

Environmental Report



For the Clongriffin - Belmayne Local Area Plan 2012 - 2018

**Prepared by
Planning and Economic Development
Dublin City Council**

December 2012

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SEA

NON-TECHNICAL

SUMMARY

1.0 SEA Executive Summary

1.1 Introduction

This is the Non Technical Summary of the Environmental Report of the Draft Clongriffin-Belmayne (North Fringe) Local Area Plan

The Strategic Environmental Assessment was carried out to comply with the provisions of the SEA Directive (Directive 2001/42/EC) and those regulations transposing the Directive into Irish Law.

The Environmental Report is at the heart of the SEA process. It is a key mechanism in promoting sustainable development, in raising awareness of the significant environmental issues and in ensuring that such issues are properly addressed.

This Environmental Report is not the SEA, rather it documents the SEA process and is the key consultation document in the SEA process and facilitates interested parties to comment on the environmental issues associated with the Draft LAP.

The SEA needs to be fully integrated with the various stages of the local area plan preparation process in order to ensure that the environmental implications do not impact negatively upon the environment as a result of changes to policy.

The Environmental Report which follows has guided the preparation of objectives, policies and development scenarios for the Local Area Plans with an ultimate goal of achieving sustainable development in the LAP area without causing adverse harm to the environment.

1.2 SEA Screening

The Planning Authority undertook a screening of the proposed LAP for the purposes of determining whether an SEA was required and documented this in a screening report. It was determined that an SEA was required.

1.3 SEA Scoping

Scoping is undertaken to ensure that the relevant environmental issues are identified

allowing them to be addressed appropriately in the Environmental Report. A Scoping Issues Paper was prepared by the planning authority and initial consultation was carried out in April 2012. Written feedback was received from the environmental authorities including the Environmental Protection Agency, Department of Communications, Energy and Natural Resources and Inland Fishers Ireland. Issues identified included:

- Promote the achievement of objectives set out by the Eastern River Basin Management Plan and associated programme of measures.
- Measure the current water quality status of water bodies within the LAP area (the River Mayne) and qualify the status to be achieved by 2015 in any receiving waters.
- The River Mayne may have viability for a salmonid reintroduction programme. Objectives to address natural heritage, ecological connectivity and enhanced bio-diversity should be included.
- Ensure that development is phased where there is sufficient wastewater treatment capacity.
- Provide for riparian corridors, ensure appropriate buffer zones between natural habitats and residential zones and provide of buffers at least 10 meters wide between developments and the water edge.

The issues raised at the scoping stage were taken into consideration in the preparation of the Environmental Report.

1.4 Vision and Goals of the Draft Clongriffin-Belmayne LAP

This area was formerly the subject of a non statutory North Fringe Action Area Plan (prepared in 2000) which guided the sustainable development patterns for a new mixed use urban district at the northern fringe of Dublin City Council adjoining the boundary with Fingal County Council. The area extends to over 176 ha is considered of strategic value with close proximity to Dublin Airport and amenities of the coast. The new district would integrate high quality public transport services (new rail and bus services) with mixed uses and promote higher densities adjacent to public transport facilities. Integration of recreation and the environment (a new Fr Collins Park and linear park along the River

Mayne connecting with Baldoyle Estuary) were also central features for the new district. Large planning applications were permitted on site and construction commenced. Significant infrastructure projects were complete (including a new rail station) and new residential and mixed use developments at Northern Cross, Belmayne and Clongriffin were constructed. However the property market and national economy declined significantly before development and infrastructure was completed.

The area for the LAP is an important strategic location for future development and growth for Dublin City and designated a Key Developing Area within the Core Strategy under the Dublin City Development Plan 2011-2017.

The context for this local area plan is to provide effective guidance for the completion of developments previously permitted in the local area over the last ten years, assist the completion of important social, physical and green infrastructure to service existing communities, address the issues of vacancy and interim proposals on lands not likely to be completed with development in the medium to long term and achieve successful integration and connection of the LAP area with the wider neighbourhood.

A special focus for the LAP will be the integration and successful connection between communities adjacent to the LAP area including the Clarehall and Donaghmeade neighbourhoods in Dublin City Council and the Baldoyle-Stapolin neighbourhoods in Fingal County Council.

Objectives under the LAP will promote positive integration between communities, improved connections (walking and cycling routes in particular) and improved access between residential areas and locations of community uses, retail services, employment and public transport provision.

1.5 Relationship of the Plan with Other Relevant Plans and Programmes.

The Draft LAP and accompanying Environmental Report fit into a hierarchy of strategic legislation, plans and policy documents including national, regional and city planning policy. The LAP area is a key future growth zone in the settlement strategy for Dublin City Council to accommodate residential and mixed uses close to public transport infrastructure (identified in the Core Strategy for the city). The LAP is also prepared in the context of LAP's for developing lands in the Fingal area, in particular the Baldoyle-Stapolin LAP east of the rail line. Integration between communities of both LAP areas is an important object of both councils.

1.6 Summary of Baseline Environment/Existing Environmental Problems

Population

The LAP boundary and related context takes into account the Electoral Divisions (ED) of Grange A, Grange B and Priorswood C. The population of these ED's was recorded as 13,477 persons in the 2006 Census. Grange B alone recorded a growth of 34% between the census period 2002-2006 in contrast with a decline of 3% and 2% for Grange B and Priorswood C respectively.

The same area is recorded as 18,025 persons in the preliminary Census 2011 figures. It is notable that each ED in the study area recorded significant growth over the period 2006-2011. Grange A and Priorswood C both recorded a 27% population increase in contrast to a decline over the previous census period. Grange B, the location of Clongriffin and Beaupark, recorded a significant population increase of 58.8%.

The population growth occurs at the same timeframe as first phase developments were completed and occupied in the LAP area.

The human health impacts of relevance to SEA are those which arise as a result of interaction with other environmental receptors e.g. an over-concentration of pollutants in the air can have severe impacts on human health, excessive noise levels can seriously impact

upon quality of life, a safe and constant supply of good quality drinking water is a basic component of a liveable area, the conservation of biodiversity is intrinsic to well-being, food production etc.

Specific information on health of the population is not readily available at the local level. The Department of Health have published key trend statistics for 2011 at the national level. These trends are can be applied to the population at the local level

The following broad range of issues has been identified for population:

- The need to nurture a, mixed-use neighbourhood at sustainable densities that encourages the efficient use of urban land in the plan area.
- Issues with the availability of adequate infrastructure e.g. transport drainage, water wastewater infrastructure and capacity of the existing electricity network to serve the proposed increase in population.
- Possible transboundary impacts with future development in the adjoining local authority area of Fingal County Council (cumulative impacts).

Biodiversity

Both within and adjoining the Clongriffin-Belmayne Area, there are many different habitats including rural, urban, coastal and marine habitats. The River Mayne is the only watercourse which traverses the plan area and it connects with the Baldoyle Estuary.

Baldoyle Estuary (approximately 0.9km distant to the east of the LAP boundary) is rich in species and biodiversity. It is a designated Special Area of Conservation, Special Protection Area, proposed Natural Heritage Area, a Statutory Nature Reserve and a Ramsar (wetland preservation) site.

The estuary is a positive asset of the location context for the study area.

As part of the local area plan preparation an assessment under Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Fauna

(commonly referred to as “The Appropriate Assessment) was undertaken.

