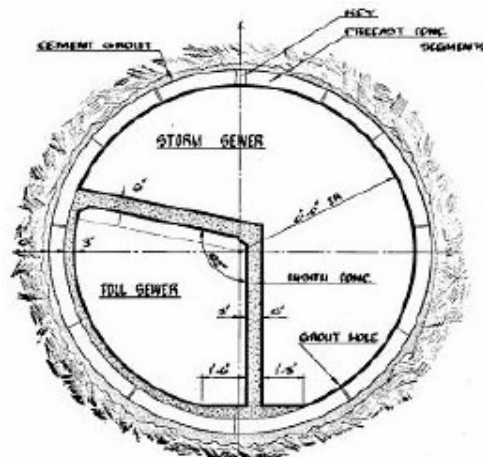


Figure 5.14 Cross Section of 9b sewer.

The foul cell of the GCTS has capacity to accommodate additional foul flows. The storm cell of the tunnel has spare capacity, which can be used to relieve excess flows from the Rathmines and Pembroke catchment and potentially some additional flows from the western environs. It is stated within the Drainage Study that upgrading will be required to

the GCTS in order for all currently zoned lands in the 9B & 9C catchment area to be developed.

While the GDSDS states that the two principal branch sewers feeding the GCTS (foul) 9C & 9B are operating at flows in excess of their design capacity, monitoring information available to South Dublin County Council would appear to indicate significant capacity in the 9B sewer. This would appear to indicate capacity to accommodate development on the site at Clonburris. South Dublin County Council Environment Department is also satisfied with the capacity of the GCTS to accommodate the development of all zoned lands in South Dublin.

The Waste-water Treatment-works (WwTw) in Ringsend currently operates at a Person Equivalent (PE) of 1.9 million, which is over the current design PE of 1.6 million. Development to 2011 and 2031 will result in potential PE of 2.4 and 2.8 million for Ringsend requiring major expansion in order accommodate additional development past 2011, and again prior to 2031. However the capacity constraints of the site at Ringsend will only allow expansion to 2.14 million PE. As this is the major plant serving the region, capacity and servicing issues may require limiting factors to be put in place in order to maintain the WwTw at functioning capacity. Such factors include:-

- Constrain development;
- Reduce non-domestic load;
- Divert loads to other plants.

It would appear that the main waste water constraint to the development of all zoned lands in South Dublin, possibly including Clonburris is the capacity within the WwTw in Ringsend.

The GDSDS seems to indicate within its conclusions that 2B and 2C were the only feasible options. These would require the redirection of the waste-flows from the 9B sewer to a new 350,000 person equivalent WwTw in South County Dublin (2B), possibly on the grounds of Grange Castle Business Park, or to a 450-850,000 PE regional facility in Portrane, County Dublin in the medium term (2C). It should be noted that the Draft Scoping SEA document expressed no preference. In a submission to the Draft Scoping Report, South Dublin Environment Section stated preference for option 2C.

The GDSDS assumes that the implementation of SuDS in all developments post 2011 will result in no increase in stormwater run-off rates and hence no additional flood risk. The GDSDS included a 10% increase in rainfall intensity within the future modelling to allow for climate change impacts by 2031.

In order to meet existing to medium term development needs, the following projects and strategies need to be implemented in the South Dublin Council area:

- The Saggart / Newcastle / Rathcoole Drainage Collection Scheme.
- Adamstown Foul Sewer.



This scheme involves the provision of a new pumping station at Tobermaclugg and twin rising mains and gravity sewer to connect to the 9B foul sewer at Balgaddy.

- Foul Sewer at Clonburris/ Balagaddy.

The project involves laying of a 750/900mm gravity sewer at Clonburris to receive foul water from Adamstown rising mains discharging into the existing 9B sewer at Balgaddy. Laying of the sewer was completed in 2006.

- New Policies.

This involves implementation of new policies recommended in the Greater Dublin Strategic Drainage Study. New drainage policies are to be implemented through maximising use of existing assets.

- Catchment Based Approach to the Water Framework Directive.

The residential population of the Lucan-Clondalkin catchment, excluding the population from the recently connected Saggart, Rathcoole, Newcastle study area (F009), is projected to increase by some 47% at the design horizon of 2011 and by 141% at 2031. This corresponds to an increase in the catchment area to 3,912 ha in 2011 and 5,120 ha in 2031. Non-domestic inputs are estimated to increase by an additional 24,000 PE for 2011 and some 48,000 PE by the year 2031.

#### *On-site foul water drainage baseline.*

The land use of the site is mostly agricultural which has resulted in limited need for foul-water drainage. The two permanent Traveller Halting sites within the area are served by foul drainage sewers. A substantial infrastructural foul water drainage sewer has been laid across the site along the line of the Fonthill Link Road in order to service future development of the lands under the residential and District Centre zonings of the 1998 County Development Plan. The sewer is a 750/900mm gravity sewer built to receive foul water from Adamstown rising mains in addition to accommodating the development of the site. These pipelines are identified on fig. 5.15 below.

There is also a 1050mm pipeline which runs adjacent to the Fonthill Road before continuing east parallel to the railway line. These pipelines drain into the 9B sewer, built to accommodate the growth towns of Lucan-Clondalkin as part of the 1972 Myles Wright Plan for Dublin. This sewer, which was developed to accommodate the proposed populations for the Lucan-Clondalkin area along with high levels of industrial development, is capable of accommodating the development at Clonburris.

#### **Observations.**

- The existing waste water network is capable of accommodating the development of the site.
- The development of the site coupled with additional development in Dublin will require a new wastewater treatment plant in the medium term.

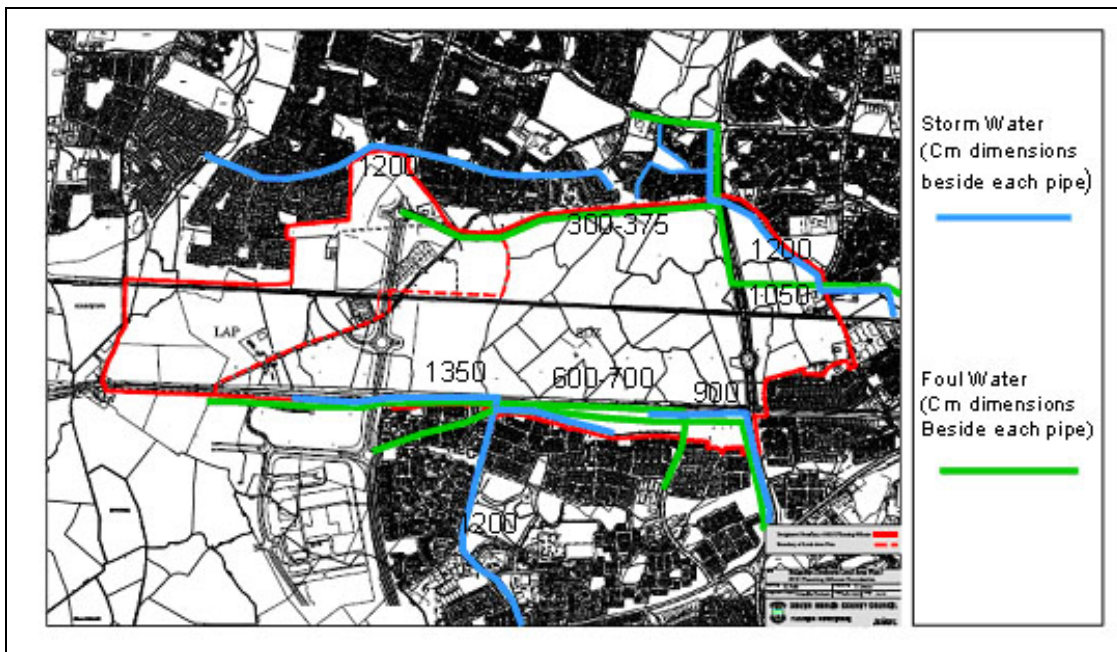


Figure 5.15. Locations of Storm & Foul water pipes in and around the site.

## 5.12 Stormwater & Surface Water Drainage.

The western section of the site adjacent to the Griffeen River has been subject to flooding in recent years. With significant changes in land uses and the possible advent of climate change scenarios, new strategies are being put in place to effectively manage the risk of flooding. At present seven strategic actions are being undertaken by South Dublin County Council to address various stormwater and flooding issues. The Griffeen River Flood Alleviation Scheme, which is the most relevant to the site can be summarised as follows:

- Griffeen River Flood Alleviation Scheme.  
This scheme involved the widening and deepening of the river channel from the river Liffey to the Grand Canal and the provision of culverts under Griffeen Avenue and railway.

### *On-site stormwater drainage baseline.*

The site as outlined does not accommodate significant levels of non-agricultural development. The baseline of the on-site run-off has been dealt with in section 5.6.2 of this document. The foul water drainage baseline of lands adjacent to the site is limited to the piped network to the north and south of the site which services the adjacent housing developments (see figure 5.16 below). Current levels of surface water run-off discharge to the surface water receiving network should not be exceeded.

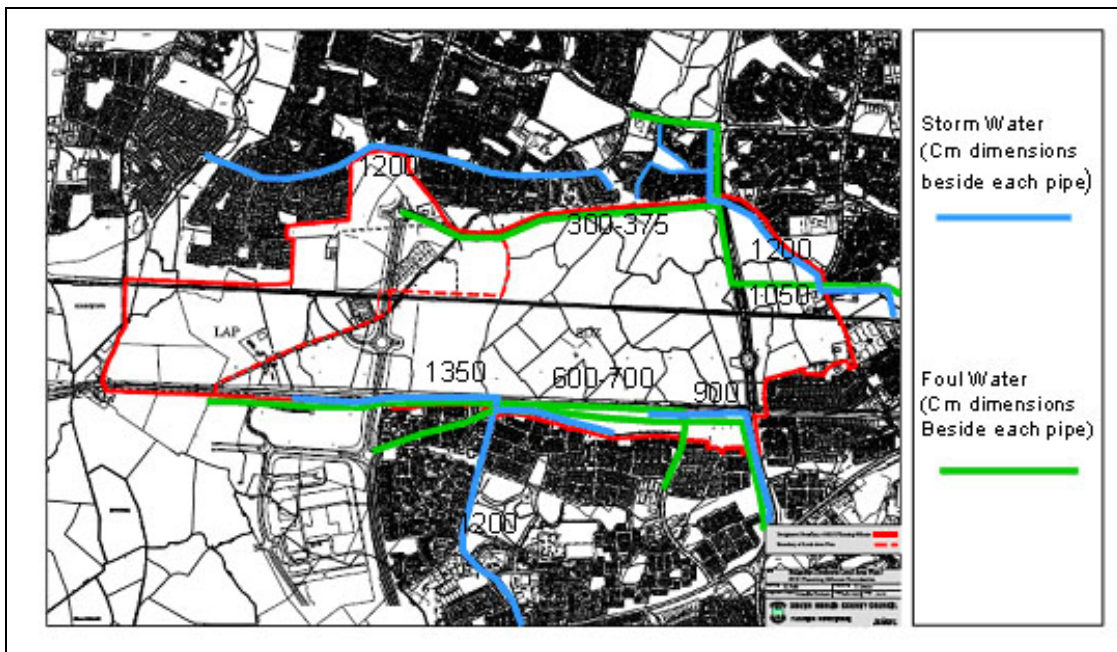


Figure 5.16. Locations of Storm & Foul water pipes in and around the site.

**Observations.**

- The surrounding piped drainage network is capable of accommodating development on the land.
- Run –off is to be maintained at agricultural levels.
- Gravity drainage cannot be used on certain sections of the site due to ground levels.

## 5.13 Energy.

The National Climate Change Strategy document indicates that future electricity generation to meet demand in Ireland over the coming years must be met through renewable resources. This is simply detailed in the figure below. The figure also indicates national energy demand growth from 33,000 Gigawatts to 38,000 Gigawatts from 2010-2020.

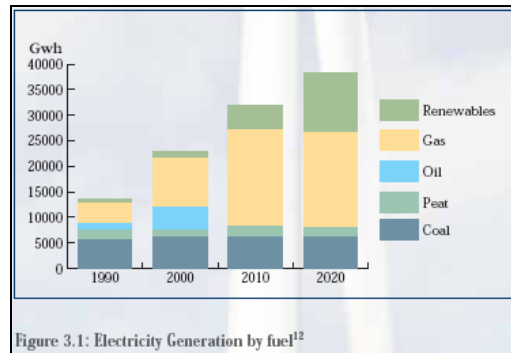


Figure 5.17 Electricity Generation by Fuel (Source, National Climate Change Strategy).

Future generation potential includes ocean-energy creation, more effective power plant energy generation along with increased wind power provision. It is the policy of the Government to actively encourage combined heat and power provision.

Additional electricity saving measures such as electricity Demand Side Management are also promoted within the document. The development of more energy efficient buildings will also reduce demand on electricity and energy supplies. The development of units in accordance with the soon to be updated Guidelines for Sustainable Residential Development will also reduce potential energy demand.

The plan area does not currently generate any significant electricity demand. The general area is currently served by the existing ESB underground and overhead cable network. A 220kv power line traverses the site along the northern edge, roughly following the route of the Fonthill Link Road and Adamstown Link Road. Proposals to lay an underground 110kv cable beneath a wide concrete path along the southern towpath of the Grand Canal are at public consultation stage.

The lands are not currently providers of renewable energy. There are no renewable energy networks in on the site or in the surrounding area.

The lands are not currently serviced by an gas pipeline due to their agricultural nature. The surrounding lands are all supplied for gas (see accompanying map) It is considered that the provision of gas for the site would not be problematic.

### Observations.

- A 220Kv line traverses the northern edge of the site.

- An underground 110Kv powerline is proposed along the southern edge of the Grand Canal.

## 5.14 Solid Waste Collection & Disposal

Several international, national, regional and local objectives are relevant to this issue. As can be seen from the examples below, there has been a direct translation of the proposals put forward at EU level into attempts to work towards the best international waste management practice. The figure below indicates that waste prevention is the most preferred option, with waste disposal being the least preferred option.

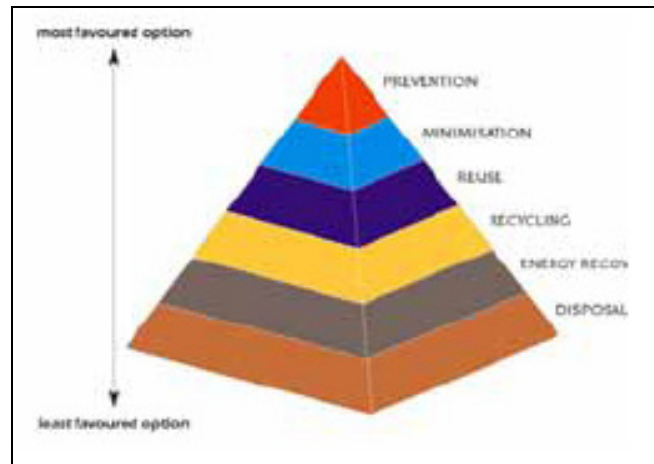


Figure 5.18 Waste Pyramid.

The baseline for the site itself is minimal as there is little residential or commercial development on the site. The lands are currently occupied by a small number of dispersed residential dwellings houses and halting site bays for members of the travelling community. Waste collection from these sites is not of a significant levels, although sections of the lands were subject to large scale clean-up operations with regard to illegal fly-tipping in recent years. Fly-tipping continues to be an ongoing problem along Lynches Lane (see image below).





## 5.15 Information & Communications Technology.

The lands do not currently generate any demand for information and communication provisions. Policy EC2 of the Development Plan 2004 states:-

*It is the policy of the Council to seek to have appropriate modern information technology, including a carrier neutral, multi-duct infrastructure servicing every unit, incorporated into the overall design and layout of all new developments in South Dublin, where feasible.*

## 5.16 Cultural Heritage.

The site is not particularly rich in architectural heritage in terms of numbers of protected structures, however the Grand Canal (Constructed 1755-1803) though not a protected structure, is of cultural and architectural importance and is protected (proposed Natural Heritage Area), due to its ecological importance. All of the protected structures on the site relate to the Grand Canal.

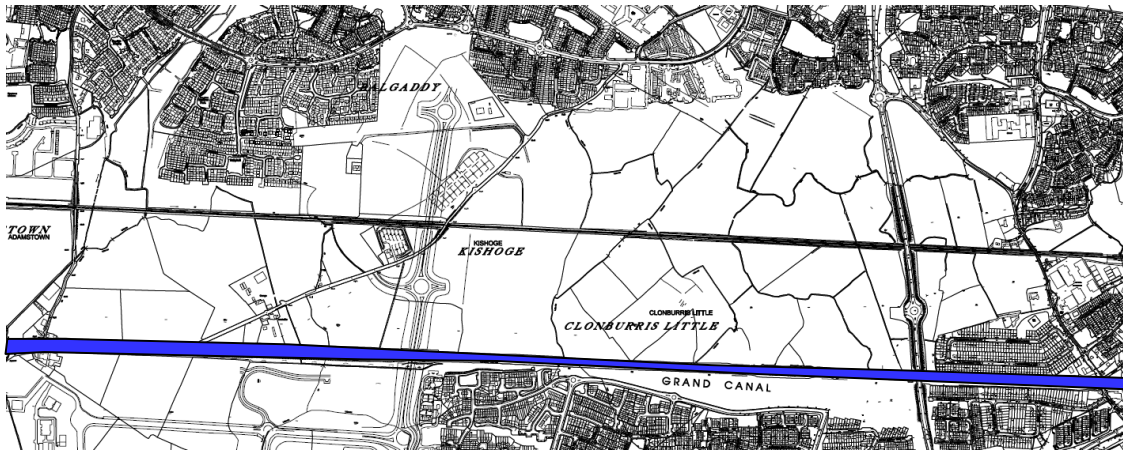


Figure 5.19 Location of the Grand Canal indicated in blue.

With regard to the canal, An Act of Parliament passed in 1715 proposed a link between Dublin and the Rivers Shannon and Barrow. Construction did not begin until 1755, and by 1773, 12 miles, beginning at the approximate location of the 11<sup>th</sup> Lock at Clondalkin, had been completed. The canal was opened to cargo boat traffic on February 2, 1779; the first passenger service beginning in 1780 between Dublin and Sallins. In 1796 the Grand Canal Docks were opened. The canal is now operated as a leisure amenity and is owned and administered by Waterways Ireland.

The section of the canal within the SDZ/LAP has 2 no. lock gates, a lock gate cottage and a unique form of overflow system which takes water from the west of the 11<sup>th</sup> lock, runs parallel to the north of the canal and re-enters the main waterbody to the east of the 9<sup>th</sup> lock.

Those buildings and structure identified under the list of protected structures as contained within part 4, schedule 2 of the South Dublin County Development Plan 2004 are as follows:-

1. The 10<sup>th</sup> Lock, Grand Canal.
2. The 11<sup>th</sup> Lock, Grand Canal.
3. Omer's Lock House, Grand Canal.

- 1). 10<sup>th</sup> Lock. Cappagh, Clondalkin. Record of Protected Structures no. 123.



The Survey of Architectural Heritage of South Dublin County, rated the 10th lock as being of regional technical interest, adding that the lock adds a welcome historical dimension to a rapidly developing vicinity and is a valuable element of the overall canal group.

- 2). 11<sup>th</sup> Lock, Cappagh, Clondalkin. Record of Protected Structures no. 128.





The Survey of Architectural Heritage of South Dublin County, rated the 11th lock as being of regional technical interest, while noting that the lock is located in a tranquil location adjacent to the nearby lock-keepers house and is a valuable element of the overall canal group.

3.). Omer's Lock House, Adjacent to 11<sup>th</sup> Lock, Cappagh, Clondalkin. Record of Protected Structures no. 122.



The Survey of Architectural Heritage of South Dublin County, rated the Omer's Lock House as being of regional architectural interest, handsome, symmetrical nature. Though acknowledged to be in poor condition, it retains its original proportions and some materials. Its presence enhances the area both visually and historically.

The Record of Monuments and Places (Part 4, Schedule 1 of the South Dublin County Development Plan 2004) indicates 2 no. recorded monument references on the site. The sites are accorded a 'D' grade in the classification of Archaeological Sites for the purposes of EIS submissions (see table 5.7 below).

**Table 5.7.** Classification of Archaeological Sites. Extracted from the appendices of the EIS submitted by Charnwood/CIE 1998.

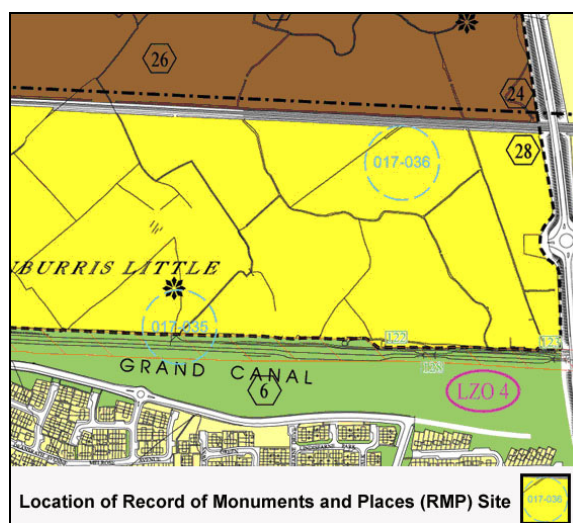
	Status	Implications
C	Extensive, well preserved sites (eg. ringforts, castles, churches, graveyards, burial mounds). Not necessarily rare in the archaeological record.	These sites should be avoided, if possible.
D	<b>Sites similar to those in category C, but not as well preserved or as well located.</b>	<b>Avoidance is recommended. Full archaeological excavation or ‘preservation by record’ would be required.</b>

The recorded sites are:-

DU017-035 Clonburriss Little, Clondalkin. Potential Site.

DU017-036 Cappagh, Clondalkin, Enclosure Site.

The location of the sites is noted on the figure below.



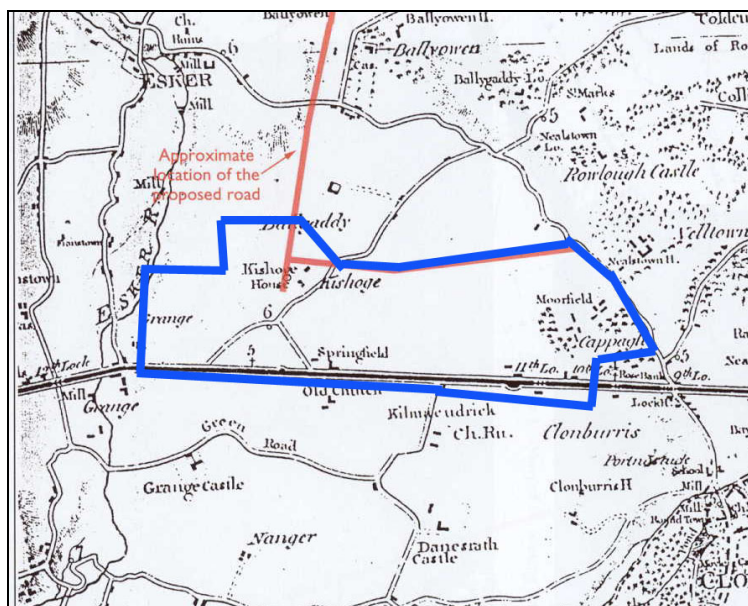
**Figure 5.20.** Location of Protected Sites.

DU017-035 is detailed within the appendix of the EIS submitted for the District Centre development by Treasury Holdings (2002) as well as Section 5.0 of the EIS submitted by Charnwood/CIE (1997). The site is noted as a crop mark identified by way of aerial photograph in a field of rough pasture bordering the Canal. The Sites and Monument Record (SMR) indicates that the site has ‘no trace of antiquity’.

DU017-036 is further detailed within the EIS for the KRP. The enclosure is identified as an elongated oval ringfort or enclosure measuring approximately 34m x 22m located 30m to the south of the railway line. The site has no visual expression and was only revealed as a cropmark by way of aerial photography. There are no further recorded monuments on the site.

*Structures identified by desk study.*

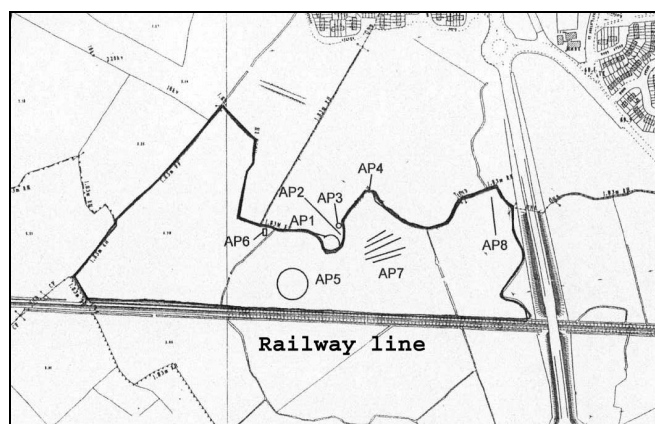
As was mentioned earlier, study of older maps and documents along with Cultural Heritage Surveys undertaken for the various EIS submissions on the lands have resulted in the identification of possible locations for previously unknown archaeological zones. In addition, the section of the Grand Canal through the site appears to have once provided one if not two basin areas, which would accord with the chronology of the construction of the Canal from Clondalkin to the west, prior to completion from Clondalkin into Dublin City. These areas can be clearly identified as defined canal basins and harbour areas and area identified on maps such as Taylor's Map of Dublin from 1816 (See fig 5.21 below)



**Figure 5.21. Taylors Map 1816 with SDZ/LAP outline in blue.**

The archaeological survey undertaken by the Irish Archeological Consultancy Ltd. for the proposed development of the District Centre (Treasury Holdings) indicated the discovery of a number of irregular shapes, mounds, walls and ridges in the landscape, indicating additional as yet undiscovered archaeological remains. These include AP1 to AP8, all of which are indicated on figure 5.22 below:

- AP1: Possible enclosure and earthworks.
- AP2: NW/SE running linear cropmark.
- AP3: Small circular cropmark, possibly a enclosure, barrow or hut.
- AP4: Possible enclosure.
- AP5: Circular area of lighter growth. Likely to be a natural feature.
- AP6: Possible foundation of a stone wall.
- AP7: Possible cultivation ridge.
- AP8: Low linear bank. Possible field boundary.



**Figure 5.22. Possible archaeological sites around District Centre area.**  
**Source: Appendix to Cultural Heritage section of District Centre EIS.**

No further sites of archaeological interest were noted in the other EIS documents, aside from those already noted on the SMR.

#### **Observations.**

- Significance of Omar’s Lockhouse.
- Maintain and promote the Grand Canal and associated structures.
- Investigation of potential archaeological monuments on the site.

### **5.17 Landscape & Townscape.**

Schedule 7 of the South Dublin County Development Plan 2004-2010 contains a landscape character assessment. Areas 2 and 3, relating to the Lucan and Clondalkin cover the site and include descriptions of the landscape as follows:-

*Area 2:* Although close to the rural fringe, the landscape retains a very rural character and due to its flat topography, clear views of the open countryside can be obtained. The dominant landscape character type within the area bounded by the R403, the Grand Canal and the urban fringe is flat urban fringe farmland and flat farmland. It consists of interspersed areas of grassland, pasture and arable fields, with much of the original field pattern still intact and sparse hedgerow surrounds. Landscape features within these boundaries include the Grand Canal to the south which has dense strips of broadleaf trees along its banks.

*Area 3:* The landscape is made up of a patchwork of pasture and arable fields, with grassland being the dominant landcover. The field system is separated by clumps of mixed woodland and sparse hedgerow networks. The field pattern is broken by roads, and development. The Grand Canal is also a key landscape feature with a strip of broadleaf planting on either bank. The predominant landscape character type is flat urban fringe farmland.

The lands are to an extent constrained by the Outer Ring Road (ORR), the Fonthill Road (FR), the Fonthill Link Road and to a lesser extent, the Grand Canal. These linear constructions are visually elevated along some or all of the sections of the site which they



pass through, creating visual barriers to the surrounding landscape. Although the site is predominantly flat, the views of the surrounding countryside which are noted above are not obvious when standing in the eastern or central section of the site. The strong hedge and treeline to the north of the Grand Canal, coupled with the elevated nature of that structure in relation to the lands to the north, acts as a visual barrier to the 2-3 storey development of the Deansrath-Kilmahuddrick estate to the south.

There are views to the nearby Dublin/Wicklow mountains from most areas of the site. This can be seen in the images below. The flat topography of the site along with maturing tree growth on the site and in the surrounding areas is screening such views, and unobscured views to the mountains are now only visible from elevated positions such as the Fonthill Road. The maturing trees in the Kilmahuddrick estate are beginning to obscure views from the canal to the Round Tower in Clondalkin Town Centre. In addition, the Grand Canal maintains an element of a separated landscape due to the presence of strong tree lines to the north and south banks, which visually detached the canal from the undeveloped landscape to the north and the urban development to the south. The recent removal of the tree and hedgerow planting between the Canal and the Deansrath-Kilmahuddrick estate to the south has impacted negatively upon the visual completeness of the Grand Canal landscape.



The strong hedgerows to the eastern section of the site and the mature trees on the eastern side of the 9<sup>th</sup> Lock Road screen the nearby urban development at Neilstown from the viewer. The FR and ORR are obscured from the viewer in the central portion of the site, which emphasises the rural feel of the lands. Sections of vandalised hedges, fly-tipping and burnt out cars undermine this image.

#### **Observations.**

- The landscape features of the Grand Canal are to be maintained and improved.
- The site has many strong hedgerow and field patterns.
- The views out of the site are limited, except to the south to the Dublin Mountains.

## 6. Specific Development Objectives.

### 6.1 Introduction to the Specific Development Objectives.

Each development option must be assessed against the various EU, National, Regional and Local policies currently in place in addition to the differing ecological, material and sociological issues which are particular to the site and the surrounding area. This exercise is also informed by:-

- The scoping exercise carried out at the beginning of the study;
- The various responses from the Government Bodies;
- Issues raised in public consultation;
- Assessments detailed in chapters 4 and 5;
- The environmental protection objectives derived from the assessment of the relevant policies and plans also inform the exercise.

Regard was had to tables 4b & 4c of the 'SEA Guidelines for Planning Authorities'.

The policies, baseline issues, and environmental protection objectives form a framework from which relevant specific development objectives for the proposed plan can be derived. The specific development objectives are listed below. The listed specific development objectives will be cross checked against the environmental protection objectives for compliance later in this chapter. The 4 no. scenarios for the development of the site will be assessed against the environmental protection objectives in chapter 7 in order to ascertain the most suitable development option for the site.

The relevant legislation, environmental protection objectives, and the specific development objectives are contained within the table below.

Environmental Issue.	Legislation & Policies.	Environmental Protection Objectives	Specific Development Objectives.
<b>Bio-diversity, Flora &amp; Fauna.</b>	<p><i>Legislation.</i> Habitats Directive. Birds Directive. Water Framework Directive. The Wildlife Act 2000 European Communities (Water Policy) Regulations 2003.</p> <p><i>Policies.</i> Protect and Preserve Proposed Natural Heritage Areas. Protect and enhance</p>	<p>(A) Objective 1. (O1: Biodiversity) To maintain the biodiversity of the site through protection of existing habitats where possible.</p>	<p>1. To protect the flora and fauna designated under the Habitats Directive. 2. To protect the proposed Natural Heritage Area (pNHA) 3. To preserve the trees and hedgerows identified for protection in the County Development Plan. 4. That sites for</p>



	the Grand Canal. Conserve existing flora and fauna.		green space should combine open space amenity and habitat value in a linked green network.
<b>Population.</b>	<i>Policies.</i> Consolidate development within the metropolitan area; Increase densities; Facilitate the provision of enhanced public transport; Consolidate Lucan-Clondalkin. New railway stations at Kishoge and Fonthill. Town Centre zoning uses to apply to Balgaddy District Centre. Balgaddy and Clonburris to be included in an overall Local Area Plan. Provide sustainable rail-based development at Balgaddy-Clonburris.	<b>(B)</b> Objective 2. (O2: Population) To provide the basis for a new community to meet housing need in the Dublin region in a sustainable manner.	5. To provide a varied mix of housing types, tenures and sizes and to facilitate the life cycle of a sustainable community. 6. To provide a variety of employment uses in proximity to proposed and existing communities. 7. To provide quality of life and a healthy environment based on provision of consolidated recreational, residential, community and working environments based on sustainable transport patterns, to meet day to day needs.
<b>Human Health. Air &amp; Noise.</b>	<i>Air Legislation.</i> The Air Quality Framework Directive; 96/62/EC); Air Quality Standards Regulations 2002; Ozone Regulations 2004; <i>Air Policies.</i> Avoid, prevent and	<b>(C)</b> Objective 3. (O3: Human Health, Air & Noise) Not to increase the impact of Air, Soil, Noise & Water pollution on the existing environment.	8. To minimise noise, vibration, and emissions from traffic and land uses on site.

	<p>reduce harmful effects on human health and the environment; Maintain ambient air quality. <i>Noise Legislation.</i> The Protection of the Environment (POE) Act 2003 <i>Noise Policies.</i> Reduce noise pollution utilising ‘best available technology’ (BAT).</p>		
<b>Soil &amp; Water.</b>	<p><i>Soil Policies.</i> Objectives regarding soil concentrate on the preservation of habitats and biodiversity as these are visible tangible indicators of the health of the soil. <i>Water Policies.</i> Coordinate settlement pattern with strategic plans for water resource management; Implement the Greater Dublin Strategic Water Supply Study and the Greater Dublin Strategic Drainage Study.</p>	<p><b>(C)</b> Objective 3. (O3: Human Health, Air &amp; Noise) Not to increase the impact of Air, Soil, Noise &amp; Water pollution on the existing environment</p>	<p>9. To minimise the consumption of non-renewable sand, gravel, and rock deposits. 10. To ensure current run-off levels are not exceeded following development of the lands. 11. To maintain or improve the existing water quality of the waterbodies on the site.</p>
<b>Transportation &amp; Traffic.</b>	<p><i>Policies.</i> Improve accessibility and reduce congestion; Reduce growth in the demand for transport, especially private transport; Promote cycling and walking; Provide for the sustainable development of the</p>	<p><b>(D)</b> Objective 4. (O4: Transportation &amp; Traffic) To maximise usage of public transport and minimise adverse impact on the existing road network.</p>	<p>16. To prioritise pedestrian and bicycle transport and access to public transport nodes. 17. To provide linkages to the surrounding communities. 18. To facilitate an appropriate density of mixed uses in</p>

	lands focussed primarily on rail-based public transport.		proximity to public transport interchanges. 19. Reduce growth in the demand for private transport. 20. To minimise the impact of development on the surrounding roads network.
<b>Waste Water &amp; Water Supply.</b>	<i>Policies.</i> To coordinate settlement pattern with waste management and disposal; Construction of water supply facilities to permit development.	<b>(E)</b> Objective 5. (O5: Water Supply, Waste Water, Gas Supply, Electricity Supply, and Information Technology Networks). To ensure appropriate provision of network infrastructure is made to ensure development in this area.	21. To ensure provision of the most effective and cost effective network for the waste water and water services. 22. To maximise the re-usage, recycling, and conservation of water within Clonburris, where possible.
<b>Energy.</b>	<i>Policies.</i> Provide co-ordinated spatial organisation for services infrastructure (including water, wastewater, electricity, gas and telecommunications) in designated corridors that supports and facilitates the orderly integrated development of the region in a sustainable manner.’	<b>(E)</b> Objective 5. (O5: Water Supply, Waste Water, Gas Supply, Electricity Supply, and Information Technology Networks) To ensure appropriate provision of network infrastructure is made to ensure development in this area.	23. To facilitate the development of renewable energy networks to provide energy sources in Clonburris. 24. To encourage high energy efficient buildings. 25. To integrate the development of micro-renewables on built structures.

<p><b>Solid Waste Collection and Disposal.</b></p>	<p><i>Policies.</i> Maximise recycling and bring “final disposal to an absolute minimum”; Waste to be treated as close as possible to where it is generated.</p>	<p><b>(F)</b> Objective 6. (O6: Solid Waste) To reduce waste production and maximise recycling.</p>	<p>26. To facilitate reductions in waste generated through:-</p> <ul style="list-style-type: none"> <li>• implementing ‘the Proximity Principle’.</li> <li>• maximising opportunities for recycling.</li> <li>• to re-use, recycle and segregate construction waste.</li> </ul>
<p><b>Information and Communications Technology.</b></p>	<p><i>Policies.</i> To provide co-ordinated spatial organisation for services infrastructure; Seek the placing underground of all electricity, telephone and TV cables.</p>	<p><b>(E)</b> Objective 5. (O5: Water Supply, Waste Water, Gas Supply, Electricity Supply, and Information Technology Networks). To ensure appropriate provision of network infrastructure is made to ensure development in this area.</p>	<p>27. To ensure the placing underground of all electricity, telephone and TV cables within the site. 28. To facilitate the development of a wireless, digitally advanced district.</p>
<p><b>Cultural Heritage.</b></p>	<p><i>Policies.</i> Protect and conserve buildings, structures and sites of special architectural, historic, archaeological, artistic, cultural scientific, social or technical interest.</p>	<p><b>(H)</b> Objective 7. (O7: Cultural Heritage). To protect and enhance items or areas of Cultural Heritage on the site.</p>	<p>29. To protect elements of Cultural Heritage on the site. 30. To protect and restore Omer’s Lock House. 31. To maintain and improve the setting and function of the Grand Canal as a destination waterway. 32. To accommodate</p>

			areas designated under the Record of Monuments and Places (RMP) within proposed open spaces.
<b>Landscape &amp; Townscape.</b>	<p><i>Policies.</i> Consider landscape in terms of the types of development that can be accommodated. Enhance the visual, recreational, environmental and amenity value of the Grand Canal, its towpaths and adjacent wetlands. Contemporary buildings of a high design standard to be actively encouraged.</p>	<p><b>(H)</b> Objective 8. (O8: Landscape and Townscape). To enhance and protect current landscape features of value on the site and create quality urban environment and public realm on site.</p>	<p>33. To protect and facilitate important views of the Dublin Mountains. 34. To promote the principles of good urban design, providing key frontage, landmark structures, integrated streets, squares and parks. 35. To improve the visual, recreational and amenity value of the Grand Canal, its towpaths and adjacent banks. 36. To secure the preservation of the protected trees in 'Moorfield' to the west of the 9<sup>th</sup> Lock Road.</p>
<b>Sustainability.</b>	<p><i>Policies.</i> Deliver sustainable communities together with a high quality built environment through good place-making, by reducing as far as possible the need to travel, particularly by private car, by facilitating mixed-use development and promoting the efficient use of land and public</p>	<p><b>(I)</b> Objective 9. (O9: Sustainability). To create a sustainable community that utilises best current practice and standards as appropriate.</p>	<p>12. To develop sustainable urban settlement patterns utilising strategic land uses in tandem with public transport provision to create a hierarchical development of interacting neighbourhoods and land uses. 13. To promote the provision of public</p>

	investment in infrastructure in order to facilitate viable local services, employment and public transport.		services, community and support facilities across the site in a phased manner. 14. To avoid adverse impacts on environmental features such as landscapes, habitats and protected species, river catchments, the cultural heritage. 15. To maximise use of SUDs.
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**6.2 Compatibility of the Proposed Clonburris Plan; Environmental Protection Objectives and Policies with the Specific Development Objectives of the SEA.**

The Specific Development objectives were tested for compatibility with the Environmental Protection Objectives derived for the Proposed Clonburris Plan. The Environmental Protection Objectives are derived from various policies, local issues and initial scoping, while the Specific Development Objectives are refined by way of an iterative process utilising issues raised during the research on the environmental baselines. The compliance of the Specific Development objectives with the earlier Environmental Protection objectives is an indication of the link between those issues of importance within the EU, National, Regional and Local policies, and those which are specific to the site.

The impact of the environmental protection objectives and the strategic objectives, if any, was recorded in matrix format, indicating positive, negative, no impact and uncertain impacts.

The likely impacts were judged using the assessment criteria in Table 5.1, i.e. whether the alternatives would have a positive or negative environmental impact. The results of the assessment are provided in a matrix format. The assessment or predictions of impact can be qualitative or quantitative and are to a large extent based on previous experience and consultation carried out internally in the Council and externally with relevant agencies.



This process was carried out to inform the SEA of required mitigation measures to be undertaken within the preferred option as a response to any noted negative impacts. This matrix is detailed in section 6.4 below.

<b>Categories of Impact</b>	
<b>Type of Impact</b>	<b>Description</b>
+ Positive Impact	Likely to have a Positive Impact on the Environment. In relation to positive impacts it has not been determined if it is significant.
- Negative Impact	Likely to have Significant Negative Impact on the environment.
0 No Impact	No impact or neutral. Impact on the environment is neither Significantly Positive nor Significantly Negative.
? Uncertain Effect	The likely impact on the environment is uncertain, due to limited or insufficient information.