The River Mayne is an important surface water body in the area in terms of its biodiversity value. The protection of the riparian corridor and creation of a buffer zone from development (by the way of a linear park) was an important feature of the original permitted developments for this area.

Father Collins Park (approximately 22ha) is an important public open space and recreational asset in the centre of the LAP area. It is characterised by sports, recreation and leisure facilities it is also recognised for its biodiversity. The park contains a species rich ecosystem that includes hedgerows and wetlands.

Connections between Fr Collins Park to other locations of recreation and natural habitat in the wider area, including public open space and natural amenity areas in Fingal, connected via a greenway along the River Mayne, provides an important opportunity for enhancing recreation, protecting habitats and maximising the value of the local environment as a unique feature of this area.

Both Dublin City Council and Fingal County Council have prepared Biodiversity Action Plans which include measures to help protect and enhance biodiversity in the plan area.

There are many potential threats to the management of biodiversity, flora and fauna within the LAP area given that the area is in a state of transition (comprising of completed and vacant lands). The following broad range of issues identified include the following:

- The need to balance accommodating development, recreational, heritage and biodiversity needs (interaction with population, human health, cultural heritage)
- Protection of designated areas and sites – in this case Baldoyle Bay (although not within the boundary of the plan area)
- Promoting multifunctional use, community access and use of green spaces and links to compliment walking and cycle routes

- Promoting appropriate projects that improve biodiversity value of sites that are likely to remain vacant in the interim period of the LAP
- Co-ordination with Fingal County Council to respond to issues which are prevalent in the adjoining lands and wider environs outside the LAP boundary
- Improving water quality and the enhancement of the biological diversity of the River Mayne

Water

Water Quality

With regard to water quality, the plan area is located within the Eastern River Basin District (ERBD). The river Mayne runs through the plan area discharging into Baldoyle Bay. As detailed in the ERBD, the pressures on the river Mayne which is located in the Santry Mayne Sluice WMU in the ERBD plan have been identified as high nutrients, oxygen demand, low ecological rating and inferior habitat.

An Investigative Monitoring Programme was carried out on the River Mayne during March and April 2012 providing a snapshot of the quality of the water in the river. More data would be required to determine if the current status of the river satisfied the requirements of the Water Framework Directive. However, if the results in the current study are indicative of typical water quality in the river, then it would fail to meet the requirement of good status under the Water Framework Directive for Ammonia, Phosphorus and possible Biochemical Oxygen Demand (BOD).

Water supply for the North Fringe area is part of the Dublin Region Water Supply which is sourced from the Liffey, Dodder and Vartry rivers and is an integrated network covering Dublin City, and adjoining counties.

In order to meet future water demands, Dublin City Council has embarked on a study to determine a new major water source to meet

projected demand in the long-term called the *Water Supply Project for the Dublin Region*. This project is studying the options of either using a desalination process to treat water from Dublin Bay or bringing water from the river Shannon via a new storage reservoir in the midlands. At a local level the existing water supply network for the North Fringe area is served by a 600 and a 450mm watermain which runs from west to east across the northern section of the proposed LAP area.

Wastewater Network

All foul sewage in the Greater Dublin Drainage Region is currently transmitted to the Ringsend Wastewater Treatment Plant (WWTP) for treatment. The capacity of this plant to treat the volume and loading of wastewater created by the growing population is inadequate. Dublin City Council is currently finalising proposals to increase the capacity of the plant with a target completion date of 2015.

The North Fringe LAP is part of the North Fringe Sewer catchment which ultimately discharges to the Regional Waste Water Treatment Plant at Ringsend via the North Fringe Sewer. A major new trunk sewer (the North Fringe Sewer) was constructed in 2004 to serve most of the North Fringe Lands.

The lands within the LAP area are all part of the original design catchment for the North Fringe Sewer, and hence, at a strategic level, there is adequate capacity to facilitate development within this area. Any hydraulic deficiencies in parts of the older foul network are fairly localised and will be addressed as part of the normal development management process.

Flood Risk Management

The River Mayne is the primary river which runs to the north of the LAP lands. As part of the Fingal East Meath Flood Risk Assessment and Management Study, flood maps were produced for the River Mayne for the 1 in a 100 & 1 in 1000 probability of flooding. However, it should be stressed that there are other sources of flooding that are also a risk in

the plan area such as pluvial, groundwater and sewers.

A Flood Risk Assessment (FRA) accompanies the Draft LAP. This assessment aims to identify and communicate to decision-makers and other stakeholders the risk of flooding to land, property and people in the plan area and provide sufficient information to determine whether particular developments are appropriate in the area. It will also set out flood risk zones for the area and ensures that the issue of flood risk is considered, and mitigated against where necessary, in the future development of the area. The general approach will be to avoid development in areas at risk of flooding, and where development in floodplains cannot be avoided, to take a sequential approach to flood risk management based on avoidance, reduction and mitigation of risk.

Environmental Issues Relating to Water

The following broad range of environmental issues relating to water has been identified, which include localised as well as more strategic issues:

- The need to improve the water quality of River Mayne to comply with targets set out in the Eastern River Basin Management Plan and associated programme of measure. The Draft LAP will incorporate a specific policy in this regard
- Require new developments to implement stormwater management systems following the principles of Sustainable Urban Drainage Systems (SUDS)
- The need to conserve water and this to be highlighted in the Draft LAP
- To take into account the provisions of the guidelines on the Planning System and Flood Risk Management

Air and Noise Quality

Air Quality

With regard to air quality, there are a number of monitoring sites around Dublin city that are operated and maintained by the Dublin City Council. The Air Quality Standards Regulations have recently been replaced by the Clean Air for Europe (CAFÉ) Directive 2008 (2008/50/EC) which sets out the requirements for monitoring pollutants and the target values for each pollutant. Dublin's air quality is generally good according to the latest annual report issued by Dublin City Council's Air Quality Monitoring and Noise Control Unit for 2010

The nearest monitoring station to the LAP area is located in Marino (approximately 5km from Clongriffin-Belmayne). There is also a monitoring site in Swords, County Dublin which is approximately 9 km from Clongriffin-Belmayne.

Noise Quality

Dublin City Council has revised and upgraded their 'Noise Maps' for the 2012 base year.

It has been estimated that there has been no significant change in sound emissions from this source over the 2007 base year. The most prominent sound emission sources in the area for this Local Area Action Plan are from the traffic sector.

From the 2012 noise maps it has been found that sound emissions from road sources were the dominant sound source. Although the 2012 maps indicate undesirable sound levels along the Grange Road, there are no residential properties falling within these bands. The residential property most impacted upon from traffic source sound emissions are those properties closest to the Hole in the Wall roundabout.

The area encompassed by the Northern Fringe LAP it is estimated that 58% of the population are exposed to sound levels below the 50\55dB desirable levels.

It is also estimated that 8% of the population in the area are exposed to the undesirable night time value of 55dB, with no one being exposed to levels above a daytime value of 70dB

A broad range of environmental issues relating to air and noise quality has been identified, and includes the following:

- Emissions of air pollutants, particularly from road traffic, remain the main threat to air quality; a modal shift from the private car to high quality public transport is required
- Requirement to reduce greenhouse gas emissions produced by human activities, particularly in transport and construction
- The need to ensure that new residential development is designed and constructed in such a way as to minimise noise disturbances, particularly from traffic, and the need to manage potential noise from other proposed uses such as shops, offices etc (e.g. air conditioning units) and from possible night time entertainment uses
- Recognition of the need to maintain the overall low level of noise where it exists while also reducing the high level of noise at 'noise hot spots' where relevant.

Climate Factors

In May 2008 Dublin City Council adopted a *Climate Change Strategy* that sets ambitious targets for the city toward 2020. In May 2009 the Lord Mayor of Dublin signed the *EU Covenant of Mayors* under which 500 European cities will aim to go beyond the EU 2020 targets of a 20% reduction in GHG's. The city council has also produced a *Sustainable Energy Action Plan 2010-2020* the aim of which is to reduce the city's energy consumption and associated emissions.

A broad range of environmental issues relating to air and noise quality has been identified, and includes the following

- Sustainable Energy Action Plan on Energy to be taken into account
- Reduction of CO2 emissions required
- Greater co-ordination with the adjoining planning authorities in the Greater Dublin Region to respond to these shared regional issues set out

Material Assets

Transport

A big challenge facing the LAP area is completing the new street network between new developments including the wider external road network which includes road projects for both Dublin City Council and Fingal County Council.

Completing the main street boulevard and the north distributor road will connect new residential communities together and give greater permeability for connecting residential areas with new amenities and services. Local connections by walking and cycling are also of great importance, in particular across the rail line linking the communities in the Fingal area with the DCC area.

Strategic transboundary road projects are important to accommodate future development, both for private transport but also public transport (bus) routes, in particular east to west routes from the M1 and airport zone towards Clongriffin.

The R107/R139 (Malahide Road junction) by pass is one of the strategic future projects needed to improve transport and movement in the area.

Public transport is an important infrastructural provision for the developing area and there has been progress in improving public transport to service the new residential communities and commercial developments including the rail station at Clongriffin and QBC bus services. As the area continues to develop, improving public transport services

and importantly access to services will be important.

There is an increasing need and desire to encourage other modes of transport. It is therefore a challenge for the plan to meet the growing demand for travel by sustainable forms of transport other than private car, i.e. by public transport, walking and cycling. In the North Fringe area, private car use is still dominant. 46% of the residents in the North Fringe use car as a means of travel to work, school or college (source Census 2006)

Waste Management

The Waste Management Plan for the Dublin Region 2005 – 2010 sets out the current regional policy framework for Dublin to progress the sustainable management of waste arising in the Region to 2010. The strategy in the Waste Plan aims to promote waste prevention and awareness, deliver maximum recycling, use thermal treatment for the treatment of residual wastes and by doing so minimize the use of landfill disposal.

In the Dublin Region, progress towards achieving the adopted waste targets has been steady. The municipal waste recycling rate is the headline indicator for municipal waste and a target of 45% by 2010 was set in the Regional waste plan 2005 - 2010. A municipal waste recycling rate of 47% was reached in 2010 and represents a 3% increase on the 2009 figure.

A broad range of environmental issues relating to material assets has been identified, and includes the following:

- To seek the completion of the existing road infrastructure network
- A stronger emphasis on sustainable forms of transport such as walking, cycling and public transport
- The need to further integrate transport and land use
- To improve accessibility and maximise the use of public transport in the area

The following broad range of issues has been identified for waste management:

- As the construction industry accounts for a quantity of waste generation, should the plan promote sustainable material use in development by developing relevant policies and standards
- Reuse of materials rather than the use of new materials in development; whether in any development, the planning authority should insist on a proportion of building materials being recycled materials, such as, concrete, brick, stone
- Use of renewable materials and those low embodied energy materials and low toxic materials: whether in any development, the planning authority should insist on a proportion of materials being from renewable sources
- Whether residential and commercial developments are providing sufficient quantity and high quality recycling facilities for waste sorting located conveniently for collection

Landscape

With regard to the landscape of the LAP area, the green areas, the natural heritage and recreational amenities within the plan area have the potential to play a key role in creating and sustaining place.

Aerial views of the plan area depict a landscape in transition between completed and occupied development, complete and vacant development, semi completed works and vacant sites. However, Father Collins Park and a number of other smaller parks are dispersed throughout the plan area along with the River Mayne Linear Park are particular strengths of the local area and are a focal point for the community.

It should also be noted that the area affords views towards Howth, the rural area in Fingal with hedgerows and trees, River Mayne and the railway embankment. This is an important

feature of the existing landscape at present. Potential redevelopment of sites in the area may have the potential to alter these views. It is considered appropriate that a landscape character assessment study of the area be undertaken during the life time of the LAP.

Soil

The existing baseline of data on soils in Dublin City has been developed by the Geological Survey of Ireland (GSI) in cooperation with Dublin City Council. This work has been in progress since 2009 under the SURGE Project and was completed in 2012. The project aims to create a baseline dataset of soil geochemistry in Dublin and assess the extent and nature of metals and organic chemicals in Dublin soils both natural and man-made.

The SURGE Project report shows that the predominant soil type of the LAP area is Till (Carboniferous limestone). For the purposes of the study and to examine the spatial extent of soil chemical concentrations in Dublin, the city was divided into zones which account for the history and geography of different city areas. Clongriffin- Belmayne falls within the 'Inner Suburban Zone'.

A broad range of environmental issues relating to landscape and soils has been identified, and includes the following

- The need to ensure the natural environment and open space amenities are connected and integrated as main features of the area's identity and character
- The need to protect important features of the wider landscape such as views for example views towards Howth, the rural area in Fingal with hedgerows and the railway embankment
- Increase volumes of surface water run-off due to conversion of permeable landscapes to impermeable causes increased flooding, erosion and alteration of soils and their associated habitat

- Lack of protection and mitigation of impacts of construction on soils, causing soil structural degradation and compaction

Cultural Heritage

Built Heritage

There is a limited amount of built heritage features within the LAP boundary. However, it is important to note the significant conservation heritage that adjoins the LAP lands to the west and comprises the significant Belcamp College lands. While the college lands are outside the boundary of the plan it provides an important built heritage feature which is of importance for local identity, heritage preservation and a potential amenity asset. Grange Abbey is a ruined abbey dating back to the 13th and 14th century and the ruins bound the LAP area to the south.

Archaeological Heritage

The archaeological heritage within the area is located around four zones of interest. It is within these zones that archaeological features are likely to occur. The zones relate to enclosure sites, church site and a possible castle site.

Many of these sites were investigated by conditions on past planning applications and did not lead to any significant findings. The LAP presents an opportunity to protect the archaeological heritage of the area and highlight the past historic and cultural landscape.

Environmental issues relating to cultural heritage have been identified, and include the following

- To preserve and enhance the setting and character of the built heritage of the area including Grange Abbey and Belcamp College and to ensure future development has regard to the historical value of these sites
- To promote the in-situ preservation of archaeology within the LAP area where possible

Environmental Protection Objectives

SEA Environmental Protection Objectives are measures used to show whether the objectives of a local area plan are beneficial to the environment, to compare the environmental effects of alternatives, or to suggest improvements.

If complied with in full, the environmental objectives set should result in an environmentally neutral impact from implementation of the plan.

Objectives set have been adapted to the local circumstances and environmental issues of the North Fringe Area and in some cases Dublin city (more strategic issues). The environmental protection objectives set for the SEA have been derived from environmental protection objectives which have been established in law at international, European Union, national and local level and from a review of baseline information and the environmental problems identified by the SEA team.