### 6.3 Compatibility of Environmental & Specific Development Objectives.

		Environmental Protection Objectives.												
		A	B	C	D	E	F	G	H	I				
	<b>Bio-diversity, Flora &amp; Fauna.</b>													
1	To protect the flora and fauna designated under the Habitats Directive.	+	+	+	0	0	0	+	+	+	0	+	+	+
2	To protect the proposed Natural Heritage Area (pNHA).	+	+	+	0	0	0	+	+	+	0	+	+	+
3	To preserve the trees and hedgerows identified for protection in the County Development Plan.	+	+	+	0	0	0	+	+	+	0	+	0	0
4	That sites for green space should combine open space amenity and habitat value in a linked green network.	+	+	+	0	0	0	+	+	+	0	+	+	+
	<b>Population.</b>													
5	To provide a varied mix of housing types, tenures and sizes and to facilitate the life cycle of a sustainable community.	-	+	-	+	+	+	+	+	+	+	0	+	+
6	To provide a variety of employment uses in proximity to proposed and existing communities.	-	+	-	+	+	+	+	+	+	0	+	+	+
7	To provide quality of life and a healthy environment based on provision of consolidated recreational, residential, community and working environments based on sustainable transport patterns, to meet day to day needs.	-	+	-	+	+	+	+	+	+	+	+	+	+
	<b>Air &amp; Noise.</b>													
8	To minimise noise, vibration, and emissions from traffic and land uses on site.	0	+	+	+	0	0	+	+	+	0	+	+	+
	<b>Soil &amp; Water.</b>													
9	To minimise the consumption of non-renewable sand, gravel, and rock deposits.	0	+	+	0	0	0	+	+	+	0	0	0	+
10	To ensure current run-off levels are not exceeded following development of the lands.	+	+	+	+	0	0	+	+	+	+	+	+	+
11	To maintain or improve the existing water quality of the waterbodies on the site.	+	+	+	+	0	0	+	+	0	0	+	+	+
	<b>Sustainability.</b>													
12	To develop sustainable urban settlement patterns utilising strategic	0	+	+	+	+	+	+	+	+	+	0	+	+





## 6.4 Conclusions

The Environmental Protection objectives devised as part of the Master Plan process were tested for compatibility with the Specific Development objectives and were found to be largely compatible.

Table 6.4 indicates a number of areas where objectives will have potentially negative effects. The Specific Development Objectives which deal with population issues will have a negative effect on Environmental Protection Objective 1.

*“Objective 1. (A: Biodiversity) To maintain the biodiversity of the site through protection of existing habitats where possible.”*

The development of the site in order to accommodate the accommodation, recreational and employment needs of the community will impact on the preservation of many of the existing habitats on the site. It is considered that this will be counteracted through the preservation of all of the statutorily protected habitats. A number of additional non-statutory habitats which were noted during research for the SEA document are also noted for preservation.

The Specific Development Objectives dealing with population issues will also have a detrimental effect upon the stated aim of Environmental Protection Objective 1.

*Objective 3. (C: Human Health, Air & Noise) Not to increase the impact of Air, Soil, Noise & Water pollution on the existing environment*

It is considered, however, that any development of the site would result in conflict with this objective. This could be balanced through the sustainable drainage measures to be provided on site, in addition to the walkable nature of the proposal, resulting in significantly reduced car usage.

Also evident from the matrix is the uncertain nature of the provision of information and communications networks on the subterranean archaeological remains on the site. Insufficient information has been compiled regarding the potential locations of archaeological sites on the land, which could lead to conflict with the provision of piped infrastructure along with other construction activities. It is considered that such conflicts can be regulated through assessment of the areas of archaeological potential within the development management process.

The next section of the SEA compares the compliance of the 4 no.differing development options for the site with the Specific Development objectives. The objectives represent a best-case scenario of sustainable development for the site and the surrounding area. The assessment of the options will highlight areas of compliance along with those sections which do not conform.

## 7. Evaluation of the Alternatives.

### 7.1. Introduction.

Under the terms of Article 5 of the SEA Directive, the likely effects on the environment due to implementation of the proposed Strategic Development Zone/Local Area Plan must be reported on. The purpose is to identify, predict and evaluate the likely environmental impacts of implementing the Plan and to recommend measures to mitigate these impacts. As part of the proposed Strategic Development Zone/Local Area Plan assessment process the following Strategic Development Options were considered:

**Option 1. Development in accordance with the South Dublin County Council Development Plan 2004.**

**Option 2. Low Density development within SDZ/LAP plan framework.**

**Option 3. Medium Density development within SDZ/LAP plan framework.**

**Option 4. High Density development within SDZ/LAP plan framework.**

Each option was assessed against the Specific Development Objectives outlined in Chapter 6 to determine possible impacts. These objectives had been formulated through public consultation, baseline research and government policy direction. The formulation of such objectives is the principle way that environmental and sustainable effects of the development proposals can be identified, analysed, compared and mitigated against. The Specific Development Objectives were also checked against the sample objectives formulated in the SEA Implementation Guidelines (DOE, 2004).

The performance of each of the options against the Specific Development Objectives is depicted in a matrix format, using symbolic ratings. The assessment of each objective details a scale of impacts using symbols to highlight most or least favourable options. Additionally, each symbol is associated a numerical value to allow for comparative assessment of each development option.

Symbol	Value	Likely Impact.
✓✓✓✓	4	Very Strong Positive.
✓✓✓	3	Strong Positive.
✓✓	2	Clear Positive.
✓	1	Positive.
0	0	Neutral
X	-1	Negative.
XX	-2	Clear Negative.
XXX	-3	Strong Negative.
XXXX	-4	Very Strong Negative.

The application of the objectives to the development proposals in the matrix should will lead to conclusions regarding the effects of the objectives on the development options. These effects are discussed in the 'Comments' section of the matrix, which



offers brief explanation about the effects of the objectives, and the most responsive or appropriate development option in each case.

In this manner, a more complete picture of the most effective development option or scenario is refined and this option will be selected for more detailed assessment. In some cases more than one of the development scenarios may perform equally, and both options, or a combination of the most responsive elements of both will be selected for more detailed assessment.

## 7.2 Evaluation of Development Scenarios for lands at Clonburris.

Specific Development Objective	Indicators		Options.				Commentary
	No. 1	No. 2	No. 3	No. 4	No. 4		
<b>Bio-diversity, Flora &amp; Fauna.</b> 1. To protect the flora and fauna designated under the Habitats Directive.	To protect the White-Clawed Crayfish, Otters and any bat species through protecting the Grand Canal and associated banks/ditches.	✓✓	✓✓✓	✓✓	✓✓	Under Option 1 it is probable that protection of the Grand Canal, and specifically the canal-banks, associated hedges and ditches would be subject to less stringent protection and management procedures than under the Masterplan framework process.  Development under Options 2-4 could include specific objectives for the protection and detailed management and monitoring of the pNHA and associated banks. The amenity use of the canal banks and protected areas by the proposed population will need to be monitored as the general population increases in order to identify and mitigate areas of possible conflict between amenity needs of the population and the environmental protection of the designated habitats.	
2. To protect the proposed Natural Heritage Area (pNHA).	Retain and protect the Grand Canal, associated structures and features within the pNHA area. Protection of the pNHA will include management programmes.	✓	✓✓	✓✓✓	✓✓	Option 1, under the Development Plan and LAP would afford some protection to the Grand Canal pNHA. It may be more difficult to fully protect areas of the Cappagh Overflow not covered by pNHA protection which are in private ownership could have a detrimental effect on the environmental value of that habitat.  Increases in population on the site could result in an increase in intensity of use of the Grand Canal. As a result detailed mitigation measures need to be included within the proposed SDZ/LAP to ameliorate and manage pressure on the pNHA. The proposed SDZ/LAP planning framework could include objectives relating to the pNHA and associated habitats. Such objectives would allow for increased control of development in proximity to the pNHA. Additional control of development and management of the Grand Canal would be possible through detailed land use arrangements set out in the Masterplan.	
3. To preserve the trees and hedgerows identified for protection in the County Development Plan.	Retain identified trees and hedgerows.	✓✓	✓	✓	✓	Option 1 has provision for up to 14% open space. It is probable that the lower densities of development and less intensive uses in certain sections of the site under Option 1 would allow for more of the hedgerows with the site to be retained within areas of open space.  Options 2-4 have 14% or more of open space. In addition Options 2-4 and more significantly Options 3-4 propose increased areas of high density in the eastern section of the site, where most of the protected trees/hedges are located. Hedgerows and trees of value included in the proposed SDZ/LAP should be noted during the design process and efforts made to include such vegetation within areas of open space where possible.	

4. That sites for green space should combine open space amenity and habitat value in a linked green network.	That where possible, areas identified as having habitat values should be retained within open space. Where retention of such areas is not possible, open spaces should be part of a linear network allowing for movement of fauna.	✓	✓✓	✓✓	✓✓	It may be difficult to achieve comprehensive provision of green routes across the whole site under the development of Option 1 through lack of a detailed Masterplan and phasing process would probably not achieve It is possible that some existing hedges beside the rail line and canal may be retained under Option 1 as was stated in previous commentary.  The proposed SDZ/LAP planning framework is a detailed document which has the potential to provide a network of green spaces which could be implemented in a phased manner during development. Strategic objectives to be contained within the Masterplan framework could facilitate the creation of a network of green spaces.	
<i>Summary Score.</i>		5	9	9	7		
<b>Population.</b>							
5. To provide a varied mix of housing types, tenures and sizes and to facilitate the life cycle of a sustainable community.	That housing should be comprised of differing units types to accommodate differing household types from single young people through to families to downsizing older persons.	✓	✓✓	✓✓✓	✓✓✓	All of the proposals would potentially provide a certain amount of variation in mix and tenure. The increase in densities in Options 2-4 would potentially increase both tenure and mix.	
6. To provide a variety of employment uses in proximity to proposed and existing communities.	That employment uses should take into account the differing spaces required by differing types of employment, from small and medium starter enterprises and offices to larger office spaces. Such facilities should be easily accessible from the surrounding communities.	✓	✓✓	✓✓✓	✓✓✓	Employment generating uses could be included in all options. The balance between residential A1 zoning and District Centre DC zoning objectives contained within the Development Plan would limit the amount and size of retail, commercial and employment developments within the lands as a whole. The increased densities proposed in Options 2-4 could potentially incorporate additional employment uses. The detailed plan structure set out in the Plan includes permeable linkages to the surrounding areas, increasing access to possible employment opportunities to and from the surrounding neighbourhoods.	
7. To provide quality of life and a healthy environment based on provision of consolidated recreational, residential, community and working environments based on sustainable transport patterns, to meet day to day needs.	To develop an active, inclusive and safe social and cultural life which gives Clonburris identity. The provision of easily accessible walking, open space, leisure and educational facilities will play a underpinning role in the promotion of quality of life.	✓	✓✓✓	✓✓✓	✓✓	All of the development options would provide such amenities. It is considered that Option 1 could provided limited opportunities to create a mechanism to ensure the timely delivery of required community facilities. The proposed SDZ/LAP planning framework contains objectives which would facilitate the provision of services in a phased manner in tandem with residential development. Additionally, it is considered that Options 2-4 could provide a more varied and intensive mix of uses than under the Development Plan/LAP.  Options 2-4 also proposes to facilitate the provision of additional amenities such as local bus services which might be more difficult to provide under Option 1 due to a lack of detailed development and phasing proposals. The inclusion of objectives regarding walkable neighbourhoods within the Masterplan ensures ease of access to local facilities which Option 1 may not be able to guarantee.	
<i>Summary Score.</i>		3	7	9	8		

<p><b>Air &amp; Noise.</b></p> <p>8. To minimise noise, vibration, and emissions from traffic and land uses on site.</p>	<p>To implement management strategies, open space and land use location policies which will reduce the impact of noise, vibration and land uses.</p>	0	✓✓	✓✓✓	✓	<p>Options 2-4 through the proposed SDZ/LAP planning framework process propose to achieve a balance between development on site and reduced trips by private car. The proposed SDZ/LAP planning framework provides conditions for reducing use of the car through permeable layout and land use location policies, centred around higher densities at public transport nodes. Delivery of development under Options 2-4 could be phased in accordance with incremental increase in public transport provision. It may be more difficult to phase delivery of development under Option 1 in accordance with provision of facilities, and thus this option achieves a lower score. It is considered that the increased amounts of public transport available in Options 2-4 would reduce the amount of private traffic within the area, reducing noise and emissions. Higher design and insulation standards should also reduce impact. It is considered that expected traffic levels in Option 4 would increase noise and emissions due to the scale of development proposed.</p>
<p><i>Summary Score.</i></p>		0	3	3	1	
<p><b>Soil &amp; Water.</b></p>						
<p>9. To minimise the consumption of non-renewable sand, gravel, and rock deposits.</p>	<p>Utilise recycled construction materials where possible, along with the sustainably sourced materials.</p>	X	X	X	X	<p>All of the development proposals will utilise very significant amounts of construction materials. All of the options are considered to have the same impact.</p>
<p>10. To ensure current run-off levels are not exceeded following development of the lands.</p>	<p>That the surface water flows from the site should not be in excess of 6 litres/second per hectare at any stage of the development of the Masterplan.</p>	0	0	0	0	<p>This is an objective of all new developments within South Dublin and must be achieved. It is assumed that all development options would implement the various requirements needed to meet this objective.</p>
<p>11. To maintain or improve the existing water quality of the waterbodies on the site.</p>	<p>That the current levels of water quality within the streams, receiving watercourses and canal on site should be the baseline. Details to be developed for improvement of the water quality through management structures.</p>	✓	✓✓	✓✓	✓✓	<p>All of the options will result in agricultural levels of run-off into receiving waters. Option 1 will attenuate run-off before discharge where necessary, while the comprehensive strategic SUDS system that could be developed for Options 2-4 would provide a sustainable system to attenuate much of the discharged water from Options 2-4 in a sustainable manner.</p>
<p><i>Summary Score.</i></p>		0	1	1	1	
<p><b>Sustainability.</b></p>						
<p>12. To develop sustainable urban settlement patterns utilising strategic land uses in tandem with public transport provision to create a hierarchical development of interacting neighbourhoods and land uses.</p>	<p>That type, location and intensity of land uses are linked to public transport accessibility and walkable streets. That neighbourhoods are designed in a permeable fashion allowing for connectivity and reduction in car based transport, including connectivity and land uses</p>	✓	✓✓	✓✓✓✓	✓✓	<p>It is considered that development of the site under Option 1 would lead to a less sustainable form of development than would be provided under Options 2-4. Sustainable patterns of development allow for access to transport, walkable usable neighbourhoods and provision of infrastructure and facilities to meet day to day needs. While it is probable that increased densities and mixed uses would be provided alongside the railway stations under Option 1, the absence of a detailed masterplan governing development of the site, would make sustainable and linked development patterns more difficult to achieve.</p>

	to maximise access to services for the existing communities.					<p>It is considered that the proposed SDZ/LAP planning framework mechanism would facilitate more sustainable development patterns through the facilitation of appropriate densities in the correct locations to support public transport. In addition, the quantum of development proposed within Options 2-4 should provide for a higher intensity of use, facilitating day to day requirements of the inhabitants of Clonburris. The implementation of the urban design Masterplan under Options 2-4 should also allow for ease of movement by sustainable transport modes around and into the site.</p> <p>Studies undertaken during the design process appear to indicate that the higher densities of Option 4 would involve additional car usage in the area, thus reducing sustainability. The development of the site under Option 2 would probably provide less critical mass in terms of population, thus providing less complex public facilities and reducing effective support of public transport systems.</p>
13. To promote the provision of public services, community and support facilities across the site in a phased manner.	Ensure that the roll-out of development across the site is in association with or after the delivery of public transport or/and community facilities.	✓	✓✓✓✓	✓✓✓✓	✓✓✓✓	<p>While it is acknowledged that Option 1 could provide various services and facilities, it is considered development under the Development Plan/LAP would probably provide a less detailed framework for the effective delivery of such facilities.</p> <p>Options 2-4 offer a more robust planning framework, allowing for the provision of facilities and infrastructure in a phased and timed manner. The proposed SDZ/LAP planning framework contains detailed guidance on the requirement, location, timing and scale of such facilities. The proposed SDZ/LAP planning framework allows for effective control and release of residential and commercial development in tandem with infrastructural provision.</p>
14. To avoid adverse impacts on environmental features such as landscapes, habitats and protected species, river catchments, the cultural heritage.	To promote design of the site which will result in the least adverse impact on the mentioned items, to include management structures for the prevention of impacts upon such areas and items during construction and for the life of the development.	0	✓	✓	✓	<p>All of the options will involve some destruction of the existing landscape and habitats on the site. The proposed SDZ/LAP planning framework will provide a detailed planning framework. It is considered that this framework creates additional control over the location and form of development on site, allowing for development to be guided away from particular sites of interest.</p>
15. To maximise use of SUDS	That Sustainable Urban Drainage Systems should be utilised alongside roads and areas of hard surface within the site in order to reduce the amount of surface water pollution and the need for attenuation.	✓	✓✓	✓✓	✓✓	<p>In order to achieve agricultural run-off levels, SUDS would to be used under all of the development options, however, a network of SUDS might be more difficult to achieve under Option 1 due to the need to develop a comprehensive system or network at the outset of development. The comprehensive proposed SDZ/LAP planning framework plan of Options 2-4 allows for the identification of a SUDS network at the initial design stage, while objectives relating to the implementation of such a network allow for effective delivery.</p>
<i>Summary Score.</i>		<b>3</b>	<b>9</b>	<b>11</b>	<b>9</b>	

<b>Transportation &amp; Traffic.</b>									
16. To prioritise pedestrian and bicycle transport and access to public transport nodes.	That the development of the site should have highest levels of permeability for cyclists and pedestrians prioritising accessibility by such modes of transport above the needs of car based movements.	✓	✓✓	✓✓✓	✓✓✓	✓✓✓	✓✓	✓✓	Option 1 under the auspices of a LAP would probably aspire to the creation of linkages to the surrounding areas and though the site. However, the delivery of identifiable linkages to lands beyond the LAP boundaries may be more difficult to guarantee.  Options 2-4 under the proposed SDZ/LAP planning framework can identify the location and design of specific routes within an urban design Masterplan. The infrastructural phasing policies within the plan can specify the implementation of these specific routes and linkages in a strategic and phased manner as required by the rate of development on site.
17. To provide linkages to the surrounding communities.	That attractive, safe and permeable walking and cycling routes are provided to the surrounding communities, allowing ease of access to the site. Provision is also to be made for limited vehicular access to the site from the surrounding communities.	✓	✓✓✓	✓✓✓	✓✓✓	✓✓✓	✓✓✓	✓✓✓	The provision of linkages under Option 1 could be made more difficult by the existence of several man-made barriers. The Grand Canal area is a particular constraint to north-south movement. It is considered that the creation of linkages across the Grand Canal may be difficult to achieve under Option 1 due to the Canal being outside of the LAP area along with a lack of detailed procedures for phased provision of such linkages.  The proposed SDZ/LAP planning framework boundaries include the Grand Canal. This can allow for the delivery of linkages over the Grand Canal, and Fonthill Road and into surrounding areas.
18. To facilitate an appropriate density of mixed uses in proximity to public transport interchanges.	That sustainable land use is linked to the proximity of public transport and providing for reductions in transport need. That mixed use areas in proximity to public transport implement international best practice in terms of design and utilisation of vertical land use in addition to horizontal land use.	✓	✓	✓✓	✓✓	✓✓	✓✓	✓✓	It is considered that development of the site under Option 1 would lead to a less sustainable form of development than would be provided under Options 2-4. Sustainable patterns of development allow for access to transport, and walkable usable neighbourhoods. The site will be served by rail and metro services benefiting all 4 no. development options. Option 1 is proposed for development under a largely mono-use zoning, making the development of areas of mixed use more difficult. However, Options 2-4 propose to link the public transport nodes with high frequency local bus services along routes of mixed land uses. The development of the site under Options 2-4 provides an opportunity to integrate public transport, land uses and high density.  It is considered that the proposed SDZ/LAP planning framework would facilitate more sustainable development patterns through the facilitation of appropriate densities in locations suitable for supporting public transport. In addition, the quantum of development proposed within Options 2-4 should provide for a higher intensity of use, facilitating day to day requirements of the inhabitants of Clonburris. The implementation of the urban design Masterplan under Options 2-4 should also allow for ease of movement by sustainable transport modes into and around the site.  It is considered that Option 3 will create the most equitable balance between providing the optimum population for the support of public transport services without impacting on the receiving environment.



<p>19. Reduce growth in the demand for private transport.</p>	<p>Design permeable neighbourhoods and high density mixed uses to provide the community, retail, commercial and employment facilities required by the community within the site. Discourage car ownership and use within the site through design and parking management procedures. Detailed transport management plans are to be drawn up for each relevant planning application on the site.</p>	<p>✓</p>	<p>✓✓</p>	<p>✓✓✓</p>	<p>✓</p>	<p>It is likely that Option 1, under a LAP framework would potentially include an objective to create permeable neighbourhoods and a high density mixed use District Centre, however it may be more difficult to deliver effective design and policy measures to curb car usage effectively.</p> <p>Options 2-4 have located high densities of development in proximity to public transport nodes. Higher intensities of use are to be located in such areas creating reduced demand for travel within the site and also allowing for ease of access to public transport from the higher density areas. Critical mass of population is proposed in proximity to the public transport nodes in order to provide effective support of the public transport network. Objectives are included within the framework plan regarding the location of all residential units within Clonburris within walking distance of public transport. The proposed SDZ/LAP planning framework also contains timed and phased requirements for the provision of public transport within the site in tandem with the roll out of development.</p> <p>Studies undertaken during the design process appear to indicate that the higher densities of Option 4 would involve additional car usage in the area, thus reducing sustainability. The development of the site under Option 2 would probably provide less critical mass in terms of population, which would not provide the most sustainable use of the available public transport on the site.</p>
<p>20. To minimise the impact of development on the surrounding roads network.</p>	<p>Reduce car usage through location of land uses in conjunction with transport facilities; provision of walking a cycling facilities; provision of majority of day to day needs for residents within the site area.</p>	<p>XX</p>	<p>✓✓✓</p>	<p>✓✓✓</p>	<p>✓</p>	<p>In order to reduce the impact of the development on the surrounding roads network, it is necessary to create a balanced level of development through the facilitation of high densities of population in proximity to public transport nodes. High population levels in conjunction with provision of amenities to satisfy day to day needs act to reduce the need to make trips by private car. Further need to reduce trips by private car is to provide high quality, high frequency public transport, thereby facilitating journeys out of and into the site. It is considered that the highly connected nature of the site will facilitate a high level of public transport usage. Provision of facilities within the site in areas of mixed uses, to be located along QBCs should also reduce the need for trips by private car.</p> <p>It is considered that the development of the lands under Option 1 would have less possibility of effectively balancing the needs of the proposed population within the site, nor would it fully facilitate potential for public transport trips due to the lesser levels of control provided by the Development Plan/LAP. The lack of a detailed Masterplan to facilitate mixed use, high density development to support public transport would result in the generation of trips by private car outside of the site in order to satisfy everyday needs and to facilitate journeys to work. In this manner, it is considered that significant impact on the surrounding roads network would result.</p> <p>Development under Options 2-4 would provide a detailed SDZ/LAP planning</p>

						<p>framework which implements high density, mixed use development supporting public transport in a phased manner. Options 2-4 locate high density development in proximity to public transport nodes, while proposing phased increases in population as public transport servicing the site become available. The population on site is maintained at a level which supports and is adequately served by the available public transport.</p> <p>It is considered that development under Option 3 provides the most suitable balance through the provision of a optimum population level for the support of and servicing by the proposed public transport facilities. The quantum of development proposed in Option 3 should not result in significant impact on the existing roads network.</p>
<i>Summary Score.</i>		2	14	17	11	
<p><b>Waste Water &amp; Water Supply.</b></p> <p>21. To ensure provision of the most effective and cost effective network for the waste water and water services.</p>	<p>Effective use of the services will also involve the development of high densities of mixed uses in order to spread loading over differing sections of the day. Detailed management of the services infrastructure is to be proposed in order to effectively utilise capacity in the services. Implementation of the recommendations of the Dublin Strategic Drainage Study regarding the servicing of the lands should be implemented.</p>	0	✓✓	✓✓✓	✓✓✓✓	<p>Development under Option 1 would reduce the effectiveness of existing and proposed waste water &amp; water services. It is considered that the lower densities allowable in such a site would not allow for the most effective return on public services provision.</p> <p>Options 2-4 would make a better return on such services due to increased densities. It is considered that the most effective use of the services on site involve higher densities. The services on site are capable of accepting the upper levels of development proposed by Option 4, making this option the best return on the services investment in the lands.</p>
<p>22. To maximise the conservation, re-usage, recycling, and of water within Clonburris, where possible.</p>	<p>To encourage minimal use of the water resource. That grey water systems be installed in commercial and retail facilities and provided for in residential units. That water saving measures be implemented through out the construction and lifetime of the development. Details of implementation and enforcement of international best practice procedures are to be provided.</p>	✓	✓✓	✓✓✓	✓✓✓✓	<p>All Options would have to comply with the water conservations measures included in the South Dublin Bye-Laws, as do all new developments.</p> <p>Development under Option 1 may not have sufficient levels of control to implement sustainable systems such as grey water recycling.</p> <p>Options 2-4 under the proposed SDZ/LAP planning framework contain specific objectives regarding the conservation, recycling and re-usage of water. The additional control over the development and design process involved in the development of the lands under the proposed SDZ/LAP planning framework would allow for effective implementation of relevant objectives.</p>
<i>Summary Score.</i>		1	4	6	8	

<p><b>Energy.</b></p> <p>23. To facilitate the development of renewable energy networks to provide energy sources in Clonburris.</p>	<p>That the critical mass of development in the area should be exploited in order to create district level energy supplies including proposals to future proof the site for energy needs.</p>	<p>0</p>	<p>✓✓</p>	<p>✓✓</p>	<p>✓✓✓</p>	<p>It is considered unlikely that the development of renewable energy networks would be implemented under Option 1 as such provision is not specifically required within the Development Plan and a strategic design and delivery mechanism is difficult to achieve.</p> <p>It is considered that the proposed SDZ/LAP planning framework could allow for more effective implementation of renewable energy networks, through the inclusion of specific objectives requiring provision of such services. The implementation of such objectives is more effective under the proposed SDZ/LAP planning framework due to additional control of the development of the site afforded by the Planning Scheme.</p> <p>The increased density and areas of intensively mixed uses in Options 2-4 could provide conditions for the provision of Combined Heat &amp; Power (CHP). Option 4 would provide the optimum possible development option for the implementation of district-wide CHP.</p>
<p>24. To reduce demand on non-renewable fossil fuels and future electricity generation through encouraging high energy efficient buildings.</p>	<p>That development will be in accordance with current best practice regarding the provision of buildings which are designed, insulated and constructed in a manner which reduced the need for heating and cooling to minimal levels. Targets are to be set out indicating energy needs for the site as a whole, and proposals as to how such targets are to be met.</p>	<p>0</p>	<p>✓</p>	<p>✓✓</p>	<p>✓✓</p>	<p>All of the development options would have to comply with statutory EU and National regulations on energy efficiency. It is possible that Option 1 would potentially only achieve the minimum level of energy efficiency required under current legislation.</p> <p>The SDZ/LAP planning framework would allow for the development and implementation of comprehensive targets in excess of those required under the Energy Performance in Buildings Directive. The Planning Scheme can detail specific targets relating to use of sustainable construction material in buildings, solar design and orientation, primary energy reduction, thermal performance and design for re-use of buildings.</p>
<p>25. To reduce demand on non-renewable fossil fuels and future electricity generation through integrating the development of micro-renewables on built structures.</p>	<p>That built form should incorporate energy generating features without reduction in residential amenity for existing and proposed communities.</p>	<p>✓</p>	<p>✓</p>	<p>✓</p>	<p>✓</p>	<p>Option 1 will have to comply with statutory EU and National regulations on energy efficiency. It is possible that some of the developments on the site will include some micro-renewables within the built form, however such development is not mandated in the Development Plan.</p> <p>It is considered that Options 2-4 under the proposed SDZ/LAP planning framework could provide a strategic approach to the provision of micro-renewables within Clonburris. The Planning Scheme could contain specific objectives requiring particular developments to accommodate or be powered by a certain percentage of renewable energy. The strategic nature of the Planning Scheme document allows for effective implementation of such objectives due to increased control over the design and development processes.</p>
<p><i>Summary Score.</i></p>		<p><b>1</b></p>	<p><b>7</b></p>	<p><b>8</b></p>	<p><b>9</b></p>	

<p><b>Solid Waste Collection and Disposal.</b></p> <p>26. To facilitate reductions in waste generated through:-</p> <ul style="list-style-type: none"> <li>• implementing 'the Proximity Principle',</li> <li>• maximising opportunities for recycling,</li> <li>• to re-use, recycle and segregate construction waste.</li> </ul>	<p>That ease of access to recycling facilities is comparable with access to other waste disposal facilities. That a strategy is to be developed incorporating targets for the reduction of waste and increased amounts of recycling. Detailed waste management strategies are to be developed stating targets for construction waste.</p>	✓	✓✓	✓✓	✓✓	✓✓	✓✓	<p>Option 1 would achieve the requirements of the South Dublin County Development Plan as informed by the Dublin Waste Management Strategy.</p> <p>The strategic nature of the proposed SDZ/LAP planning framework would allow for the development of higher targets regarding the recycling of municipal waste. The proposed SDZ/LAP document may contain objectives relating to waste collection and separation, provision of comprehensive recycling facilities and management and monitoring measures to increase and refine the waste management system in Clonburris. The proposed SDZ/LAP planning framework also proposes to contain specific objectives relating to the design and development of dwellings with specifically reusable and recyclable materials.</p>
<p><i>Summary Score.</i></p>		1	3	3	3	3	3	
<p><b>Information and Communications Technology.</b></p>		0	✓	✓✓	✓✓	✓✓✓	✓✓✓	<p>Option 1-4 would have to comply with the requirements of the Development Plan which requires that various wires to service an area be undergrounded.</p>
<p>27. To ensure the placing underground of all electricity, telephone and TV cables within the site.</p>	<p>That such cables and structures will not be visually obstructive, and to ensure that such cabling utilises shared piping to facilitate development with minimum of disturbance to the public and private realm.</p>	0	✓	✓✓✓	✓✓✓	✓✓✓	✓✓✓	<p>Option 1 would have to comply with the requirements of the Development Plan. In this respect the critical mass achieved by Option 2 and especially Options 3-4 could allow for the installation of more advanced telecommunications equipment, and for the provision of connection to each building in the proposed SDZ/LAP planning framework, creating a more advanced digital district.</p>
<p><b>Cultural Heritage.</b></p>		✓	✓	✓	✓	✓	✓	<p>It is considered that development under Options 1-4 would identify protected structures and suitable areas of archaeological interest for protection.</p> <p>The proposed SDZ/LAP planning framework can identify areas and structures for protection in a more progressive and proactive manner. The Planning Scheme includes specific objectives relating to mechanisms for the restoration, monitoring, excavation or retention of buildings, structures and areas with potential. Objectives regarding management of the canal and Omer's Lock House could be included within the SDZ/LAP planning framework.</p>
<p>29. To protect elements of Cultural Heritage on the site.</p>	<p>That development will not unduly impinge on the protected and unprotected items of cultural heritage on the site. Such elements of heritage will be identified and incorporated into areas of open space where possible.</p>	✓	✓	✓	✓	✓	✓	

30. To protect and restore Omer's Lock House.	That the Lock House represents an example of the industrial heritage of the area and as such should be incorporated into any development in a fashion which allows for comprehensive use of the building.	✓	✓✓	✓✓	✓✓	✓✓	✓✓	Development of the lands under Option 1 may require the restoration of the Lock House, however the implementation of such an objective may be difficult to achieve. The restoration of Omer's Lock house is proposed under the Planning Scheme and is included as a requirement under the phasing of delivery of facilities and amenities within the Planning Scheme.
31. To maintain and improve the setting and function of the Grand Canal as a destination waterway.	That the development of the site in the vicinity of the canal will not unduly impinge on the canal and associated features. A management structure detailing issues at stake and responses to such will need to be put into place. The canal, and the relationship between the canal and the higher density areas adjacent to the 10 <sup>th</sup> and 11 <sup>th</sup> Locks will also require sensitive design treatment in order to improve the setting of the canal.	0	✓✓	✓✓	✓✓	✓✓	✓✓	Development under Option 1, provides some protection to the Grand Canal, however it is not included within the LAP area and as such its future management and maintenance would not be guaranteed despite increased amenity demands.  The Grand Canal is included within the area of the proposed SDZ/LAP planning framework, which allows for the implementation of specific objectives regarding the canal. The proposed SDZ/LAP planning framework proposes the positive integration of the canal structure into the Masterplan design, while also maintaining the semi-rural integrity of the canalscape. The urban design of the Masterplan has created buffer zones and urban parks adjacent to the canal and banks, while a destination place in the form of a new canal basin is proposed to the north of the waterway. In addition, the proposed SDZ/LAP planning framework contains objectives relating to the management, assessment and monitoring of the canal, usage type and demand, along with ameliorative measures.
32. To accommodate areas designated under the Record of Monuments and Places (RMP) within proposed open spaces.	That areas noted in the RMP will be incorporated into areas of public/private open space in order to ensure the preservation of such areas in situ. Such preservation may require excavation and management proposals.	✓	X	X	X	X	X	Option 1 will provide up to 14% public open space. It is probable that the required space could encompass the 2 no. areas on the Record of Monuments and Places (RMP). It should be noted that the RMP notes the sites as 'Potential' sites meaning that they have not been subject to more than cursory inspection.  The 2 no. potential sites are located between the railway line and the Grand Canal. One of the sites is to the west of the Fonthill Road in proximity to the high density area around Fonthill Station. The second site is slightly to the north of the Grand Canal. The provision of high density, high intensity development around the railway station at Fonthill will facilitate more sustainable forms of development, encouraging use of public transport while facilitating the provision of many of the day to day needs of the inhabitants of Clonburris within the site. It is considered that there is a balance to be achieved between the possible loss of a potential site adjacent to the Fonthill Road and the suitability of the lands in proximity to Fonthill Station for high density sustainable development.
<i>Summary Score.</i>		6	6	4	4	4	4	
<b>Landscape &amp; Townscape.</b>		3						
33. To facilitate views of the Dublin Mountains.	That views or glimpses of the Dublin Mountains may be experienced from various vantage points within the overall site, and	0	0	0	0	0	0	It is considered that as they involve development of hitherto undeveloped lands, all of the development options proposed will impact upon views to the Dublin Mountains from the site and lands to the north. Options 1-2 will have the least effect on views due to potentially lower building scales resulting from lower

	that the urban design and form of development will take into account the presence of such views.								densities while Option 4, with higher densities and massing will have a more restrictive effect. Development under the Masterplan will involve a number of significant streets on a north-south axis, in addition to a number of vantage points provided by proposed bridges across the railway and canal. These vantage points and north-south streets will allow for views to the mountains.
34. To promote the principles of good urban design, providing key frontage, landmark structures, integrated streets, squares and parks	Create continuity of street frontages, the enclosure of space by development which clearly defines private and public areas, the creation of recognisable routes and intersections using high quality materials to promote character.	✓	✓✓✓✓	✓✓✓✓	✓✓✓✓	✓✓✓✓	✓✓✓✓	✓✓✓✓	The development of the lands under Option 1 could allow for the development of the lands under a LAP. It is possible that the LAP would include objectives regarding potential layout of streets and open spaces, along with locations for areas of mixed use. It is considered that a detailed masterplan as proposed within the proposed SDZ/LAP planning framework could provide detailed guidance for the desired design outcome.  A detailed Masterplan is proposed under the proposed SDZ/LAP planning framework. The Masterplan, which includes the layout of permeable streets and squares, contains guidance of the exact location of certain streets and design codes, along with a timetable for the construction of infrastructure required to facilitate the phased development of the Masterplan layout. The Masterplan, and the phased delivery schedule contained within the proposed SDZ/LAP planning framework would ensure construction of a scheme of high quality urban design.
35. To improve the visual, recreational and amenity value of the Grand Canal, its towpaths and adjacent banks.	Utilise the canal for the provision of amenity for the proposed and existing communities, while retaining the semi-rural 'soft' edge to the canal and towpaths. Restoration of the southern hedgerows in order to improve the canalscape and to retain unique identity of the canal in relation to the site.	0	✓✓✓	✓✓✓	✓✓✓	✓✓	✓✓	✓✓	Development under Option 1, provides some protection to the Grand Canal, however it is not included within the LAP area and as such its future management and maintenance would not be guaranteed despite increased amenity demands.  The Grand Canal is included within the area of the proposed SDZ/LAP planning framework, which allows for the implementation of specific objectives regarding the canal. The proposed SDZ/LAP planning framework proposes the positive integration of the canal structure into the Masterplan design, while also maintaining the semi-rural integrity of the canalscape. The urban design of the Masterplan has created buffer zones and urban parks adjacent to the canal and banks, while a destination place in the form of a new canal basin is proposed to the north of the waterway. In addition, the proposed SDZ/LAP planning framework contains objectives relating to the management, assessment and monitoring of the canal, usage type and demand, along with ameliorative measures.
<i>Summary Score.</i>		<b>1</b>	<b>7</b>	<b>7</b>	<b>7</b>	<b>6</b>	<b>6</b>	<b>77</b>	
<b>Total score for each option.</b>		<b>20</b>	<b>74</b>	<b>87</b>	<b>87</b>	<b>77</b>	<b>77</b>		



Summary Table	Options.			
	No. 1	No. 2	No. 3	No. 4
<b>Specific Development Objectives</b>				
<b>Bio-diversity, Flora &amp; Fauna.</b>				
1. To protect the flora and fauna designated under the Habitats Directive.	✓	✓✓✓	✓✓✓	✓✓
2. To protect the proposed Natural Heritage Area (pNHA).	✓	✓✓✓	✓✓✓	✓✓
3. To preserve the trees and hedgerows identified for protection in the County Development Plan.	✓✓	✓	✓	✓
4. That sites for green space should combine open space amenity and habitat value in a linked green network.	✓	✓✓	✓✓	✓✓
<i>Comparative Score.</i>	<b>5</b>	<b>9</b>	<b>9</b>	<b>7</b>
<b>Population.</b>				
5. To provide a varied mix of housing types and tenures and sizes and to facilitate the life cycle of a sustainable community.	✓	✓✓	✓✓✓	✓✓✓
6. To provide a variety of employment uses in proximity to proposed and existing communities.	✓	✓✓	✓✓✓	✓✓✓
7. To provide quality of life and a healthy environment based on provision of consolidated recreational, residential, community and working environments based on sustainable transport patterns, to meet day to day needs.	✓	✓✓✓	✓✓✓	✓✓
<i>Comparative Score.</i>	<b>3</b>	<b>7</b>	<b>9</b>	<b>8</b>
<b>Air &amp; Noise.</b>				
8. To minimise noise, vibration, and emissions from traffic and land uses on site.	0	✓✓✓	✓✓✓	✓
<i>Comparative Score.</i>	<b>0</b>	<b>3</b>	<b>3</b>	<b>1</b>

<b>Soil &amp; Water.</b>						
9. To minimise the consumption of non-renewable sand, gravel, and rock deposits.	X	X	X	X	X	X
10. To ensure current run-off levels are not exceeded upon development of the lands.	0	0	0	0	0	0
11. To maintain the existing water quality of the waterbodies on the site.	✓	✓✓	✓✓	✓✓	✓✓	✓✓
<i>Comparative Score.</i>	<b>0</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>

<b>Sustainability.</b>						
12. To develop sustainable urban settlement patterns utilising strategic land uses in tandem with public transport provision to create a hierarchical development of interacting neighbourhoods and land uses.	✓	✓✓	✓✓✓✓	✓✓✓✓	✓✓	✓✓
13. To promote the provision of public services, community and support facilities across the site in a phased manner.	✓	✓✓✓✓	✓✓✓✓	✓✓✓✓	✓✓✓✓	✓✓✓✓
14. To avoid adverse impacts on environmental features such as landscapes, habitats and protected species, river catchments, the cultural heritage.	0	✓	✓	✓	✓	✓
15. To maximise use of SUDS	✓	✓✓	✓✓	✓✓	✓✓	✓✓
<i>Comparative Score.</i>	<b>3</b>	<b>9</b>	<b>11</b>	<b>11</b>	<b>9</b>	<b>9</b>
<b>Transportation &amp; Traffic.</b>						
16. To prioritise pedestrian and bicycle transport and access to public transport nodes.	✓	✓✓✓	✓✓✓✓	✓✓✓✓	✓✓	✓✓
17. To provide linkages to the surrounding communities.	✓	✓✓✓✓	✓✓✓✓	✓✓✓✓	✓✓✓✓	✓✓✓✓
18. To facilitate an appropriate density of mixed uses in proximity to public transport interchanges.	✓	✓✓	✓✓✓	✓✓✓	✓✓✓	✓✓✓
19. Reduce growth in the demand for private transport.	✓	✓✓	✓✓✓	✓✓✓	✓	✓
20. To minimise the impact of development on the surrounding roads network.	XX	✓✓✓	✓✓✓	✓✓✓	✓	✓
<i>Comparative Score.</i>	<b>2</b>	<b>14</b>	<b>17</b>	<b>17</b>	<b>11</b>	<b>11</b>