Table 5 below details the Environmental Protection Objectives set for the protection of each of the environmental receptors. It should be noted that all environmental protection objectives set impact on population and human health.

ENVIRONMENTAL RECEPTOR	ENVIRONMENTAL PROTECTION OBJECTIVE
Population and Human Health	PHH To protect and enhance people's quality of life based on high quality residential, community, working and recreational environments and on sustainable travel patterns.
Biodiversity/Flora & Fauna	BFF To protect and enhance the diversity and range of habitats, species and wildlife corridors/green corridors
Water	<p>W1 To comply with EU Water Framework Directive to ensure and maintain good ecological status of all receiving water in the LAP area</p> <p>W2 To reduce and manage the risk of flooding</p> <p>W3 To provide adequate wastewater treatment, water distribution networks and drainage networks</p>
Air Quality & Noise	<p>AN 1 To protect good air quality status and minimise all forms of air pollution (i.e. Nitrogen oxides & Particulate Matter)</p> <p>AN2 To maintain and, where possible, improve the good acoustical quality for the current and future residents of the plan area</p>
Climatic Factors	CF To minimise emissions of greenhouse gases
Material Assets	<p>MA1 To reduce traffic levels by encouraging modal change from car to more sustainable modes of transport such as public transport, walking & cycling</p> <p>MA2 To reduce the generation of waste and adopt a sustainable approach to waste management</p>
Landscape & Soils	<p>LS1 To conserve and enhance valued natural landscapes and features within them including those of geological value</p> <p>LS2 To protect, improve and maintain the quality of soils and give preference to the re-use of brownfield lands, rather than developing greenfield sites</p>
Cultural Heritage	CH To protect and conserve the cultural heritage including the built environment and settings; archaeological (recorded monuments, architectural structures, materials and urban fabric) and manmade landscape features

Identification of Alternatives

It is standard practice when devising a plan that various ways of fulfilling its objectives are considered. Dublin City Council, as the plan-making authority, is obliged therefore to consider alternative ways of achieving the objectives of the local area plan for Clongriffin - Belmayne.

For the purposes of the Draft Local Area Plan, three possible realistic alternatives have been identified and described, reflecting the need to achieve the following objectives:

- To provide effective guidance for the completion of developments previously permitted in the local area over the last 10 years or so
- To assist the completion of important social, physical and green infrastructure to service existing communities
- To address the issues of vacancy and interim proposals on lands not likely to be completed with development in the medium to long term
- To connect and integrate communities adjacent to the LAP area including the Clarehall and Donaghmeade neighbourhoods in the Dublin City Council area and the Baldoyle-Stapolin neighbourhoods in Fingal County Council

Alternative 1: Reissue the North Fringe Action Area Plan 2000

This option proposes to reissue the North Fringe Action Area Plan which was published in June 2000 and use this as the tool to guide development in the area. The objective of the plan would be as it was in 2000 to provide a coherent urban structure, provide a distinct identity for the area and integrate new and existing communities. An emphasis on maximising linkages between the Dublin City Council and Fingal County Council lands would be a key objective. The plan would advocate an urban model placing public

transport, increased densities and a mix of uses at its core.

Alternative 2: Don't prepare an LAP and allow the Z14 land use zoning objective as the mechanism for development of the area

This option would see the Z14 land use zoning objective as the only mechanism for influencing how the area would develop. The objective of the Z14 zoning is to seek the social, economic and physical development and/or rejuvenation of an area with mixed use, of which residential and Z6 would be the predominant uses. Z6 zoning is to provide for the creation and protection of enterprise and facilitate opportunities for employment.

Alternative 3 – Develop a framework for proper planning and sustainable Development of Clongriffin- Belmayne (Preparation of an LAP)

The preparation of an LAP would provide an updated strategy on how the area should be developed and managed in line with best practice in sustainable urban planning to meet the needs of all existing and future residents. The LAP would focus on policies and mechanisms that would deliver necessary physical, social and environmental infrastructure for the local area. It would also set out interim priorities to improve the quality of life for the existing community and address the challenges caused by the decline in the economy.

Evaluation of Alternative Plan Scenarios

The three identified alternative scenarios have been assessed against the set Environmental Protection Objectives.

Alternative 1

This option would likely have a negative impact on population/human health. The Action Plan was prepared before applications were permitted in the area and before the economic downturn. It does not include measures that address vacancy or incomplete infrastructure for example. The original plan would not be robust enough to meet the needs/requirements of the existing and future residents of the area. The plan would be non-statutory and would not have been informed by the

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SEA process or the requirements of the Habitats Directive. The original plan did not include a clear sequence of phasing and this would lead to a range of environmental conflicts including achievement of effective public transport connections.

Alternative 2

This option would predominately result in individual planning applications being assessed in isolation and without due cognisance given to the role of biodiversity. There would be potential for a lack of joined up thinking in relation to the creation of green routes and corridors which would enhance biodiversity value. The lack of an over arching policy document for the area would potentially have a negative visual impact on, natural landscapes or result in a loss of natural elements of the landscape. The inability to co-ordinate at a masterplan level and in particular with clear phasing priorities would lead to a range of environmental conflicts including achievement of effective public transport connections.

Alternative 3

This alternative is more likely to bring about better environmental outcomes for the area. The LAP would devise a strategy to improve the quality of life for the existing community and address the challenges caused by the decline in the economy, including the issue of vacant and partially finished development sites. A phasing strategy to complete infrastructure and development in a coherent manner would also be provided. An over arching policy document would exist to balance the development of an urban environment with the protection and enhancement of the environment.

Based on the analysis of the alternative scenarios, the preparation of an LAP (Alternative 3) was selected as the preferred approach. This approach has been found to have the most positive impact on the environment.

Evaluation of the Draft Clongriffin-Belmayne (North Fringe) LAP

Population and Human Health

The policies of the draft plan have been found to have overall significant beneficial impacts on population and human health. The draft Plan focuses in particular on policies and mechanisms that deliver the necessary physical, social and environmental

infrastructure for the local area. The draft plan also sets out interim priorities to improve the quality of life for the existing community and address the challenges caused by the decline in the economy, including the issue of vacant land banks. The plan emphasises the need to promote ease of movement within the area along with access to the area with a high quality integrated transport network.

Biodiversity, Flora and Fauna

The draft plan was found largely to have potential for significant beneficial effects on the biodiversity, flora and fauna of the area. The plan also encourages opportunities to protect existing, and create new, habitats through the creation of a multi-functional green network which includes areas of high biodiversity value. Emphasis is also placed on the protection of designated, as well as undesignated sites, of high biodiversity value.

Policies and objectives contained within the plan to increase accessibility generally, including pedestrian and cyclist access, to the River Mayne, areas of natural recreation, private recreational lands etc could also have potential significant adverse impacts in terms of disturbance, fragmentation or loss of habitats unless mitigated against.

Water

A potentially significant adverse impact of the draft plan on water is the potential deterioration of water bodies. Dublin Region's wastewater treatment plant at Ringsend is currently operating at capacity. Without the provision of upgraded and new wastewater infrastructure, the city's ability to absorb additional population, economic growth and development is seriously restricted. Mitigation will be necessary.

Apart from the wastewater issue, the policies and objectives have been found to have likely significant beneficial impacts on water in the area as the provision of upgraded and new wastewater infrastructure, greening the landscape, protecting and improving

biodiversity and areas of environmental importance, improving the character of watercourses and water quality in general.