<b>Waste Water &amp; Water Supply.</b>									
21. To ensure the most sustainable and cost effective use of the existing waste-water and water services.	0			✓✓			✓✓✓		✓✓✓✓
22. To implement the re-usage, recycling, and conservation of water within Clonburris, where possible.	✓			✓✓			✓✓✓		✓✓✓✓
<i>Comparative Score.</i>	<b>1</b>			<b>4</b>			<b>6</b>		<b>8</b>
<b>Energy.</b>									
23. To facilitate the development of renewable energy networks to provide energy sources in Clonburris.	0			✓✓✓			✓✓✓		✓✓✓✓
To reduce demand on non-renewable fossil fuels and future electricity generation through:-									
24. To encourage high energy efficient buildings.	0			✓✓			✓✓✓		✓✓✓
25. To integrate the development of micro-renewables on built structures.	✓			✓✓			✓✓		✓✓
<i>Comparative Score.</i>	<b>1</b>			<b>7</b>			<b>8</b>		<b>9</b>
<b>Solid Waste Collection and Disposal.</b>									
26. To facilitate reductions in waste generated through:-	✓			✓✓✓			✓✓✓		✓✓✓
<ul style="list-style-type: none"> <li>• implementing 'the Proximity Principle',</li> <li>• maximising opportunities for recycling,</li> <li>• to re-use, recycle and segregate construction waste.</li> </ul>									
<i>Comparative Score.</i>	<b>1</b>			<b>3</b>			<b>3</b>		<b>3</b>
<b>Information and Communications Technology.</b>									
27. To ensure the placing underground of all electricity, telephone and TV cables within the site.	0			✓✓			✓✓✓		✓✓✓✓
28. To facilitate the development of a wireless, digitally advanced district.	0			✓✓			✓✓✓✓		✓✓✓✓
<i>Comparative Score.</i>	<b>0</b>			<b>4</b>			<b>7</b>		<b>8</b>

<b>Cultural Heritage.</b>								
29. To protect elements of Cultural Heritage on the site.	✓		✓✓		✓✓		✓✓	✓✓
30. To protect and restore Omer's Lock House.	✓		✓✓		✓✓		✓✓	✓✓
31. To maintain and improve setting and function of the Grand Canal as a destination waterway.	0		✓✓✓		✓✓✓		✓✓✓	✓✓✓
32. To accommodate areas designated under the Record of Monuments and Places within proposed open spaces.	✓		X		X		X	X
<i>Comparative Score.</i>	<b>3</b>		<b>6</b>		<b>6</b>		<b>6</b>	<b>6</b>
<b>Landscape &amp; Townscape.</b>								
33. To facilitate views of the Dublin Mountains.	0		0		0		0	0
34. To promote the principles of good urban design, providing key frontage, landmark structures, integrated streets, squares and parks.	✓		✓✓✓✓		✓✓✓✓		✓✓✓✓	✓✓✓✓
35. To improve the visual, recreational and amenity value of the Grand Canal, its towpaths and adjacent banks.	0		✓✓✓		✓✓✓		✓✓✓	✓✓
<i>Comparative Score.</i>	<b>1</b>		<b>7</b>		<b>7</b>		<b>7</b>	<b>6</b>
<b>Total score for each option.</b>	<b>20</b>		<b>74</b>		<b>87</b>		<b>87</b>	<b>77</b>

### 7.3. Preferred Option.

The development of the lands at Clonburriss must balance the requirement for sustainable development with the ecological and infrastructural constraints and quality of life issues of the site and surrounding area. Government policy from national to local level strongly advocates suitably dense development of appropriate land uses adjacent to public transport networks. Additionally, effective use of the public transport infrastructure in order to develop sustainable transport patterns should be uppermost in the proposals for the development of lands on the site. The lands are zoned for residential and District Centre use and are considered appropriate for suitably dense development.

The scoping exercise, desk studies and public consultation procedures undertaken prior to compilation of the SEA informed the design process of the Masterplan. The production of the SEA has been an iterative process, resulting in the Masterplan layout upon which Options 2-4 are based. The environmental and infrastructural issues raised in the SEA have been included in the Masterplan. The most suitable development option therefore, would provide a balance between the strategic location of the site and minimisation of key impact issues. The table below which summarises table 7.2, indicates the development scenarios with the most favourable responses from the assessment matrix.

Summary Table	Options.			
	No. 1	No. 2	No. 3	No. 4
Specific Development Objectives				
Bio-diversity, Flora & Fauna.	5	9	9	7
Population.	3	7	9	8
Air & Noise.	0	3	3	1
Soil & Water.	0	1	1	1
Sustainability.	3	9	11	9
Transportation & Traffic.	2	14	17	11
Waste Water & Water Supply.	1	4	6	8
Energy.	1	7	8	9
Solid Waste Collection and Disposal.	1	3	3	3
Information and Communications Technology.	0	4	7	8
Cultural Heritage.	3	6	6	6
Landscape & Townscape.	1	7	7	6
<b>Total score for each option.</b>	<b>20</b>	<b>74</b>	<b>87</b>	<b>77</b>

While all of the environmental issues affecting the land require amelioration, Bio-diversity, Flora & Fauna, Population, Sustainability and Traffic & Transport appear to possess the most potential for conflict. The baseline study of the site and surrounding area indicated congestion on the existing road network. The study also indicated that future upgrades to the roads network will make little difference to the congestion currently being experienced.

Focussing appropriate levels and forms of development around public transport upgrades to serve the site is key to any future proposals for the site. The nature, scope of development and form taken must maximise access to public transport, reduce demand for public and private transport movements, co-locate land uses and create

walkable neighbourhoods. The careful design of these issues can significantly reduce numbers of two, or even one car households.

### Option 1.

The tables below indicate the highest and lowest scoring environmental categories for the development option.

Highest.	Options.			
Specific Development Objectives	No. 1	No. 2	No. 3	No. 4
<b>This option did not score highly in any of the categories.</b>				

Lowest	Options.			
Specific Development Objectives	No. 1	No. 2	No. 3	No. 4
Bio-diversity, Flora & Fauna.	5	9	9	7
Transportation & Traffic.	2	14	17	11
Soil & Water.	0	1	1	1

Option 1, which relies on the Development Plan for guidance scores poorly in terms of general compliance with the Specific Development objectives. The limited levels of control of development the LAP site resulted in low compliance with development objectives in most of the environmental categories. Objectives which related to environmental categories such as bio-diversity, population, sustainability and transportation & traffic would not be achieved due to the lack of a detailed masterplan for the site. This was in contrast to the much higher compliance achieved by the proposed SDZ/LAP proposal in these categories.

#### Preamble to Options 2-4.

The assessment matrix indicates that the 3 no development options which are based around the proposed SDZ/LAP process scored higher on all of the environmental protection objectives than development Option 1. The proposed SDZ/LAP proposes similar objectives for the development of each option. The difference in the options is solely on the scale of development proposed and the impacts of such development upon the environment. This would broadly explain why Options 2-4 scored similarly.

### Option 2.

The tables below indicate the highest and lowest scoring environmental categories for the development option.

Highest	Options.			
Specific Development Objectives	No. 1	No. 2	No. 3	No. 4
Bio-diversity, Flora & Fauna.	5	9	9	7
Transportation & Traffic.	2	14	17	11
Landscape & Townscape.	1	7	7	6

Lowest	Options.			
Specific Development Objectives	No. 1	No. 2	No. 3	No. 4
Population.	3	7	9	8



Sustainability.	3	9	11	9
Waste Water & Water Supply.	1	4	6	8
Information and Communications Technology.	0	4	7	8

The assessment revealed that Option no. 2 would provide a high quality environment for residents and users of the site. High levels of environmental protection would be achieved in the form of preservation of the Canal and associated structures, along with reduced amenity demand on more fragile sites. Adequate public transport and the creation of a distinctive sense of place all combine to provide an attractive district. The option is considered, however, not to be the most sustainable option for the development of the site. In order to develop the site in the most sustainable manner, optimum use should be made of the infrastructural servicing of the land. It is considered that the optimum use of the land would be represented by providing a maximum of density and population which can support the proposed public transport, but which would not create significant negative effects on the receiving environment.

### Option 3.

The tables below indicate the highest and lowest scoring environmental categories for the development option.

Highest	Options.			
Specific Development Objectives	No. 1	No. 2	No. 3	No. 4
Transportation & Traffic.	2	14	17	11
Sustainability.	3	9	11	9
Bio-diversity, Flora & Fauna.	5	9	9	7
Population.	3	7	9	8
Landscape & Townscape.	1	7	7	6

Lowest	Options.			
Specific Development Objectives	No. 1	No. 2	No. 3	No. 4
Soil & Water.	0	1	1	1

As was mentioned in Option 2 above, achieving sustainable development on site depends on striking a balance between the development of the site in a manner which effectively utilises serviced lands in proximity to public transport without significantly impacting on identified areas of environmental sensitivity.

Option 3 proposes the optimum level of development for the site without significant adverse impact on the environmental or infrastructural issues identified in the scoping sections of the Environmental Report. The quality of the receiving environment is maintained while the quality of life issues relating to the users of the site and surrounding area are of a high standard. Option no. 3 creates the conditions for the most sustainable development of the site in achieving a balance between accommodating the majority of the requirements of the resident population on the site, while attempting to minimise impact on the receiving and surrounding environment.

It is considered that the balance achieved between the proposed quantum of development on site and environmental and infrastructural constraints noted within the SEA would result in the minimisation of potentially negative effects of

development of the site. The development of the site in accordance with Option 3 should provide for the positive aspects of higher density living, such as ease of access to services and public transport, without negative effects such as congestion.

The population is of a sufficient size to create the critical mass required for the provision of a hierarchy of local facilities, without impacting on the Grand Canal and associated areas of biodiversity value. The design and phased development of the lands in accordance with the plan will provide for the location of high density development in proximity to, and supporting, public transport nodes. Additionally, it is considered that the proposed population will not create significant additional demand for car-based movements. This will result in controlled impacts on the surrounding roads network.

#### Option 4.

The tables below indicate the highest and lowest scoring environmental categories for the development option.

Highest	Options.			
Specific Development Objectives	No. 1	No. 2	No. 3	No. 4
Sustainability.	3	9	11	9
Waste Water & Water Supply.	1	4	6	8
Energy.	1	7	8	9
Information and Communications Technology.	0	4	7	8

Lowest	Options.			
Specific Development Objectives	No. 1	No. 2	No. 3	No. 4
Air & Noise.	0	3	3	1
Cultural Heritage.	3	6	6	6
Transportation & Traffic.*	2	14	17	11
<b>* This score is low compared to that accorded to options 2&amp; 3.</b>				

Option 4 would appear to be the most efficient option in terms of provision of networks and services. The density and scale of retail, commercial and employment development proposed within the option scored highly in terms of provision of facilities which in turn allow for the creation of sustainable walkable neighbourhoods, and should reduce travel demand and facilitate sustainable transport patterns. Option 4 did score negatively with regard to a number of the most significant Specific Development objectives.

During assessment under the Traffic & Transportation section of Table 7.2 (Evaluation of Development Scenarios for Lands at Clonburr), it became clear that Option 4 would create unacceptable levels of additional congestion on the surrounding road network. Traffic and transportation studies undertaken during the course of assessment of the site indicated that the public transport network would not have sufficient capacity to accommodate the transport needs of the population under Option 4. It is believed that the inability to satisfy the transport needs of the population by way of public transport would result in increased private transport trips, creating congestion on the surrounding roads network.

The scale and quantum of residential and other development is too great for travel demand to be substantially contained within the site or managed effectively by public transport. This will potentially result in greater levels of car usage, causing congestion within and outside the site. The level of car ownership would also reduce the quality of life within the site through increased congestion, reduction of safety and accessibility for pedestrians and cyclists. The increased population would also negatively impact on the protected areas associated with the Grand Canal due to increased amenity demand and footfall pressure.

## 7.4 Conclusion.

Having assessed all of the options, it was considered that Option no. 3 has emerged as the preferable option on the basis of assessment against the Specific Development objectives for the development of the lands at Clonburris. Option no. 3 achieves the most equitable and sustainable balance for the development of the site. It is considered that a suitable balance has been achieved through proposing development of the site to accommodate significant levels of development without impacting on the environmental indicator areas identified within the SEA process.

The development of the site under the proposed SDZ/LAP Masterplan framework process would allow for significant levels of control over the implementation of the chosen option. Control of development through the Masterplan mechanism would facilitate the sustainable development patterns indicated within Option 3.

It is considered that the optimum use of the land would be represented by providing a maximum of density and population which can support the proposed public transport provision, but which would not create significant negative effects on the receiving environment. Option no. 3 would provide the highest level of protection to the receiving environment and accommodate significant integration of environmental considerations into the plan. Option 3 proposes the following quanta of development:

### **Option 3. Medium Density within SDZ/LAP.**

- Projected construction of 15-16,000 units, which may result in a population of 30,000-35,000 people, depending on population structure.
- 60-65,000 sqm of retail.
- 160-180,000 sqm Employment/Office uses in proximity to the rail stations.

Option 3 will be subject to further assessment as detailed in chapter 8. The compliance of Option 3 with the Specific Development Objectives will be examined in more detail in order indicate issues which may required mitigation and monitoring.

## 8. Assessment of Selected Option.

### 8.1 Introduction.

As discussed in the previous section, Option 3 was selected on the basis of compatibility with the Specific Development Objectives. As can be seen from the comparative scoring system within table 7.2, Options 2-4 were more compliant with the Strategic Development Objectives than Option 1. Options 2-4 would involve a development through implementation of a detailed plan framework containing specific objectives and guidance on the layout, form, density, phasing, amelioration measures and monitoring of the construction and day to day operation of the lands. It is not considered likely that Option 1 would provide the same level of detail or control over the development of the site.

While the noted scores for the 3 no. SDZ/LAP options were relatively close, it is considered that Option 3 was the most suitable development option overall. Option 3 provided the most equitable balance between the facilitation of a sustainable community utilising high quality public transport with a high level of available amenities, while minimising damage to the receiving environment. However, further explanation of the compatibility of Option no. 3 was considered necessary.

Option no. 3 was the most consistent development scenario in terms of overall compliance with the Specific Development Objectives. The selected Option provided a balanced development scenario for the site taking into consideration the various environmental, sociological and infrastructural constraints and opportunities on the site. This section of the SEA will discuss compliance of Option no 3. with the various environmental indicators utilised in the overall SEA assessment.

### 8.2 Biodiversity, Flora & Fauna.

Specific Development Objectives	Options.			
	No. 1	No. 2	No. 3	No. 4
Bio-diversity, Flora & Fauna.	-2	9	9	7

Some of the habitats, flora and fauna of the site are protected by a range of EU and National legislation. This legislation affords protection to certain species which reside on the site, mainly are associated with the Grand Canal. The Grand Canal and northern and southern banks and ditches are a proposed Natural Heritage Area and are considered the premier habitat and amenity asset on the site. The holistic protection of the Grand Canal should protect the species which are associated with canal while maintaining the canal for the use and enjoyment of the inhabitants of the site and surrounding area and canal users.

The SEA study revealed a number of habitats within the site which were considered to be of ecological value. Although these sites are not afforded any legislative protection, inclusion within the design as part of an open space strategy was considered to be beneficial to the overall area and to the Grand Canal and associated banks. The protection of the canal complex and the creation of a buffer area in order to protect the canal in its current setting was promoted as a Specific Development Objective as a result.

Development Option 3 proposes to:-

- Create a network of green spaces in the form of pocket parks, linear parks, SUDS, regional parks and canalside parks, based around the provision of linked spaces in so far as is possible;
- Create a buffer between the Canal, the associated banks and ditches and any built form;
- Retain a number of unprotected areas of habitat value;
- Manage and improve the hedgerows and ditches associated with the Grand Canal.

It was considered that the level of development proposed within Option 3 struck a balance between protecting the ecological health of the Grand Canal and associated banks and ditches and providing for the amenity needs of the new district through the open space network to be provided within the Masterplan layout. Significant areas of habitat potential adjacent to the canal would be retained as part of the masterplan for the area.

<b>8.3 Population.</b>				
<b>Specific Development Objectives</b>	<b>Options.</b>			
	<b>No. 1</b>	<b>No. 2</b>	<b>No. 3</b>	<b>No. 4</b>
Population.	3	7	9	8

The existing site has a minimal population. The surrounding areas have been developed over the last 20 or so years with the majority of development taking place in the last decade. Social infrastructure has not kept pace with the residential development in the surrounding area. The Outer Ring Road, Fonthill Road, canal and railway line act as barriers to north-south and east-west movement on the site.

On a wider scale the site has potential to deal with the requirement for social infrastructure in the surrounding areas.

The SEA revealed that in general, the day to day needs of the surrounding populations are not being fully served in the locality, resulting in increased need for transport movements, social deprivation and isolation. The sense of isolation is increased by the severance of the surrounding areas from the each other by the site. The SEA also revealed that the population of South Dublin was experiencing outward migration due to a lack of affordable housing in the County. A requirement for a greater mix of housing types and tenures was identified.

Development Option 3 proposes to:-

- Provide a mix of housing types and tenures;
- Create a permeable accessible street network;
- Provide community facilities and infrastructure in a phased manner;
- Create a walkable community based around provision of consolidated recreational, residential, community and working environments based on sustainable transport patterns, to meet day to day needs.

It was considered that the population and quantum of development proposed for the site under Option no.3 was appropriate. In providing for the recreational, community and working needs of the local area, the scale and massing of development provided opportunities for the provision of a range of facilities which would not be possible in a less populated area. While it could be considered that Option 4, which proposed a larger population would have been more appropriate, a larger population would have more significant impacts on the receiving environment in terms of habitats, traffic, noise and air pollution.

<b>8.4 Air &amp; Noise.</b>				
<b>Specific Development Objectives</b>	<b>Options.</b>			
	<b>No. 1</b>	<b>No. 2</b>	<b>No. 3</b>	<b>No. 4</b>
Air & Noise.	0	3	3	0

The Outer Ring Road (ORR), Fonthill Road, Fonthill Link Road and Dublin-Kildare Railway Line all pass through the site. Although the roads and rail line do not currently cause noise and air pollution, there is potential for pollution arising through development of the site. At present there are not a substantial amount of dwellings on site proximate to the roads and rail line, however upon development of the site, this will change.

The SEA noted that the greatest potential for increased noise and air pollution within and around the site came from increased car usage. The SEA also noted that the expansion of the rail line under the Kildare Route Project has potential to impact upon any development proximate to the railway line. Additionally, it was considered that the speed of traffic and nature of the ORR in particular would create an unpleasant environment for many development types.

Development Option 3 proposes to:-

Minimise noise, vibration and emissions from car usage on site through:-

- The creation of walkable mixed-use neighbourhoods and provision of day to day needs within the site, including the provision of high-quality, high-frequency public transport.

Options 2-4 provided for the location of non-residential uses in proximity to areas of heavy road and rail use, however Options 2 and 3 were considered to be more capable of providing for development of the site without impacting negatively on air and noise pollution levels. This is due to provision of significant amounts of day to day needs within the site, resulting in reduced amounts of car usage within and around the Clonburris.



<b>8.5 Soil &amp; Water.</b>				
<b>Specific Development Objectives</b>	<b>Options.</b>			
	<b>No. 1</b>	<b>No. 2</b>	<b>No. 3</b>	<b>No. 4</b>
Soil & Water.	-2	0	<b>0</b>	0

The lands are currently used for agricultural purposes and as such have little impact on the receiving environment with regard to soils or surface water.

The SEA research indicated that the development of the land under any of the 4 no. proposed options would result in damage to the existing soil structure. The development of the lands under all four options would also utilise non-renewable sand, gravel and rock deposits. The SEA indicated that where possible water quality on site should be maintained, and that in the case of the Grand Canal, the current water quality should be considered the baseline for that structure.

Development Option 3 proposes to:-

- Implement SUDS to filter surface water run-off;
- Maintain 14% or more of the site for parks and green networks;
- Maintain the existing soils structure in and around the protected Grand Canal area;
- Protect Salmonid water-bodies in the area.

Option 3 is likely to result in the removal of the majority of the existing soil structure except in places of ecological sensitivity. The development proposes to create a network of SUDS. Additionally, it is considered that the development of the lands under a medium range population target will not put undue pressure on the water quality of the Grand Canal. It is suggested that a detailed management programme for the Canal and other sensitive water bodies is drawn up for the construction and habitation stages of the site.

<b>8.6 Transportation &amp; Traffic.</b>				
<b>Specific Development Objectives</b>	<b>Options.</b>			
	<b>No. 1</b>	<b>No. 2</b>	<b>No. 3</b>	<b>No. 4</b>
Transportation & Traffic.	-5	14	<b>17</b>	7

The site generates few traffic movements due to its undeveloped nature. Studies undertaken as part of the SEA and proposed SDZ/LAP process have indicated that the roads network surrounding the site suffers from increasing congestion. Therefore development needs to address increasing car usage and traffic levels by encouraging public transport usage. A structured development that reduced the need to travel alongside high levels of usage of sustainable modes of transport is desirable.

Development Option 3 proposes to:-

- Prioritise public transport and ease of access to public transport;

- Prioritise pedestrian and cyclist access within the site and to the surrounding areas;
- Create suitable densities to facilitate high usage of public transport;
- Permeable network and connected streets and neighbourhoods;
- A good range of local facilities to meet day to day needs.

The implementation of a sustainable transport policy in Clonburriss involves creating a balance between reducing the need to travel, facilitating travel movements by way of public transport, and minimising impact on the surrounding road network. Surplus trips which cannot be satisfied within the site or by public transport would be expected to be made by car. In order to facilitate a sustainable transport policy such as this, a high density of development is required in order to create the demand and critical mass for higher order local facilities which can satisfy a significant amount of day to day needs within the site. Creating ease of access to high-frequency, high-quality public transport is also essential. Maintenance of car ownership and usage at minimum levels is important to maintain the balance required for development based around sustainable transport movements.

It is considered that Option no. 3 creates the most achievable balance between satisfying the travel requirements of a proposed population through public transport, resulting in little adverse effect on the surrounding roads network. It is envisaged that the projected population would provide the critical mass required to create demand for a sufficient level of commercial, retail, community and employment uses within the site. The layout of the masterplan intends to create a permeable series of connected streets to provide ease of pedestrian access to the public transport network. It is envisaged that the provision of higher densities of development in proximity to such public transport nodes will facilitate more intensive use of public transport and surrounding facilities.

<b>8.7 Waste Water &amp; Water Supply.</b>				
<b>Specific Development Objectives</b>	<b>Options.</b>			
	<b>No. 1</b>	<b>No. 2</b>	<b>No. 3</b>	<b>No. 4</b>
Waste Water & Water Supply.	0	4	6	8

The site currently has minimal impact upon waste water or water supply networks due to its undeveloped nature. During research for the SEA, regard was had to regional study documentation regarding the facilitation of waste water and water supply networks for Dublin and to the site. Particular regard was had to the reduction of wastage of water.

Development Option 3 proposes to:-

- Provide sustainable and cost effective usage of the waste water and water supply services on the site.
- Re-use, recycle and conserve water within Clonburriss where possible.

Option 3 proposes a medium to high density of development of the land, with a high intensity of use in the areas around the District Centre. It is considered that through this development option, cost effective and sustainable usage will be made of the

infrastructure provided. Option 3 also proposes to implement objectives regarding the installation of water re-cycling and to utilise bye-laws relating to the monitoring and reduction of water usage within the site. This should be dealt with further in the monitoring section of the SEA.

<b>8.8 Energy.</b>				
<b>Specific Development Objectives</b>	<b>Options.</b>			
	<b>No. 1</b>	<b>No. 2</b>	<b>No. 3</b>	<b>No. 4</b>
Energy.	1	7	8	9

The site currently has minimal energy requirements due to its undeveloped nature. During the scoping and research stage of the SEA regard was had to certain national energy papers recommending the promotion of energy efficiency in the built environment along with the creation of energy from renewable resources.

Development Option 3 proposes to:-

- Promote and encourage the development of renewable energy networks, and the construction of high energy efficiency buildings to include micro-renewable structures.
- Reduce carbon emissions.

The development of the site as per Option 3 will facilitate the conditions required to reduce the need to travel, thus reducing car usage and the energy requirements of private transport. Sufficient population levels, provision of suitable local facilities, and denser development in proximity to high frequency public transport should reduce transport demand. In addition, it is considered that the critical mass of development being proposed by Option 3 will enable the inclusion of energy efficient design along with possibilities for the creation of renewable energy networks to serve the site. Enabling and facilitating the inclusion of renewable energy generating structures within the overall built form is also encouraged.

<b>8.9 Solid Waste Collection and Disposal.</b>				
<b>Specific Development Objectives.</b>	<b>Options.</b>			
	<b>No. 1</b>	<b>No. 2</b>	<b>No. 3</b>	<b>No. 4</b>
Solid Waste Collection and Disposal.	1	3	3	3

The site currently has minimal waste collection and disposal needs due to its undeveloped nature. During the scoping and research stage of the SEA regard was had to strategic waste documentation requiring the re-use, reduction and recycling of waste products.

Development Option 3 proposes to:-

- Facilitate increased access to on site recycling facilities.
- Implement the recycling and re-use of construction waste.

Any development of the site will result in significant amounts of construction waste. The development of the site as per Option 3 will allow for the establishment of a strategy to accommodate, separate and recycle the waste generated by the phased construction of the site in an orderly fashion. Option 3 will also provide for the creation of a integrated community recycling strategy from the waste generation source up to potential disposal at the community recycling facility.

<b>8.10 Information and Communications Technology.</b>				
<b>Specific Development Objectives.</b>	<b>Options.</b>			
	<b>No. 1</b>	<b>No. 2</b>	<b>No. 3</b>	<b>No. 4</b>
Information and Communications Technology.	0	4	7	8

The site currently has minimal information and communications technology infrastructure due to its undeveloped nature. Initial research for the SEA highlighted Government policy on the capability of high speed digital networks in new developments to facilitate economic growth through satisfying and promoting new forms of electronic working and living.

Development Option 3 proposes to:-

- Facilitate the development of high speed, high frequency digital networks.

It is considered that Option 3 will provide the opportune conditions for effective use of information and communications technology, and facilitate future technological advances to be utilised on site.

<b>8.11 Cultural Heritage.</b>				
<b>Specific Development Objectives</b>	<b>Options.</b>			
	<b>No. 1</b>	<b>No. 2</b>	<b>No. 3</b>	<b>No. 4</b>
Cultural Heritage.	2	6	6	4

The site contains a number of areas and structures of cultural significance. These include sites such as the Grand Canal, the associated locks and lockhouse and 2 no. potential enclosure sites. The SEA study also revealed a number of areas of archaeological potential.

Development Option 3 proposes to:-

- Protect and restore the elements of cultural heritage associated with the Grand Canal, including restoration and maintenance of the canal landscape.
- Utilise local historical names in the development of the area.

Option 3 proposes the creation of a park along the Grand Canal and includes the restoration of Omer's Lock House. In addition, the creation of a network of green spaces around the Grand Canal will provide a buffer area enabling the maintenance of the delicate ecosystems associated with the canal banks and ditch systems. It is considered that Option 3 creates the most effective balance between maintaining the cultural heritage of the Grand Canal, and opening up the canal to amenity and recreational use.

Amelioration and monitoring of the usage of the canal will be required in order to develop an adaptive management system for all of the stakeholders involved in this section of the Grand Canal.

<b>8.12 Landscape &amp; Townscape.</b>				
<b>Specific Development Objectives</b>	<b>Options.</b>			
	<b>No. 1</b>	<b>No. 2</b>	<b>No. 3</b>	<b>No. 4</b>
Landscape & Townscape.	1	9	9	8

The landscape within the site is semi-rural. There are open views to the Dublin Mountains south of the site, however views from the site to the surrounding suburban areas are restricted by the maturing tree growth of the surrounding streets, parks and gardens. Landscape surveying for the SEA identified the landscape associated with the Grand Canal as an area of importance.

Development Option 3 proposes to:-

- Create a clear and legible urban streetscape utilising connected streets, key frontage, landmarks and urban parks.
- The landscape associated with the canal will be retained and protected by the creation of a network of parks around the canal, and its associated banks and ditches.
- Create clear physical linkages with surrounding communities.

The development of the site as per Option 3 will replace the existing semi-rural landscape with an urban streetscape. This would happen under all of the development options proposed for the site. Option 3 will allow for the retention of the landscape associated with the Grand Canal. In addition, a more coherent, visually stimulating and exciting urban streetscape will be facilitated allowing for the creation of place. As per the surrounding residential areas, landscaping and tree planting along streets and the comprehensive parks network will substantially soften the impact of development on the site.

<b>8.13 Sustainability.</b>				
<b>Specific Development Objectives</b>	<b>Options.</b>			
	<b>No. 1</b>	<b>No. 2</b>	<b>No. 3</b>	<b>No. 4</b>
Sustainability.	1	9	11	10

While sustainability is not a defined environmental indicator within the SEA regulations, it is considered an integral principle for the development of the site. It is with this in mind that the environmental protection objectives and strategic development objectives were proposed for the overall site. Taking advantage of the connectivity of the site to public transport to create a walkable, usable neighbourhood capable of accommodating day to day uses within the local area was considered of primary importance in the vision for the development of Clonburris.

Development Option 3 proposes to:-

- To avoid adverse impacts on environmental and cultural features;
- To provide quality of life and a healthy environment;
- To provide consolidated recreation residential, community and working environments based on sustainable transport patterns;
- To provide access to sustainable forms of transport;
- To effectively utilise services networks;
- To phase the delivery of infrastructure and amenities in tandem with the population build up;
- To phase the build-up of development and population on site with the provision of increased levels of public transport provision.

It is considered that Option 3 will result in the most sustainable development of the site. The proposed combination of a permeable design framework, enabling promotion of sustainable modes of transport; provision of a critical level of community facilities; effective usage of infrastructural networks; identification and protection of habitats of importance; and design and development of eco-friendly measures during the construction and future use of the site will provide for effective sustainable development. The sustainable development of the site depends on the combination and effective implementation of all of the environmental indicator issues within the SEA to create a development with a reduced ecological footprint. Option 3 has complied most effectively with the strategic development objectives and as such is considered to have the potential to create the most sustainable development framework.

## **8.14 Conclusion.**

Development options 1-4 were assessed in accordance with the environmental indicators required under the SEA directive. On balance, Option 3 complied most closely with the strategic development objectives of the SEA. Further explanation of the rationale behind the selection of Option 3 indicated compliance with the objectives and the sustainable development vision of the proposed SDZ/LAP process.

Development Option 3 provides the most suitable form of development for the site due to:-

- Projected size of population;
- Density of development;
- Mass and intensity of development;
- Provisions for permeability, layout and ease of access through out the site to the surrounding areas and public transport nodes;
- Compatibility with the environmental, infrastructural and sociological constraints and opportunities of the site.



## 9. Mitigation.

### 9.1 Mitigation Measures.

This section reviews the measures that have been adopted to address the significant effects or impacts of the Plan. The SEA Directive provides broad guidance on defining what impacts are significant. The EPA Guidelines on SEA (2003) stated that mitigation “may involve preventing impacts altogether, reducing their magnitude as much as possible and/or probability of occurrence, or putting in place measures to remedy effects after they have occurred, or to compensate for them by providing environmental benefits elsewhere”. The Irish Regulations (S.I. No. 435 of 2004) state that significant effects should include secondary, cumulative, synergistic, short, medium and long-term, permanent and temporary, positive and negative effects.

During the preparation of the Plan, the SEA process served to inform the Planning Department that a number of mitigation measures were required. These measures range from infrastructural measures to policy changes.

Consideration of the proposed SDZ/LAP planning strategy against the Strategic Development Objectives listed in the SEA report demonstrated that further actions were required to mitigate identified impacts. The key recommendations arising from the SEA exercise are detailed in the following sections.

In order to fully implement, monitor, manage and guide the development of an approved plan framework for Clonburris, it is considered appropriate that a number of interlinked groups would be established to oversee the development of the site:

- A Clonburris Steering Group to oversee and monitor assist development in Clonburris to ensure it is undertaken in accordance with the approved plan framework;
- A Sustainability Management and Appraisal Committee which will promote sustainability and environmental performance in new development on the site through use of project objectives; provide advice on planning applications, and sustainable development;

To complement these and monitor development at Clonburris against this Environmental Report, it is proposed to establish a Clonburris Development Management Committee. Such a committee would be charged with monitoring implementation of the mitigation measures detailed below.

**Table 9.1 Assessment of Mitigation Measures.**

<b>Environ-mental Issue.</b>	<b>Specific Development Objectives.</b>	<b>Potential Areas of Conflict</b>	<b>Mitigation Proposals.</b>
<b>Biodiversity, Flora &amp; Fauna.</b>	1. To protect the flora and fauna designated under the Habitats	<b>A).</b> Development in proximity to pNHA & identified habitats.	<ul style="list-style-type: none"><li>• Development of a detailed overall open space strategy for</li></ul>

	<p>Directive.</p> <p>2. To protect the proposed Natural Heritage Area (pNHA).</p> <p>3. To preserve the trees and hedgerows identified for protection in the County Development Plan.</p> <p>4. That sites for green space should combine open space amenity and habitat value in a linked green network.</p>	<p><b>B).</b> Increased amenity demands on the Canal and associated habitats.</p> <p><b>C).</b> Development would encroach on hedgerows and trees to be retained.</p> <p><b>D).</b> Development would encroach on lands with most open space potential, resulting in lost opportunity to create network of linked open spaces.</p> <p><b>E).</b> The seasonal wetland area adjacent to railway line may be developed upon.</p>	<p>Clonburris indicating open space, location, linked network of open spaces.</p> <ul style="list-style-type: none"> <li>• Development of a plan detailing site management proposals for the retention of identified habitats during construction.</li> <li>• Development of a comprehensive management plan for the Grand Canal to include measures to facilitate increased pressures of amenity and canal usage without significant loss of habitat value.</li> <li>• Prior to any development taking place, management plans detailing proposals for the maintenance of areas of identified habitat value during construction and occupation stages should be submitted. Such plans should detail built in mechanisms for review.</li> <li>• Design and locate a seasonally flooded site within the newly extend Griffeen Valley Park.</li> </ul>
<b>Population</b>	<p>5. To provide a varied mix of housing types, tenures and sizes and to facilitate the life cycle of a sustainable community.</p> <p>6. To provide a variety</p>	<p><b>A).</b> That the various developments may not provide a sufficiently varied mix of uses, typologies and sizes, and that development may not be accessible to</p>	<ul style="list-style-type: none"> <li>• Develop a strategy for the provision of social and affordable housing be submitted to the Council.</li> <li>• Include specific objectives relating to</li> </ul>

	<p>of employment uses in proximity to proposed and existing communities.</p> <p>7. To provide quality of life and a healthy environment based on provision of consolidated recreational, residential, community and working environments based on sustainable transport patterns, to meet day to day needs.</p>	the surrounding communities.	housing mix, tenure and size within the SDZ/LAP planning framework.
<b>Human Health. Air &amp; Noise.</b>	8. To minimise noise, vibration, and emissions from traffic and land uses on site.	<p><b>A).</b> Noise and air pollution from the Railway line and the Strategic Roads within the site.</p> <p><b>B).</b> Noise and air pollution from construction on the site.</p> <p><b>C).</b> Noise and air pollution from car usage within the site.</p>	<ul style="list-style-type: none"> <li>• The SDZ/LAP proposes certain land uses and buffer zones beside the rail and road infrastructure. It is considered that this will mitigate against pollution in the adjacent areas.</li> <li>• Appropriate site management measures are to be require prior to construction in order to mitigate against noise and air pollution from construction activities.</li> <li>• Develop Transport Management Plans, to include proposals to effectively promote public transport and reduce car usage.</li> </ul>
<b>Soil &amp; Water.</b>	<p>9. To minimise the consumption of non-renewable sand, gravel, and rock deposits.</p> <p>10. To ensure current run-off levels are not</p>	<p><b>A).</b> Potential for construction run-off to enter canal and salmonid waterbodies on site.</p> <p><b>B).</b> Potential for run off</p>	<ul style="list-style-type: none"> <li>• Develop and implement measures to avoid contact between site run-off and the canal &amp; waterbodies, during and after</li> </ul>

	<p>exceeded following development of the lands.</p> <p>11. To maintain or improve the existing water quality of the waterbodies on the site.</p>	<p>post development to enter canal and salmonid waterbodies.</p> <p><b>C).</b> That development may encroach on existing soil structure in potential areas of green space.</p>	<p>construction.</p> <ul style="list-style-type: none"> <li>• Protect soil structure in identified areas, through detailed site management procedures.</li> </ul>
<b>Sustain-ability.</b>	<p>12. To develop sustainable urban settlement patterns utilising strategic land uses in tandem with public transport provision to create a hierarchical development of interacting neighbourhoods and land uses.</p> <p>13. To promote the provision of public services, community and support facilities across the site in a phased manner.</p> <p>14. To avoid adverse impacts on environmental features such as landscapes, habitats and protected species, river catchments, the cultural heritage.</p> <p>15. To maximise use of SuDS</p>	<p><b>A).</b> That community demands are not fully served by the proposed services and facilities.</p> <p>Areas of potential conflict between the development of the site and environmental features are dealt with in different sections of this table.</p>	<ul style="list-style-type: none"> <li>• Establish a Sustainability Management and Appraisal Committee to monitor and review issues and targets associated with the sustainable development of the site.</li> </ul>
<b>Transportation &amp; Traffic.</b>	<p>16. To prioritise pedestrian and bicycle transport and access to public transport nodes.</p> <p>17. To provide linkages to the surrounding communities.</p> <p>18. To facilitate an</p>	<p><b>A).</b> Potential for conflict between car usage and walking and cycling movements.</p> <p><b>B).</b> That the available public transport is not fully exploited, leading to increased car usage.</p>	<ul style="list-style-type: none"> <li>• Develop Transport Management Plans with specific emphasis on the implementation of public transport strategies.</li> </ul>

	<p>appropriate density of mixed uses in proximity to public transport interchanges.</p> <p>19. Reduce growth in the demand for private transport.</p> <p>20. To minimise the impact of development on the surrounding roads network.</p>	<p>C). That car trips would increase, creating adverse impacts on the local roads network.</p>	
<p><b>Waste Water &amp; Water Supply.</b></p>	<p>21. To ensure provision of the most effective and cost effective network for the waste water and water services.</p> <p>22. To maximise the re-usage, recycling, and conservation of water within Clonburris, where possible</p>	<p>A). That water recycling networks are not implemented within Clonburris, resulting in greater levels of water usage.</p>	<ul style="list-style-type: none"> <li>• Develop appropriate waste water and water strategies for the site.</li> </ul>
<p><b>Solid Waste Collection and Disposal.</b></p>	<p>(F) 26. To facilitate reductions in waste generated through:-</p> <ul style="list-style-type: none"> <li>• implementing ‘the Proximity Principle’,</li> <li>• maximising opportunities for recycling,</li> <li>• to re-use, recycle and segregate construction waste.</li> </ul>	<p>A). That ease of access to recycling facilities is not provided in the development of Clonburris.</p> <p>B). That targets for recycling in Clonburris are not achieved resulting in greater diversion of waste to landfill.</p> <p>C). That sufficient recycling facilities to cater for demand in Clonburris are not provided.</p>	<ul style="list-style-type: none"> <li>• Develop and implement measures to ensure that targets and measures in respect of recycling set out in the plan are met.</li> </ul>
<p><b>Information and Communications Technology.</b></p>	<p>27. To ensure the placing underground of all electricity, telephone and TV cables within the site.</p>	<p>A). That placing such networks under ground will impact upon the soil structure to be retained in protected</p>	<ul style="list-style-type: none"> <li>• Develop a methodology to guide provision of underground cables to minimise their impact.</li> </ul>

	28. To facilitate the development of a wireless, digitally advanced district.	areas and areas of open space. <b>B).</b> That placing of cabling underground will affect the canal and associated spaces.	
<b>Cultural Heritage.</b>	29. To protect elements of Cultural Heritage on the site. 30. To protect and restore Omer's Lock House. 31. To maintain and improve the setting and function of the Grand Canal as a destination waterway. 32. To accommodate areas designated under the Record of Monuments and Places (RMP) within proposed open spaces.	<b>A).</b> That the development of high density zones in proximity to Fonthill Station will result in the loss of a potential archaeological site. <b>B).</b> That development in proximity to the Grand Canal will impinge on the setting of the canal and affect RMP017-035 to the north of the canal. <b>C).</b> That the construction of the bridges over the canal and new basin will resulting a deterioration of the water quality in the canal and Cappagh Overflow.	<ul style="list-style-type: none"> <li>• Ensure that the buffer areas of open space included in the SDZ/LAP planning framework adjacent to the canal, are delivered and if possible incorporate potential site RMP017-035</li> <li>• Ensure that any potential sites which cannot be accommodated intact are adequately archaeologically investigated, excavated and recorded prior to development.</li> </ul>
<b>Landscape &amp; Townscape.</b>	<b>(H)</b> 33. To facilitate views of the Dublin Mountains. 34. To promote the principles of good urban design, providing key frontage, landmark structures, integrated streets, squares and parks. 35. To improve the visual, recreational and amenity value of the Grand Canal, its towpaths and adjacent banks.	<b>A)</b> That poor urban design will result in less attractive streets, open spaces and impact upon the quality of live experienced in Clonburris.	<ul style="list-style-type: none"> <li>• Ensure that townscape and urban design guidance within the Plan are implemented.</li> </ul>

## 10. Monitoring Measures.

### 10.1 Monitoring.

Article 10 of the SEA Directive requires that monitoring be carried out in order to identify at an early stage any unforeseen adverse effects due to the implementation of the Plan, and to be able to take remedial action. Monitoring and review are key elements of the effective implementation of the proposed SDZ/LAP. It ensures that social, economic and physical objectives are fulfilled and that quality of life issues can be assessed.