Air Quality & Noise

Overall the draft local area plan will have significant beneficial impacts on air and noise. The air quality in the area is currently good. Emissions from the transport sector are the main threat to air quality. The emphasis throughout the plan is on reducing the need to travel by private car whilst encouraging and facilitating modal change to more sustainable forms of transport e.g. travel by foot, bicycle and public transport. In relation to noise, again transport is the main issue. Traffic noise is the dominant noise source in the area. The emphasis throughout the draft plan is on reducing the need to travel by private car whilst encouraging and facilitating modal change to more sustainable forms of transport e.g. travel by foot, bicycle and public transport.

Climatic Factors

The plan approach is based on the completion of the area on a phased basis that makes efficient use of land located in close proximity to good public transport links, both existing and those planned for in the near future. While additional residential and economic activity will be facilitated and take place in the area which could result in increased greenhouse gases, this potential negative impact is offset by the fact that development will take place in well connected, accessible locations served by public transport infrastructure which will reduce the need to travel by private car to less accessible locations on the urban fringe and beyond. Some short-term impacts on climatic factors will occur (particularly in relation to the emissions of greenhouse gases and use of energy) as a result of increased development and construction but these would not be considered significant.

Material Assets

Overall the plan will have significant beneficial impacts on transport in the area. The need for a greater modal shift from private car to more sustainable forms of transport is emphasised throughout the plan. The plan also seeks the completion of the internal street networks, improvement in terms of access from residential areas to public transport and the completion of a green route connecting open space amenity.

The plan will also serve to have significant beneficial impacts on waste management as the policies and objectives of the plan are focused on delivering sustainable infrastructure, including for waste management, as well supporting the principles of good waste management, to prevent and minimise waste, to develop biological treatment, encourage and support material sorting and recycling and support the provision of waste to energy.

Landscape

The plan will serve to have potential significant beneficial impacts overall on landscape and soils of the area. The existing environmental problems which are identified as relevant to the LAP include poor physical site conditions owing to previous infrastructural works, halt in completing developments, sites requiring the removal of debris and a lack of landscaping (owing to soil movements and initial infrastructure works).

The policies and objectives of the draft plan encourages the reuse of brownfield sites and in turn promotes initiatives on vacant sites as interim proposals for physical, visual and environmental improvement of vacant land banks.

Cultural Heritage

Overall the impacts of the plan were found to have a mixture of potential significant beneficial impacts on the cultural heritage of the area and insignificant impacts. There is a limited amount of built heritage features within the LAP boundary. The plan seeks to preserve

the in-situ archaeological heritage within the area.

Mitigation Measures

Measures are identified to prevent, reduce and as fully as possible offset any potential significant adverse environmental effects of implementing the Draft Clongriffin – Belmayne (north fringe) LAP.

Potential significant adverse impacts of implementing the Draft LAP arise as a result of policies and objectives to facilitate additional population by achieving high quality and sustainable densities, economic growth, improvements in infrastructure and promoting increased access to recreational areas and improving new patterns of pedestrian and cycle movements.

While these policies and objectives are fully in line with city, regional and national policy to consolidate and ensure a more compact city with greater intensity of uses and to ensure that the city's role as the economic engine of the state is strengthened there is potential for significant adverse impacts on the receiving environment unless mitigated against. Mitigation measures are the measures to prevent, reduce and as fully as possible offset any significant adverse environmental effects as a result of implementing the plan.

Policies and objectives with sustainability at their core allow them to act as mitigation measures to offset any potential adverse impacts on the environment as a result of implementing the draft local plan. Mitigation in the form of policies and objectives serve to formalise the mitigation measures and fully integrates them into the local area plan process.

The draft local area plan includes mitigatory measures in the form of policies and objectives to offset any potential impacts on the environmental receptors. No additional mitigation measures were considered necessary in relation to any of the environmental receptors.

The SEA Statement

When the Clongriffin-Belmayne LAP is adopted, the final stage of the SEA process is undertaken i.e the SEA Statement.

This document is published and sent to the Environmental Authorities. It is required to include information on:

- How environmental considerations have been integrated into the LAP, highlighting the main changes to the plan which resulted from the SEA process.
- How the Environmental Report and consultations have been taken into account summarising the key issues raised in consultations.
- In the Environmental Report, indicate what actions, if any, were undertaken in response, and the reasons for choosing the plan in the light of the other alternatives, identifying the other alternatives considered, commenting on their potential effects and explaining why the plan was selected.

The SEA statement must include information on how environmental considerations have been integrated throughout the process. It must also describe how the preferred alternative was chosen to introduce accountability, credibility and transparency into the strategic decision making process.

Legislative Conformance

This report complies with the provisions of the SEA Regulations and is written in accordance with Schedule 2B of the Planning and Development (SEA) Regulations 2004-2011.

SECTION 1

1.0 Introduction

This is the Environmental Report prepared as part of the Strategic Environmental Assessment of the Draft Clongriffin- Belmayne (North Fringe) LAP 2012-2018. 'Environmental Report' means that part of the plan's documentation which contains the information required by Article 5 and Annex I of the SEA Directive and Schedule 2B of the Planning and Development (Strategic Environmental Assessment) Regulations 2004 (as amended). The Draft Appropriate Assessment, also prepared in parallel with the local area plan, was prepared and is available as a separate document. Both environmental assessments have been integrated into the statutory time-tables for the preparation of the local area plan.

1.1 Background

Strategic Environmental Assessment (SEA) is the *"formal, systematic assessment of the likely effects on implementing a plan or programme before a decision is made to adopt the plan or programme."* SEA affords a high level of protection of the environment and contributes to the integration of environmental considerations at an early stage in the preparation of a plan with a view to promoting sustainable development. The SEA informed the draft plan of any significant environmental impacts.

This Environmental Report is not the SEA, rather it documents the SEA process and is the key consultation document in the SEA process and facilitates interested parties to comment on the environmental issues associated with the Draft LAP.

1.1.1 Legislative Context of SEA and Purpose of the Environmental Report

The SEA was carried out to comply with the provisions of the SEA Directive (Directive 2001/42/EC) and those regulations transposing the Directive into Irish Law i.e. European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 (S.I. 435 of 2004) and Planning and Development Regulations 2004 (S.I. No. 436 of 2004) (as amended). Under the Directive 2001/42/EC and S.I. 436 of 2004 – Planning and Development (Strategic Environmental Assessment) Regulations 2004 Dublin City Council was required to carry out a Strategic Environmental Assessment (SEA) of the Draft Clongriffin-Belmayne (North Fringe) Local Area Plan 2012-2018. The purpose of the SEA Directive is to *"...provide a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans and programmes with a view to promoting sustainable development, by ensuring that, in accordance with this Directive, an environmental assessment is carried out of certain plans and programmes what are likely to have significant effects on the environment."*

The Environmental Report is at the heart of the SEA process. It is a key mechanism in promoting sustainable development, in raising awareness of the significant environmental issues and in ensuring that such issues are properly addressed within the capacity of the planning system to do so.

There has been complete integration between the preparation of this Environmental Report and of the local area plan allowing for the local area plan to be informed by environmental considerations from the outset. The Environmental Report has guided the preparation of objectives, policies, and local area plan alternatives for the plan. The Environmental Report forms part of the local area plan documentation.

The likely significant effects on the environment of implementing the local area plan, and reasonable alternatives, are described and evaluated in this report. In accordance with Directive 2001/42/EC, this report includes information that may be reasonably required taking into account:

- Current knowledge and methods of assessment,
- The contents and level of detail in the plan,
- The stage of the plan in the decision-making process, and
- The extent to which certain matters are more appropriately assessed at different levels in the planning process in order to avoid duplication of assessment.

1.2 Strategic Environmental Assessment

1.2.1 Description of the Draft Clongriffin- Belmayne (North Fringe) LAP 2012-2018

The Draft Local Area Plan is being prepared to give effective guidance for the proper planning and sustainable development of approximately 176 ha of lands zoned Z14 under the Dublin City Development Plan 2011-2017.

The area is designated for as a Key Developing Area within the Core Strategy for Dublin City under the Dublin City Development Plan 2011-2017 and as requiring a Local Area Plan. The area is also designated for Key District Centres, one at the east boundary of the LAP area adjacent to Clongriffin Rail Station and one at the western end of the LAP area at the R107 (Malahide Road) and N32 junction.

The context for this local area plan is to provide effective guidance for the completion of developments previously permitted in the local area over the last ten years, assist the completion of important social, physical and green infrastructure to service existing communities, address the issues of vacancy and interim proposals on lands not likely to be completed with development in the medium to long term and achieve successful integration and connection of the LAP area with the wider neighbourhood.

A special focus for the LAP will be the integration and successful connection between communities adjacent to the LAP area including the Clarehall and Donaghmeade neighbourhoods in Dublin City Council and the Baldoyle-Stapolin neighbourhoods in Fingal County Council. This wider area is included for context analysis. Objectives under the LAP will promote positive integration between communities, improved connections (walking and cycling routes in particular) and improved access between residential areas and locations of community uses, retail services, employment and public transport provision.

The environmental character of the LAP area is therefore characterised by this transitional state. A non implementation of the plan would impact on progress and co-ordination between council departments, developers, the community, state agencies and other stakeholders in implementing interim measures to improve the physical, visual and environmental character of the LAP area. It would also delay progress in the successful completion of developments in the area.

A non implementation of the plan would pro-long the extent of time that sites remain vacant, cleared and devoid of originally planned development works and landscaping. It would pro-long the duration of a poor visual and physical environment in the LAP area.

A non implementation would impact on the successful completion and integration of a street network, delivery of walking and cycling routes, creation of parks and amenity spaces, occupancy in already built but vacant residential and commercial buildings and consolidation of development with sustainable densities to support public transport and walkable communities. Progress under such themes would help to create a high quality and sustainable urban neighbourhood integrated services, public transport, recreational areas and natural amenities as originally planned.

The Draft Local Area Plan will be prepared with three distinct sections. Section A will set out a survey and analysis of the LAP area including an overview of National, Regional and City planning policies which have to be considered in the preparation of the plan, an overview of the previous North Fringe Action Area Plan (2000), progress with planning permissions previously permitted in the LAP area, a survey of the character of development already completed, socio-economic profile of the area, community and social infrastructure audit and identification of the important issues raised by the local community and stakeholders on the matters to be addressed by the Local Area Plan during pre draft public consultation.

Section B will provide the strategy, co-ordination between stakeholders and the framework to guide the future proper planning and sustainable development of the LAP area under the main chapter headings of:

- Movement and Transportation
- Urban Form
- Economic Development
- Environment and Open Space Amenity
- Community and Social Infrastructure
- Built Heritage and Archaeology
- Culture and Tourism
- Infrastructural Services
- Sustainability

Each chapter under Section B will include a number of specific policies and objectives which are to be achieved and adhered to over the timeframe of the LAP. The issues that policy and objectives will address include:

Movement and Transportation

- (i) Completion of the internal street networks including the North Distributor Road and Main Street.
- (ii) Completion of pedestrian and cycle routes through the LAP area, in particular completion of a green route connecting open space amenity, residential areas and service locations via attractive walking and cycling routes.
- (iii) Improving access from residential areas to public transport (the existing QBC bus routes and train station at Clongriffin).

- (iv) Progression of key infrastructure projects which, although longer term in nature, need to be progressed including completion of the Main Street over the rail line into the Baldoyle-Stapolin LAP area (for public transport, walking and cycling) and by pass of the N32/R107(Malahide Road) junction to deliver the Key District Centre.

Urban Design

- (i) Achieve high quality and sustainable densities to consolidate the area, maximise access for residents and employees to public transport and successfully define important locations and routes including the Main Street access and town centres (KDC designated zones).
- (ii) Develop high quality, adaptable life long family homes to encourage long term occupancy and development of the local community.
- (iii) Design developments to integrate green routes, public parks and amenity spaces as a key feature of the layout of development.
- (iv) Seek a height strategy that achieves sustainable densities and graduates from mixed use service locations accessible to public transport (minimum 5 storeys), defines important access routes serviced by public transport (the Main Street axis 4-5 storeys), allows for landmark profile building in the KDC adjacent to the rail station for density and good place, frames parks and public spaces successfully and achieves a successful mix of housing types between 2-4 storeys in residential locations.

Economic Development

- (i) Complete the street network and connections to the catchment population to assist the vitality of commercial locations.
- (ii) Implement interim physical, visual and land use proposals on large vacant sites in prominent locations to improve activity levels, visual appeal and marketing of commercial locations.
- (iii) Co-ordinate with the Economic Development Unit, Dublin City Enterprise Board and State Agencies in promoting the LAP area for economic investment and occupancy.
- (iv) Capitalise on infrastructure investment made to date in public transport, physical infrastructure, broadband, completed buildings and high quality public realm to attract business and economic uses into the LAP area.

Environment and Open Space Amenity

- (i) Seek the early completion of the green route network
- (ii) Co-ordinate with Fingal County Council on the completion of a linear park along the River Mayne connecting amenities in both Council areas.
- (iii) Protect the natural habitats and protected status of Baldoyle Estuary by ensuring protection of water quality and habitats along the riparian corridor of the River Mayne and ensure appropriate set back of developments, surface water management and park design along its course.
- (iv) Provide for allotment projects, landscaping and other growing initiatives on vacant sites as interim proposals for physical, visual and environmental improvement of vacant land banks.

Community and Social Infrastructure

- (i) Facilitate the development of two co-located primary schools in Phase 1 and deliver good access, in particular walking and cycling connections, between the school location, residential developments and local amenities such as Fr Collin's Park.
- (ii) Co-locate community uses in accessible locations which are close to other community services, amenity areas and mixed use services to maximise opportunities for use and social integration.
- (iii) Promote improved access and connections between residential developments and locations of community services in the wider neighbourhood to optimise use and integrate communities.
- (iv) Seek flexible designs for all community spaces to encourage a wide range of potential activities, users and optimise the use (day time and evening) of community infrastructure.
- (v) Encourage the creation of third places where the community can socialise and interact such as parks, the public realm, cafes and temporary uses.

Built Heritage and Archaeology

- (i) Protect local built heritage, promote access to heritage locations (walking and cycling) and development of a local heritage trail.
- (ii) Promote the built heritage of the wider area in both the Dublin City Council and Fingal County Council areas (sites including Grange Abbey, Belcamp College and St Doolah's Church) as important features for local identity and develop links (walking and cycling routes) that promotes the amenity value of heritage sites for enjoyment of the local communities.
- (iii) Protect sites of archaeological interest and conduct archaeological reports and investigations for works in close proximity to protected and designated sites.