South Dublin County Council (SDCC) is the primary monitoring body of the SDZ/LAP planning framework. South Dublin County Council as development agency for the SDZ as well as Planning Authority for the area will be responsible for monitoring compliance with the strategy documents proposed as mitigation measures. In addition, the County Council will monitor development to ensure compliance with the proposed SDZ/LAP planning framework. Monitoring the development in this manner will enable the identification and remediation of unforeseen adverse effects. Further indication of the monitoring to be undertaken is detailed in the table below. The table provides a brief overview of the monitoring of mitigation measures associated with the various Environmental Indicators and Strategic Development Objectives.

The Clonburris Development Management Committee described in Chapter 9 will be established in order to fully monitor the performance of development at Clonburris against the Environmental Report.

In addition, the Council will liaise with the Environmental Protection Agency and other agencies to ensure that the environmental impacts of the Plan are monitored in accordance with the Department of Environment and Local Government guidelines and/or Strategic Environmental Assessment (SEA) Guidelines.

It is intended that a monitoring report on the implementation of the SDZ/LAP will be prepared every year.

**Table 10.1 Monitoring of mitigation measures.**

<b>Environmental Issue.</b>	<b>Environmental Protection Objectives</b>	<b>Specific Development Objectives.</b>	<b>Monitoring Proposals.</b>
<b>Bio-diversity, Flora &amp; Fauna.</b>	<b>A) Objective 1. (Biodiversity)</b> To maintain the biodiversity of the site through protection of existing habitats where possible.	1. To protect the flora and fauna designated under the Habitats Directive. 2. To protect the proposed Natural Heritage Area (pNHA) 3. To preserve the trees and hedgerows identified for protection in the County Development Plan.	South Dublin County Council to monitor and enforce ecological assessments, habitat management strategies, and Clonburris Landscape Masterplan submitted as part of the development process. In addition, Waterways Ireland, &



		4. That sites for green space should combine open space amenity and habitat value in a linked green network.	National Parks and Wildlife Services to monitor activity on Grand Canal & Associated sites.
<b>Population</b>	<b>(B)</b> Objective 2. (Population) To provide the basis for a new community to meet housing need in the Dublin region in a sustainable manner.	5. To provide a varied mix of housing types, tenures and sizes and to facilitate the life cycle of a sustainable community. 6. To provide a variety of employment uses in proximity to proposed and existing communities. 7. To provide quality of life and a healthy environment based on provision of consolidated recreational, residential, community and working environments based on sustainable transport patterns, to meet day to day needs.	South Dublin County Council to enforce social and affordable housing strategy and additional targets regarding mix, house type. South Dublin County Council to enforce proposed SDZ/LAP planning framework to ensure compliance.
<b>Human Health, Air &amp; Noise.</b>	<b>(C)</b> Objective 3. (Human Health, Air & Noise) Not to increase the impact of Air, Soil, Noise & Water pollution on the existing environment.	8. To minimise noise, vibration, and emissions from traffic and land uses on site.	South Dublin County Council to monitor design proposals and site management procedures to ensure compliance. EPA standards to be adhered to.
<b>Soil &amp; Water.</b>	<b>(C)</b> Objective 3. (Human Health, Air & Noise) Not to increase the impact of Air, Soil, Noise & Water pollution on the existing environment	9. To minimise the consumption of non-renewable sand, gravel, and rock deposits. 10. To ensure current run-off levels are not exceeded following development of the lands. 11. To maintain or improve the existing water quality of the waterbodies on the site.	South Dublin County Council to enforce proposed SDZ/LAP masterplan framework to ensure compliance. Monitoring of site management proposals, along with identification and maintenance of existing soil structure through use of overall landscape masterplan. EPA

			standards to be adhered to.
<b>Sustainability.</b>	<b>(I)</b> Objective 9. (Sustainability) To create a sustainable community that utilises best current practice and standards as appropriate.	12. To develop sustainable urban settlement patterns utilising strategic land uses in tandem with public transport provision to create a hierarchical development of interacting neighbourhoods and land uses. 13. To promote the provision of public services, community and support facilities across the site in a phased manner. 14. To avoid adverse impacts on environmental features such as landscapes, habitats and protected species, river catchments, the cultural heritage. 15. To maximise use of SUDS	South Dublin County Council to enforce proposed SDZ/LAP planning framework to ensure compliance. This includes establishing, participating in and monitoring the Clonburris Management Committee to be established as part of the mitigation measures. The Management Committee will provide an effective structure for the monitoring and corrective amendment of development in Clonburris.
<b>Transportation &amp; Traffic.</b>	<b>(D)</b> Objective 4. (Transportation & Traffic) To maximise usage of public transport and minimise adverse impact on the existing road network.	16. To prioritise pedestrian and bicycle transport and access to public transport nodes. 17. To provide linkages to the surrounding communities. 18. To facilitate an appropriate density of mixed uses in proximity to public transport interchanges. 19. Reduce growth in the demand for private transport. 20. To minimise the impact of development on the surrounding roads network.	South Dublin County Council to enforce proposed SDZ/LAP planning framework to ensure compliance. South Dublin County Council/DTO to monitor submitted transport management plans, walkable neighbourhood strategies, & public transport strategy plans to ensure compliance and functionality.
<b>Waste Water &amp; Water Supply.</b>	<b>(E)</b> Objective 5. (Water Supply, Waste Water, Gas Supply,	21. To ensure provision of the most effective and cost effective network for the waste water and water	South Dublin County Council to enforce proposed SDZ/LAP planning framework to

	Electricity Supply, and Information Technology Networks) To ensure appropriate provision of network infrastructure is made to ensure development in this area.	services. 22. To maximise the re-usage, recycling, and conservation of water within Clonburris, where possible.	ensure compliance and to implement grey-water schemes along with reductions in water usage.
<b>Energy.</b>	<b>E)</b> Objective 5. (Water Supply, Waste Water, Gas Supply, Electricity Supply, and Information Technology Networks) To ensure appropriate provision of network infrastructure is made to ensure development in this area	23. To facilitate the development of renewable energy networks to provide energy sources in Clonburris. 24. To encourage high energy efficient buildings. 25. To integrate the development of micro-renewables on built structures.	South Dublin County Council to enforce proposed SDZ/LAP planning framework to ensure compliance with solar design issues, low emissions building strategy and thermal building design proposals, among other energy conserving issues.
<b>Solid Waste Collection and Disposal.</b>	<b>(F)</b> Objective 6. (Solid Waste) To reduce waste production and maximise recycling.	26. To facilitate reductions in waste generated through:- <ul style="list-style-type: none"> <li>• implementing ‘the Proximity Principle’,</li> <li>• maximising opportunities for recycling,</li> <li>• to re-use, recycle and segregate construction waste.</li> </ul>	South Dublin County Council to enforce proposed SDZ/LAP planning framework to ensure compliance with detailed targets and strategies relating to reducing and recycling domestic waste in addition to enforcing separation of waste and monitoring waste outputs from construction sites. EPA assistance in monitoring such issues will be utilised.

<p><b>Information and Communications Technology.</b></p>	<p><b>(E)</b> Objective 5. (Water Supply, Waste Water, Gas Supply, Electricity Supply, and Information Technology Networks) To ensure appropriate provision of network infrastructure is made to ensure development in this area.</p>	<p>27. To ensure the placing underground of all electricity, telephone and TV cables within the site. 28. To facilitate the development of a wireless, digitally advanced district.</p>	<p>South Dublin County Council to enforce proposed SDZ/LAP planning framework to ensure compliance.</p>
<p><b>Cultural Heritage.</b></p>	<p><b>(G)</b> Objective 7. (Cultural Heritage) To protect and enhance items or areas of Cultural Heritage on the site.</p>	<p>29. To protect elements of Cultural Heritage on the site. 30. To protect and restore Omer's Lock House. 31. To maintain and improve the setting and function of the Grand Canal as a destination waterway. 32. To accommodate areas designated under the Record of Monuments and Places (RMP) within proposed open spaces.</p>	<p>South Dublin County Council to enforce proposed SDZ/LAP planning framework to ensure compliance with proposals for noted areas of heritage and cultural value. It is expected that Waterways Ireland, The National Parks and Wildlife Services and the Heritage Council would also be involved in monitoring development for compliance with the proposed SDZ/LAP.</p>
<p><b>Landscape &amp; Townscape .</b></p>	<p><b>(H)</b> Objective 8. (Landscape and Townscape) To enhance and protect current landscape features of value on the site and create quality urban environment</p>	<p>33. To facilitate views of the Dublin Mountains. 34. To promote the principles of good urban design, providing key frontage, landmark structures, integrated streets, squares and parks 35. To improve the visual, recreational and amenity value of the Grand Canal, its</p>	<p>South Dublin County Council to enforce proposed SDZ/LAP planning framework to ensure compliance. Monitoring includes enforcing the locations and recommendations noted by any Landscape Masterplan for Clonburris. Additional monitoring relating to the</p>

	and public realm on site.	towpaths and adjacent banks.	Grand Canal will be provided by Waterways Ireland & The National Parks and Wildlife Services.
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# **Appendices.**

**Appendix A.**  
***Order designating Clonburris as an SDZ.***

**Order entitled**

**PLANNING AND DEVELOPMENT ACT 2000 (DESIGNATION OF STRATEGIC  
DEVELOPMENT ZONE:  
BALGADDY-CLONBURRIS, SOUTH DUBLIN COUNTY) ORDER 2006**

**Planning and Development Act 2000  
(Designation of Strategic Development Zone: Balgaddy-Clonburris, South Dublin  
County) Order 2006**

The Government pursuant to a proposal by the Minister for the Environment, Heritage and Local Government, being of the opinion that the development specified in Article 4 of this Order is of economic and social importance to the State, in exercise of the powers conferred on them by section 166(1) of the Planning and Development Act 2000 (No. 30 of 2000), hereby order as follows:



1. This Order may be cited as the Planning and Development Act 2000 (Designation of Strategic Development Zone: Balgaddy-Clonburris, South Dublin County) Order 2006.
2. This Order shall come into operation on
3. In this Order  
“Act” means the Planning and Development Act 2000  
  
"Greater Dublin Area" means the County Borough of Dublin and the administrative counties of Dun Laoghaire-Rathdown, Fingal, Kildare, Meath, South Dublin and Wicklow.
4. The area shown as the “designated area” on the map titled “Proposed Strategic Development Zone at Balgaddy-Clonburris, South Dublin County” dated June 2006 and attached to this Order is designated as a site for the establishment of a strategic development zone in accordance with the provisions of Part IX of the Act for residential development and the provision of schools and other educational facilities, commercial activities, including employment office, hotel, leisure and retail facilities, rail infrastructure, emergency services and the provision of community facilities as referred to in Part III of the First Schedule to the Act, including health and childcare services.
5. The site referred to in Article 4 has been designated for the establishment of a strategic development zone for the development specified in that Article, taking into consideration the deficiency in the supply of housing nationally and in the Greater Dublin Area particularly, the number and phasing of the housing units which would be delivered by the inclusion of the lands within a strategic development zone, the potential for comprehensive planning and development of the site due to its scale and configuration, the efficient use of public investment in infrastructural facilities, including public transport, water, waste water and roads and that development of the site will help give effect to the policies in the Regional Planning Guidelines for the Greater Dublin Area 2004-2016.
6. The development agency specified for the purposes of section 168 of the Act is South Dublin County Council.

GIVEN under the Official Seal  
of the Government, this  
day of            2006.

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## **Appendix B**

***Cover letter & Scoping Notification Document, sent to the Environmental Protection Agency, Department of the Environment, Heritage and Local Government, and the Department of the Communications, Marine and Natural Resources.***

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

25<sup>th</sup> October 2006.

**Re: Scoping document for Strategic Environmental Assessment of proposed plans for Balgaddy/Clonburris.**

Dear Tadhg,

South Dublin County Council is currently preparing a Draft Strategic Development Zone Planning Scheme and Draft Local Area Plan for an area of approximately 250 hectares in size in the Balgaddy/Clonburris area of the county.

Pursuant to S179B(1) of the Planning & Development Regulations 2004, notice is hereby given of the intention to prepare an Environmental Report relating to the likely significant effects on the environment of implementing the Strategic Development Zone Planning Scheme and Local Area Plan at Balgaddy/Clonburris, Clondalkin, Dublin 22.

I enclose a scoping document regarding the Strategic Environmental Assessment to be prepared for the lands.

The Planning & Development (Strategic Environmental Assessment) Regulations 2004 make mention of the circumstances under which a proposed development must be accompanied by an Environmental Report.

In the case of a Strategic Development Zone , the legislation automatically requires the provision of an Environmental Report in conjunction with the Draft Planning Scheme. In the case of a Local Area Plan, the legislation requires that where the population of the study area exceeds 10,000 persons and/or where the Local Area Plan is likely to have significant effects on the environment, an SEA of the Plan is deemed mandatory.

The scoping document has been compiled in accordance with the Guidelines for Regional Authorities and Planning Authorities on the Implementation of SEA Directive (2001/42/EC).

In accordance with S.179B.2(c) of the Planning and Development Regulations 2004, the period for receipt of comments regarding the scope and level of detail to be included in the environmental report from the Environmental Protection Agency is 4 weeks from the date of notice.

Comments relating to the scope and level of detail of the information to be included in the environmental report should be made before 4.00pm on the 21<sup>st</sup> of November 2006 to:-

David Murray  
Planning Department.  
South Dublin County Council.  
County Hall,  
Tallaght,

**Dublin 24.**

## 1.0 Introduction

This document is a formal scoping notification for the Strategic Environmental Assessment to be prepared with the Balgaddy/Clonburris Strategic Development Zone (SDZ) and Local Area Plan (LAP). The Planning & Development (Strategic Environmental Assessment) Regulations 2004 make mention of the circumstances under which a proposed development must be accompanied by an Environmental Report.

In the case of a Strategic Development Zone, the legislation automatically requires the provision of an Environmental Report in conjunction with the Draft Planning Scheme.

In the case of a Local Area Plan, the legislation requires that where the population of the study area exceeds 10,000 persons and/or where the Local Area Plan is likely to have significant effects on the environment, an SEA of the Plan is deemed mandatory.

The lands outlined below (Fig. 1) were zoned for:-

*Objective A:-To protect and/or improve Residential Amenity;*

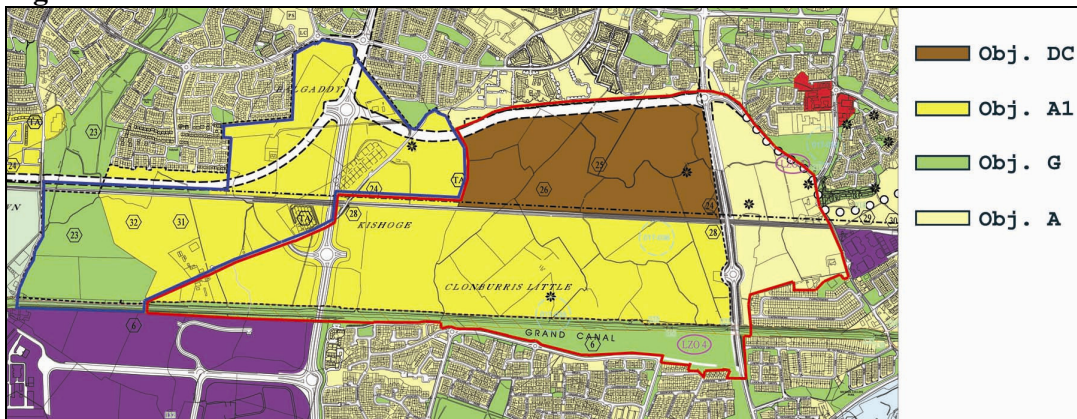
*Objective A1:-To provide for new residential communities in accordance with Approved Area Plans;*

*Objective DC:- To protect, provide for and/or improve District Centre facilities;*

*Objective G:- To protect and improve High Amenity Areas;*

in the South Dublin County Council Development Plan 2004-2010. The lands represent one of the most significant parcels of development land within the South Dublin administrative area.

**Figure 1.**



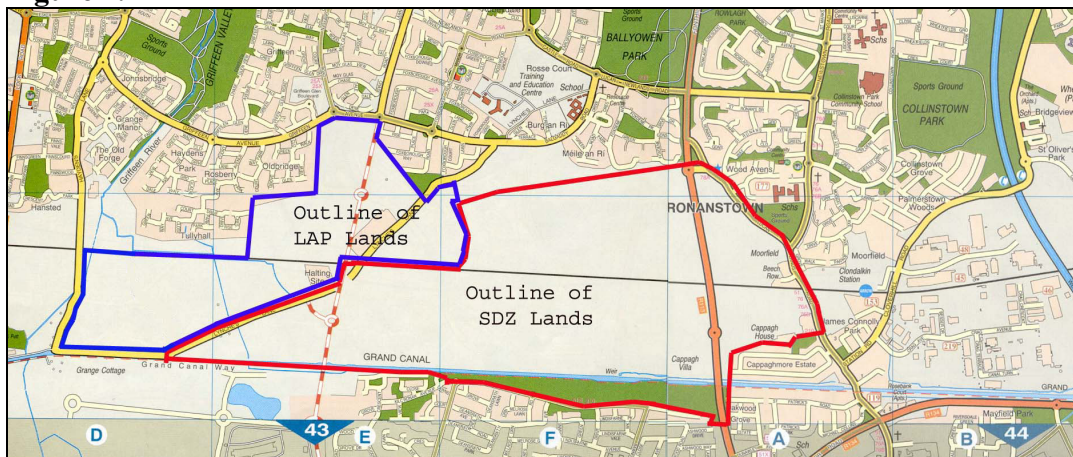
Residential Objective A1, under which substantial sections of the lands are zoned, approves residential development in accordance with approved area plans. This zoning requires the creation of a detailed area plan outlining the future development strategy of the lands prior to any development taking place.

Initially South Dublin County Council intended to produce a Local Area Plan for the overall outlined land area as per Specific Local Objective 26, however a re-evaluation of the site took place in May-June 2005.

The re-evaluation took place in light of the scale and complexity of the overall site, coupled with the potential created by the Dublin-Kildare Route Project and other potential transport issues. The outcome of the re-evaluation was a decision to seek Strategic Development Zone designation for the lands. A report to this effect was forwarded to the Department of the Environment, Heritage and Local Government in September 2005. This report was endorsed by the Department of the Environment, Heritage and Local Government and a Strategic Development Zone on part of the lands was designated by the Minister for the Environment on the 31<sup>st</sup> July 2006 (see fig. 2).

The outcome of the process is that South Dublin County Council intend to prepare a Strategic Development Zone Planning Scheme for part of the lands and a Local Area Plan for the remaining section. Refer to the plan below for the boundaries of the Local Area Plan and Strategic Development Zone schemes.

**Figure 2.**



As part of the preparation of the Balgaddy/Clonburriss Strategic Development Zone and Local Area Plan., South Dublin County Council intend preparing a combined Environmental Report of the likely significant effects on the environment of implementing both the Strategic Development Zone Planning Scheme and the LAP. In view of the co-location of the areas covered by both plans, this approach is considered appropriate.

The Environmental Report is required to include information that may be reasonably required, taking into account-

- (i) current knowledge and methods of assessment
- (ii) the contents and level of detail of the plan,
- (iii) the stage of the plan in the decision making process, and

- (iv) the extent to which certain matters are more appropriately assessed at different levels in the decision-making process in order to avoid duplication of environmental assessment.

A submission or observation in relation to the scope and level of detail of information to be included in the environmental report may be made to South Dublin County Council (David Murray or Fionnuala Lennon, Planning Department, South Dublin County Council, Tallaght, Dublin 24) on or before the 28th of November 2006.

## **2.0 Background and Process.**

### **2.1 Site Context.**

The lands at Balgaddy/Clonburris are located in a strategic position in South Dublin, at the intersection of major road and public transport infrastructure. The site is located to the north and south of the Dublin-Kildare railway line, which will shortly be upgraded to accommodate 4 no. tracks, allowing for an increase in the amount of commuter trains using the railway line.

The eastern section of the site is emerging as part of the most suitable route for the orbital metro. The orbital metro will intersect with several radial high quality public transport routes around Dublin, including potentially, the railway line at Fonthill Road, providing a very connected public transport network.

The lands are also connected to the wider area of South Dublin through high quality road infrastructure. The Fonthill Road is located in the eastern section of the lands, while the Outer Ring Road is located to the west. The Fonthill Link Road is under construction to the north. The Grand Canal is located along the southern section of the lands.

The surrounding areas are comprised of low density housing, characterised by large areas of green space. A section of the lands to the south of the Grand Canal, is an area of green space associated with the nearby Bawnogue/Deansrath Residential Area. The Council has prepared a plan for the Grand Canal Park which includes these lands.

The lands subject of the SDZ and LAP are currently used for agriculture or are left fallow. There are a limited amount of farmsteads within the subject area, along with 2 no. Traveller halting sites.