Culture and Tourism

- (i) Support the development of culture and tourism facilities in the LAP area and the provision of fit for purpose cultural infrastructure in large developments.
- (ii) Promote implementation of the Dublin Cultural Strategy 2009-2017 by supporting artistic, community and cultural events in the local area.
- (iii) Request Cultural Impact Assessments within large developments to enhance culture and tourist facilities in the local area.
- (iv) Encourage the alternative use of vacant space for artistic and cultural uses as interim measures which deliver visual and recreational enjoyment for the community, workers and visitors to the local area.

Infrastructural Services

- (i) Incorporate sustainable designs for surface water management including best practice in SUDS and comply with the standards as set out in the Greater Dublin Strategic Drainage Study.

- (ii) Require flood risk assessments to accompany planning applications in the LAP area that include quantifying the risks of flooding in the LAP area and identify the mitigation to reduce such risks.
- (iii) Improve the quality of water courses and meet the objectives of the Eastern River Basin District Management Plan.
- (iv) Complete the integrated network of physical infrastructure at a masterplan level across all the LAP area and protect wayleaves.

Sustainability

- (i) Seek best practice in sustainable design and energy efficiency and incorporate green technology for future development proposals at the level of the individual building, overall scheme and overall neighbourhood.
- (ii) Promote sustainable designs, energy efficiency and green technology to reduce carbon dioxide emissions that protects local air quality and contributes to the city's over all targets in carbon emissions as set out under the Dublin City Sustainable Energy Action Plan 2010-2020.
- (iii) Seek high quality development at sustainable densities which utilise the serviced land resource efficiently, build a critical mass of population to support services and create walkable neighbourhoods.
- (iv) Ensure that the implementation of policy and objectives under the LAP contributes to indicators that measure progress under the Framework for Sustainable Dublin.

Section C will set out the phasing, implementation and future on going monitoring of progress under the LAP. The phasing strategy will be influenced by the need to complete important social and physical infrastructure, connect existing residential communities, consolidate existing development, deliver community and economic stimulus and provide physical and visual improvement to vacant sites which will remain vacant in the medium to longer term timeframe. The phasing strategy will be influenced by a set of interim priorities (focusing on improving amenities, physical connections, temporary land uses and visual improvements) and long term priorities for when the economic climate improves to finance and deliver completed development. The implementation of policy and objectives will be guided by identification of the key stakeholders and target indicators to measure progress.

1.2.2 Integrating SEA into the Plan-Making Process

As with the Appropriate Assessment (AA), the SEA needs to be fully integrated with the various stages of the local area plan preparation process in order to ensure that the environmental implications do not impact negatively upon the environment as a result of changes to policy. Accordingly, Dublin City Council will adopt a precautionary and comprehensive approach, undertaking an environmental assessment at all stages of the plan making process.

1.3 Relationship of the Local Area Plan with other plans and programmes

The local area plan sits within a hierarchy of European, national, regional and local planning policies. A number of plans, policies, programmes and directives at European, national, regional and local level have been identified and taken on board in the preparation of the plan. **Table 1** below sets out the main plans, policies, programmes and directives identified and gives a brief summary of their main objectives.

Table 1 Relationship of the Local Area Plan with other Plans and Programmes

Plan / Programme	Summary of Key Objectives
EU Level	
SEA Directive (2001/42/EC)	Under the SEA Directive the plan requires an SEA. The plan must take into account protection of the environment and the integration of the plan into the sustainable planning of the country as a whole
Kyoto Protocol	Objectives seek to alleviate the impacts of climate change and reduce global emissions of Green House Gases (GHGs). The development plan has regard to the objectives and targets of Kyoto and aim to reduce GHG emissions from the management of residential and commercial development. Harnessing energy from natural resources could be considered to reduce overall GHG emissions
Energy End-Use Efficiency and Energy Services Directive (2006/32/EC)	
The European Landscape Convention (Florence 2000)	Aims to promote landscape protection, management and planning and to organise European co-operation on landscape issues
EU Directive 96/62/EC (Air Quality Directive)	Objective to improve air quality by controlling the level of certain pollutants and monitoring their concentrations
EU Water Framework Directive (2000/60/EC)	Aimed at improving the water environment, requiring member governments to take a holistic approach to managing their waters. Member states must aim to achieve good status in all waters by 2015 and must ensure that status does not deteriorate in any waters
European Environment and Health Action Plan 2004 – 2010	Designed to give the EU the scientifically grounded information needed to help member states reduce the adverse health impacts of certain environmental factors and to endorse better cooperation between actors in the environment, health and research

Plan / Programme	Summary of Key Objectives
	fields
EU Groundwater Directive 2006/118/EC	Developed in response to Article 17 of the Water Framework Directive
EU Floods Directive 2007/60/EC	Aim is to reduce and manage the risk that floods pose to human health, the environment, cultural heritage and economic activity
EU Directive 2002/49/EC	To define a common approach intended to avoid, prevent or reduce, on a prioritised basis, the harmful effects, including annoyance, due to exposure to environmental noise.
EU Habitats Directive 92/43/EEC	Protects over 1000 animals and plant species and over 200 'habitat types' which are of European importance
EU Birds Directive 79/409/EEC	Long term protection and conservation of all bird species living in the wild within the European territory of the member states
EU Drinking Water Directive 98/83/EC	Objective to protect the health of consumers in the EU and to make sure the water is wholesome and clean
EU Bathing Water Directive 76/160 EEC	To ensure good bathing water quality
EU Urban Waste Water Treatment Directive (91/271/EEC)	Aimed at protecting the environment from the adverse effects of urban wastewater discharges and discharges from certain industrial sectors
Soil Framework Directive (proposed)	Member states to adopt a systematic approach to identifying and combating soil degradation
EU Drinking Water Directive 98/83/EC	To protect the health of the consumers in the European Union and to make sure the water is wholesome and clean
Bathing Water Directive 2006/7/EC	Repeals Bathing Water Directive 76/160/EEC on 31 st December 2014
91/271/EEC as amended by Directive 98/15/EEC Urban Wastewater Treatment	To protect the environment from the adverse effects of discharges of urban wastewater by the provision of wastewater collecting systems and treatment plants for urban centres

Plan / Programme	Summary of Key Objectives
European Commission White Paper on Adapting to climate change: Towards a European Framework for Action (COM (2009) 147)	Sets out a framework to reduce the EU's vulnerability to the impact of climate change
EU Shellfish Waters Directive 2006/113/EC	Concerns the quality of shellfish waters and applies to those waters designated as needing protection or improvement in order to support shellfish life and growth
EU Air Quality Directive 2008	Sets binding standards for Air Particles
Directive on Ambient Air Quality and Cleaner Air for Europe (Directive 2008/50/EC)	Provides standards for fine particle PM2.5 pollution in the European Union
Pesticides Framework Directive (proposed)	To control the storage, use and disposal of pesticides to minimise risk to health and environment from their usage and to include measures which relate to soil management strategies in land use planning
Birds and Natural Habitats Regulations (S.I No 477 of 2011)	Provides anew for the implementation in Ireland of Council Directive 92/43/EEC on habitats and protection of wild flora and fauna and on the protection of wild birds. Provide for identification, classification and other procedures relative to the designation of sites, conservation objectives, measures, appropriate assessment and Natura Impact Statement and protection of wild flora and fauna.
National Level	
Water Services Act 2007 (As amended)	Focuses on management of water 'in the pipe' as opposed to river water quality etc
National Climate Change Strategy 2007 – 2012	Sets out measures for Ireland's reduction in emissions
National Development Plan 2007 – 2013	€184 mil infrastructural investment plan to build a prosperous country for Ireland's population
National Spatial Strategy 2002 - 2020	20-year national planning framework to achieve more balanced social, economic and physical development across Ireland based on Gateways and Hubs
Transport 21 (2006 – 2015)	€34 billion transport capital investment