The roads, railway line and canal all provide substantial barriers to the integrated development of the lands with the surrounding neighbourhoods.

### **2.2 Development Plan Context.**

In December 2004 a new County Development Plan was adopted by the Elected Members (Councillors) for South Dublin County Council. The Development Plan zoned lands at Balgaddy as

*Objective DC.* ‘District Centre’ (Level 3 centre within the South Dublin County Council retail hierarchy).

*Objective A1.* The lands to the south and west of the District Centre lands are zoned for new residential development in accordance with an approved Action Area Plan.

*Objective A.* Lands to the east of Fonthill Road are zoned for the protection or improvement of residential development.

*Objective G.* Green space lands to the south of the Grand Canal and the southern section of Griffeen Valley Park.

The distribution of these zoning objectives is shown in figure 1, page 1.

## 2.2 Additional Relevant Objectives of the Development Plan.

The South Dublin County Development Plan 2004-2010 contains the following objectives which are relevant to Balgaddy/Clonburris.

<b>Policy Area</b>	<b>Specific Objective/Policy</b>	<b>S.D.Z. Area.</b>	<b>L.A.P Area.</b>
<b>Land Use Zoning.</b>	Objective A1. New Residential	✓	✓
	Objective A. Improve existing residential areas.	✓	✗
	Objective D.C. Provide District Centre Uses.	✓	✗
	Objective G. Open Space.	✓	✓
	S.10.3 LZO4. Limited residential development to south of Canal.	✓	✗
	Table 13.2. Provide Traveller accommodation at:- Kishoge & Lynch's Lane, Clondalkin.	✗	✓
<b>Heuston-Kildare Railway Corridor Development.</b>			
	S.1.6.3i High Density Development.	✓	✓
<b>Heritage &amp; Amenity.</b>		✓	✓
	S.1.6.3ii Grand Canal as amenity park.	✓	✓
	S.9.4.4i Protection of Proposed NHA (Grand Canal)	✓	✓
	S.9.4.7.ii. Protection of trees identified in Development Plan.	✓	✓
	S.9.4.11 Policy LHA 13. Protection of Grand Canal.	✓	✓
	S.12.12.8 Conservation of natural heritage within proposed NHA	✓	✓
<b>Roads Objectives.</b>			
	S.13.5.4 Maintain right-of-way along Grand Canal.	✓	✓
	Table 13.6. 6 year objective. Adamstown Roundabout ORR to Fonthill Link Road.	✓	✓



	Table 13.6. 6 year objective. Adamstown Roundabout ORR to the N4	✗	✓
	Table 13.6. 6 year objective. Adamstown Link Road from ORR to Strategic Development Zone lands.	✗	✓
	Table 13.7. Long Term Objective. Fonthill-Cloverhill distributor road.	✓	✗
<b>Protected Monuments and Structures.</b>			
	Recorded monuments DU017-035/DU017-036	✓	✗
	Protected Structure No. 122. Omer Lock House.	✓	✗
	Protected Structure No. 123. 10th Lock.	✓	✗
	Protected Structure No. 128. 11th Lock.	✓	✗
<b>Specific Local Objectives</b>			
	SLO6 River Liffey & Grand Canal amenity strategy	✓	✓
	SLO24 New railway stations at Kishoge and Fonthill	✓	✓
	SLO25 Town Centre zoning uses to apply to Balgaddy District Centre.	✓	✓
	SLO26 Balgaddy and Clonburris to be included in an overall Local Area Plan.	✓	✓
	SLO28 Provide sustainable rail-based development at Balgaddy-Clonburris.	✓	✓
	SLO31 Develop lands at Lynch's Lane for a mix of housing types and tenures.	✗	✓
	SLO32 Prior to development, replace allotments site at Lynch's Lane with alternative site.	✗	✓
<b>Other relevant areas of the Development Plan.</b>			
	Chapter 5 relating to Town, District and Local Centres.	✓	✓
	Chapter 6 relating to Retail Development.	✓	✓
	Chapter 11 relating to Urban Design.	✓	✓
	Chapter 12 relating to Development Control.	✓	✓

### 2.3.1 Brief History.

The Dublin County Development Plan 1973 rezoned the lands from agricultural uses to agricultural, residential, industrial and town centre uses with areas of open space designated between the railway line and the canal. These zonings were maintained until the 1998 South Dublin County Council Development Plan. The 1998 Development Plan rezoned the Town Centre area as District Centre, while the industrially zoned land to the west was rezoned to residential. The 2004 Development Plan rezoned the lands between the railway line and the Grand Canal from opens space to residential uses. The 2004

Development Plan included an objective that residential development on the overall lands must be accompanied by a LAP.

Several substantial planning applications have been lodged to the subject lands over the previous 2 decades. These include:-

S92A/1663. New stadium/arena on a site of 13.3 hectares to include a playing/performance surface of 11,701sq.m and 34,133 sq.m of floor area. Seating capacity is for 40 000 approx. people. Car parking is provided for 2 000 cars and 125 coaches. Access is proposed from proposed Fonthill Road extension. Permission granted.

S92A/1669. Outline permission for a major Town Centre Development for the Clondalkin/Lucan area of circa 21 000sq.m. retail shopping and restaurants, with additional residential, commercial and community uses. Outline permission granted.

S97A/0130. National rail-based distribution park on a 76.5 ha (189 acre) site. To include warehousing and break-bulk activities, a passenger railway station and rail freight terminus utilising the existing rail link to Dublin Port. Application withdrawn.

S99A/0209. Development comprising improvement of existing roads at Balgaddy to serve a proposed major town centre. Application lapsed.

S99A/0370. Phase 1 of an overall residential development consisting of 208 No. Houses at Cappagh House, Cappagh. Application lapsed.

SD02A/0296. 130,190sq.m of mixed use retail, residential, recreational development The application is accompanied by an Environmental Impact Statement. Refused permission.

The lands currently are undeveloped.

It was determined by South Dublin County Council that a Strategic Development Zone is the most appropriate vehicle for delivering the proper and sustainable development of this high profile parcel of land. The opportunities provided by the proposed public transport links on the site are of a national strategic nature, justifying a high density of development. The provision of such higher densities also requires the provision of suitable facilities in tandem with residential development. A SDZ is the most appropriate way to manage the delivery of such a project. A Strategic Development Zone of part of the lands was designated by the Minister for the Environment on the 31<sup>st</sup> July 2006. Section 179 of the Planning and Development Regulations 2004 (as amended) requires that an environmental report shall accompany a Draft SDZ Planning Scheme.

## **2.4 Potential Balgaddy/Clonburris Development Forms.**

Although the components of the SDZ/LAP have yet to be fully determined it is envisaged for evaluation purposes that the following type of development might occur within the designated lands, as permitted under the Strategic Development Zone Order:

- Development within the Strategic Development Zone will include residential development and the provision of schools and other educational facilities, commercial activities, including employment office, hotel, leisure and retail facilities, rail infrastructure, emergency services and the provision of community facilities as referred to in Part III of the First Schedule to the Planning & Development Act 2000, including health and childcare services.
- Development within the LAP is likely to include residential development, commercial, educational facilities, rail infrastructure and community facilities similar to those contained within the Strategic Development Zone.

### **3.0 The Process.**

#### **3.1 Pre-Planning Consultation.**

As part of the preparation of the SDZ/LAP master plan South Dublin County Council has undertaken an extensive process of pre-plan public consultation. A copy of the consultation report is included as an appendix to this scoping document. Further opportunity for submissions and observations will be provided at later stages in the SDZ/LAP adoption process. The opportunities for further consultation are dealt with in section 4.0 of this scoping document.

##### **3.1.1 Statutory context.**

The statutory context will take into account the dual legislative framework required for the adoption of a LAP and SDZ for the subject lands.

##### **Local Area Plan.**

Section 19 of the Planning and Development Act 2000, provides that a Local Area Plan may be prepared in respect of any area which a Planning Authority considers suitable; and in particular for areas which require economic, physical and social renewal; and for areas likely to be the subject of large-scale development within the lifetime of a Development Plan.

The Balgaddy/Clonburriss LAP will be prepared in accordance with the requirements of the Planning and Development Act 2000 and the Planning and Development (Amendment) Act 2002.

The Planning and Development Act, 2000, as amended, sets out the matters that must be included in a Local Area Plan. Consideration can only be given to matters that relate to the proper planning and sustainable development of the area. According to the Act, the Plan must be consistent with the objectives of the County Development Plan. The Local Area Plan must consist of a written statement and a plan or plans, which may include:

- Objectives for the zoning of land, or

- Other objectives for the proper planning sustainable development of the area including details on community facilities and amenities and on standards for the design of developments and structures.

The Draft LAP when prepared must be read in conjunction with the South Dublin County Development Plan 2004-2010. Policies and objectives within the Development Plan also apply to the areas outlined in figure 2, unless the LAP and makes specific provisions that alter or supplement those policies and objectives in the Development Plan.

### **Strategic Development Zone.**

Section 168 of the Planning and Development Act 2000, provides that a Planning Scheme may be prepared in respect of any area which a Planning Authority has designated as a SDZ under section 166 of the Act. The development of lands which are designated as SDZs are considered to be of strategic importance to the economic or social importance to the State and the SDZ designation is designed to facilitate such development.

South Dublin County Council will go through a process of public consultation, during the adoption of the Strategic Development Zone Planning Scheme. After adoption by the Council, persons who made submissions during the public consultation phase may appeal the Planning Scheme to An Bord Pleanala.

In considering whether to approve a Draft Planning Scheme, An Bord Pleanala must consider:-

- The proper planning and sustainable development of the area;
- The provisions of the Development Plan;
- The provisions of the Housing Strategy;
- The provisions of any SAAO;
- The conservation and preservation of any European Site.

### **3.1.2 Relationship with other plans.**

Due regard must be paid to a broad range of strategy and local planning policy documents which have been issued by the Department of Environment, Heritage and Local Government in recent years, these include the following:

1. Architectural Heritage Protection, Guidelines for Planning Authorities (2004)
2. Childcare Facilities, Guidelines for Planning Authorities (2001).
3. Landscape and Landscape Assessment (2000).
4. National Anti-Poverty Strategy (1997)
5. National Heritage Plan (2002).
6. National Bio-diversity Plan (2002).
7. Sustainable Development-A Strategy for Ireland (1997).
8. The National Development Plan 2000-2006.
9. The National Spatial Strategy 2002-2020.
10. Residential Density Guidelines (2000).
11. The Strategy Environmental Assessment Guidelines (2004).

## 12. Towards Sustainable Local Communities: Guidelines on Local Agenda 21 (2001).

Cognisance must also be taken of the “Regional Planning Guidelines for the Greater Dublin Area 2002-2016” issued by the Dublin Regional Authority and the “Retail Planning Strategy for the Greater Dublin Area” (2001). Consideration has been taken of the Dublin Transportation Office policy document “Platform for Change Strategy 2000-2010” and the Government’s latest transportation plan “Transport 21” in the process of drafting the SDZ Planning Scheme and the LAP.

### **3.2 Strategic Environmental Assessment.**

Strategic Environmental Assessment (SEA) is a systematic method for assessing the likely effects on the environment of plans and programmes and for the incorporation of environmental considerations into their preparation. The EU Directive 2001/42/EC on Strategic Environmental Assessment was passed into Irish law by means of the Planning and Development Strategic Environmental Assessment Regulations 2004.

In the case of a Strategic Development Zone, the legislation automatically requires the provision of an Environmental Report in conjunction with the Draft Planning Scheme.

In the case of a Local Area Plan, the legislation requires that where the population of the study area exceeds 10,000 persons and/or where the Local Area Plan is likely to have significant effects on the environment, an SEA of the Plan is deemed mandatory. In the context of the Kishoge LAP, a combination of factors such as the designation of the lands adjacent to the LAP as a SDZ, and the strategic location of the LAP lands to the SDZ lands merit the creation of a single Environmental report which considers the overall cumulative effects of the development of the total land area.

The Planning Department considers that a combined SEA of the LAP and SDZ is in the interests of the proper planning and sustainable development of the area.

#### **3.2.1 Baseline Data:**

Sources of baseline data will include information from statutory agencies, internal departments within the Council, the internet, local publications, planning applications and EIS relating to major roads and infrastructure improvement schemes affecting adjacent roads and lands. Traffic modelling for the subject lands will be carried out by traffic consultants, in conjunction with the DTO city-wide Saturn Model.

It is proposed that the following issues will be addressed in the Baseline Study; biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above factors.

### **3.2.3 Major Issues to be Addressed.**

The development of the lands will include short, medium and long term effects as well as cumulative, temporary, permanent, positive and negative effects.

#### **Transport and Traffic.**

The lands are located in an area of South Dublin which is heavily impacted by a lack of access to good public transport. This has led to high dependence on car based transport. The proper and sustainable development of the lands hinges on the simultaneous provision of public transport alongside other development.

The development of the site will depend on such provision and phasing of public transport infrastructure. Without high quality public transport, the subject lands will not be capable of accommodating development. This is due to the pressures on the road network that development dependent on private transport would create.

Transport and traffic issues will also have impacts on environmental factors such as air, noise, micro-climate, socio-economic issues, population, townscape, visual impacts and others.

The provision of high quality public transport through the subject lands, serving the identified area and hinterland is of utmost importance for the development of the lands. The provision of public transport will also be dealt with in the section of the SEA relating to human beings and population.

#### **Flora and Fauna.**

The subject lands contain a number of species which are protected under the EU Habitats Directive. These species include:-

- Lapwing;
- White Clawed Crayfish;
- Frog.

The habitats of these species include the Grand Canal and associated water courses and ditches, along with seasonally flooding fields. The levels of development proposed may significantly impact on these habitats. The subject lands are substantially greenfield in nature. The development of the lands will impact on the Greenfield setting and habitats.

#### **General Infrastructural Issues.**

The issues noted here will need to be addressed in the plan documents.

Sustainability;

- To what extent can the development be carried out in such a way as to take advantage of new technologies which will improve efficiency in the provision of infrastructure over the shorter and longer term?
- Sustainability and how this might affect infrastructure provision and development form.

- Investigating in detail how infrastructure can be developed and provided in the most sustainable manner.
- Facilitating surface water drainage and SUDS, drinking water and the use of grey water.

Networks;

- Telecoms, electricity and gas networks.
- Combined heat and power?

Capacity;

- Is there water and sewerage capacity to serve the site in the short and long term?
- The phasing of such networks and systems and how such infrastructure can be delivered to function in tandem with new communities.
- The development of road networks in tandem with public transport to alleviate road capacity issues.

### **Sustainability.**

It is essential to ensure that the SDZ & LAP is compatible with local and national policies on sustainability. The provision of sustainable development interacts with traffic, infrastructure and various habitat areas. It is also proposed that the lands subject of the SDZ and LAP will be developed in as sustainable a way as possible with regard to issues of sustainable drainage, construction, energy, water usage and biodiversity.

### **Socio-Economic and Impacts on Population and Human Beings.**

The above issues are considered to be related. Depending on how this site is developed, there are potentially major positive impacts for the local population including provision of additional employment, social and leisure facilities but also in terms of providing a more attractive environment in which to live and work. The development of lands such as those in the SDZ and LAP can raise the overall quality of life of existing and potential residents and users. The manner in which the development is phased can alleviate nuisance and provide required infrastructure earlier.

Negative issues affecting the above can include nuisance, noise, and traffic/construction traffic.

### **Landscape and Townscape.**

The subject lands are currently occupied by Greenfield and low intensity uses. The existing landscape will be profoundly affected by the development of the lands.

Interactions of the proposed urban form and landscape with the surrounding form and landscape will be examined, along with interaction with other issues such as Cultural heritage, architectural and archaeological heritage,

### **Other Issues Related to the above will include the following:**

- Biodiversity,
- Soil,



- Water,
- Air,
- Climactic factors,
- Material assets
- Cultural heritage, architectural and archaeological heritage,
- Interrelationship between the above factors.

### **3.3. Draft SEA Structure.**

The SEA report will contain the following elements:-

1. Non-technical summary.
2. Introduction.
3. Sea methodology.
4. List of Consultees and Stakeholders.
5. Summary of the elements of the plan and any alternatives.
6. Outcomes that may result form the plan.
7. Relationship with other relevant plans and programmes.
8. Description of the baseline environment, including what would happen under the do-nothing or do-minimum scenarios.
9. Environmental indicators, objectives and targets.
10. Prediction and evaluation of impacts of the plan (including alternatives).
11. Incorporation of mitigation measures and assessment results into the plan.
12. Proposals for monitoring of implementation of the plan.
13. Summary of findings and recommendation.
14. Notifier regarding comments or observations on the SEA.

## 4.0 The Next Stage.

4.1 Below is set out a brief summary of the time line for preparation of Balgaddy/Clonburriss SDZ Planning Scheme & LAP. At this time, the Council with assistance from consultants is at the stage of completing gathering of baseline information & starting the master planning process. The legislative process for approving the Planning Scheme and LAP varies as the right of appeal to An Bord Pleanala against the draft Planning Scheme is an integral part of the process.

<b>Timeline</b>	<b>SDZ Planning Scheme</b>	<b>Local Area Plan</b>
<b>Preparation of draft plans</b>		
April – July 2006	Pre-plan consultation with public & stakeholders	Pre-plan consultation with public & stakeholders
July 2006	SDZ designated	
July - October 2006	Baseline information gathered	Pre-plan consultation report prepared
October - December 2006	Draft plan & SEA prepared	Draft plan & SEA prepared
<b>Following preparation of draft plans</b>		
Weeks 1 - 6	Draft Planning Scheme & SEA put on display & submissions invited from public, stakeholders & relevant authorities	Draft LAP & SEA put on display & submissions invited from public, stakeholders & relevant authorities
Weeks 6 - 12	Manager's Report prepared	Manager's Report prepared
Week 12	Manager's Report given to elected members for consideration.	Manager's Report given to elected members for consideration.
Week 18	Planning Scheme deemed adopted	Member's decision on LAP made – may reflect timescale for Planning Scheme process.
Week 22	End of 4 week period for appeals to be lodged with An Bord Pleanala. If no appeal lodged, Planning Scheme takes effect.	
Week 36	Decision expected if appeal is lodged with An Bord Pleanala,	

## 5.0 Over-Arching Structure and Objectives of the Plans.

### 5.1.1 Objectives of the SDZ Planning Scheme & Local Area Plan.

The objectives for the development of the lands within both the SDZ Planning Scheme area and the LAP area are the same given that it is intended that both areas of land will develop in tandem, utilising the same central development concept.

The key aim is to create sustainable communities in a holistic and integrated way utilising best practice in the planning and design of new urban communities. Key sustainable objectives to achieve this include:

- **Urban Design:** To create an urban place with a strong sense of identity that is attractive and desirable as well as safe and secure.
- **Land Use:** To require a mix of land uses to provide amenities, facilities, services and employment and enable the community to work, shop and recreate locally;
- **Social inclusion:** To facilitate a mix of house types, sizes and tenure options that allow all sections of society to remain part of the community throughout the life cycle.
- **Accessibility:** To provide alternatives to the private car in the form of a new railway station and transport interchange, additional rail capacity, dedicated bus routes and a continuous network of walking and cycling links;
- **Ecology and Landscape:** To preserve ecosystems and landscape by incorporating distinct habitats and established landscape features into a network of parks and open spaces;
- **Conservation** To protect and ensure the appropriate use of historic structures, built heritage and archaeological features;
- **Carbon Emissions and Energy Efficiency:** To minimise energy usage through innovations in sustainability, accessibility, block layout, building design, use of materials and adaptability for built development and supporting infrastructure;
- **Phased Delivery:** To ensure that development occurs at a pace whereby it is supported by all necessary infrastructure, services, amenities and facilities;
- **Connecting communities:** To ensure that the new development is fully accessible to existing communities in the area.

### 5.1.2 General Structure of the Plans.

- The structure of the LAP will broadly deal with the following areas:

Section 1: Introduction.

Section 2: The Need for Change/Setting the Context.

Section 3: The Vision for Development.

Section 4: Strategic Framework, policies and standards.

Section 5: Detailed guidance for development areas within the plans.  
Section 6: Phasing and Implementation.

- The Planning Scheme will be generally be comprised of five parts.

Part 1 will introduce the concept and explain the background to the Balgaddy/Clonburris Strategic Development Zone process.

Part 2 will present the overall strategy for development of Balgaddy/Clonburris, including the type, extent and design of development and proposals for transportation, services and amenities.

Part 3 will detail each of the character areas that the Balgaddy/Conburris SDZ will be sub-divided into for the purposes of the Planning Scheme.

Part 4 of the Planning Scheme will set out a phasing plan for the delivery of infrastructure in tandem with the roll-out of development.

Part 5 will comprise an Environmental Assessment of the Scheme and will include proposals relating to the minimisation of adverse effects on the environment.