Plan / Programme	Summary of Key Objectives
	framework under the NDP to address past investment backlogs and continuing growth in transport demand
Actions for Biodiversity 2011-2016 – Ireland’s National Biodiversity Plan	Objective to promote the conservation and sustainable use of biodiversity
National Energy Efficiency Action Plan 2009 - 2020	Sets out the government’s actions to achieve 20% energy efficiency saving
Sustainable Residential Development in Urban Areas – Guidelines for Planning Authorities 2009	Objective to produce high quality sustainable development which includes the integration of schools, community facilities, employment, transport and amenities in a timely and cost-effective manner
Urban Design Manual – A Best Practice Approach	Companion document on best practice implementation of ‘Sustainable Residential Development in Urban Areas’
The Planning System and Flood Risk Management – Guidelines for Planning Authorities 2009	Aims to integrate flood risk management into the planning process
Preventing and Recycling Waste: Delivering Change (2002)	Aims to achieve an integrated approach to waste management based on the internationally accepted hierarchy of options with waste prevention favoured
Framework and Principles for the Protection of the Archaeological Heritage (1999)	Outlines the State’s general principles in relation to the management and protection of archaeological heritage
European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 S.I. 435 of 2004 and Planning and Development (Strategic Environmental Assessment) Regulations 2004 S.I. 436 of 2004	Transposes EU Directive 2001/42/EC into Irish Law
Architectural Heritage Protection Guidelines for Planning Authorities (2004)	Practical Guide for planning authorities to deal with the provisions of Part IV of the Planning and Development Act
Wildlife Act 1976 and Wildlife (Amendment) Act 2000	Main Objectives of 1976 Act: To provide for the protection of flora and fauna, 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

Plan / Programme	Summary of Key Objectives
<p>European Communities (Natural Habitats) Regulations, 1997 (S.I. No. 94 of 1997) and amendments S.I. No. 233 of 1998 and S.I. 378 of 2005</p>	<p>services necessary to accomplish such aims</p> <p>Main Objective of the 2000 (Amendment) Act: To give statutory protection to NHAs, geological and geomorphological sites, enhance the conservation of species and habitats, enhance hunting controls, inclusion of most species for protection, regulation of commercial shoot operators, ensure compliance with international agreements, increase fine levels for contravention of Wildlife Acts, strengthen the provisions relating to the cutting of hedgerows, strengthen the protective regime for SACs and to give statutory recognition to the Minister's responsibilities in regard to promoting the conservation of biological diversity</p> <p>Transposes EU Habitats Directive 92/43/EEC into Irish law</p>
<p>European Communities (Drinking Water) (No.2) Regulations 2007 S.I. 278 of 2007</p>	<p>Transposes EU Water Framework Directive (2000/60/EC) and EU Drinking Water Directive 98/83/EC into Irish Law</p>
<p>European Communities (Water Policy) Regulations 2009 S.I. 272 of 2009</p>	<p>Gives effect to the measures needed to achieve the environmental objectives established for the bodies of surface water by Directive 2006/60/EC</p>
<p>Quality of Bathing Water Regulations, 1992 S.I. 155 of 1992</p>	<p>Transposes EU Bathing Water Directive 76/160/EEC into Irish Law</p>
<p>Urban Wastewater Treatment (Amendment) Regulations 2010 S.I. 48 of 2010</p>	<p>Gives effect to Directive 2000/60/EC and to Directive 91/271/EEC</p>
<p>European Communities (Water Policy) Regulations 2003 S.I. 722 of 2003</p>	<p>Transposes the Water Framework Directive into Irish Law</p>
<p>European Communities Quality of Shellfish Waters (Amendment) Regulation 2009 S.I. 55 of 2009 & Malahide Shellfish Waters Pollution Reduction Programme for Programmes as per SI No. 268 of 2006</p>	<p>To give effect to in the State to Directive 79/923/EEC of 30th October 1979 on the quality required of shellfish waters</p>
<p>European Communities (Assessment and Management of Flood Risk) Regulations</p>	<p>Transposes EU Floods Directive 2007/60/EC into Irish Law</p>

Plan / Programme	Summary of Key Objectives
2010 S.I. 122 of 2010	
Environmental Noise Regulations 2006 S.I. 140 of 2006	Transposes EU Directive 2002/49/EC into Irish Law
Ambient Air Quality and Assessment and Management Regulations, 1999 S.I. 33 of 1999	Transposes EU Directive 96/62/EC (Air Quality Directive) into Irish Law
National Renewable Energy Action Plan (NREAP)	The National Renewable Energy Action Plan (NREAP) sets out the Government's strategic approach and concrete measures to deliver on Ireland's 16% target under Directive 2009/28/EC
S.I. 436 of 2004 Planning and Development (Strategic Environmental Assessment) Regulations 2004	
Regional Level	
Retail Strategy for the Greater Dublin Area (GDA) 008 - 2016	Aims to set out a co-ordinated, sustainable approach to the assessment and provision of retail within the Greater Dublin Area
Greater Dublin Strategic Drainage Study	Identifies the policies, strategies and projects for developing a sustainable drainage system for the Greater Dublin Region; Identifies the need for the North Dublin Wastewater Treatment Plan and the Orbital Sewer, improvements in the drainage capacity and the need to upgrade existing treatment plants to their ultimate capacity
Dublin Coastal Flooding Protection Project	Aims to address and assess the risk from tidal flooding around the coastline
Regional Planning Guidelines for the Greater Dublin Area 2010 - 2022	Aims to direct the future growth of the Greater Dublin Area over the medium to long term involving sustainable planning and through the protection of environmentally sensitive or important locations
Waste Management Plan for the Dublin Region 2005 – 2010	Provides a framework for minimising waste, encouraging recycling and ensuring the avoidance of environmental pollution. Policy also includes diversion from landfill in accordance with targets set out in the European Union Landfill Directive
DTO Strategy 2000 – 2016 A Platform for Change	Integrated, multi-modal transportation

Plan / Programme	Summary of Key Objectives
	strategy for the Greater Dublin Area
2030 Vision for Greater Dublin Transport	To identify areas of accessibility within the Dublin Region and the most appropriate locations for intensification
Dublin Agglomeration Noise Action Plan relating to the Assessment and Management of Environmental Noise 2008 - 2013	To identify the scale of the noise problem in the Dublin Region and set realistic targets for noise reduction if so required
Eastern River Basin District - River Basin Management Plan 2008 and Associated Programme of Measures (POM)	Describes the actions that are proposed to ensure the necessary protection of waters in the Eastern River Basin District
Greater Dublin Strategic Drainage Study (GDSDS) 2005	Objective to identify the policies, strategies and projects for developing a sustainable drainage system for the Greater Dublin Area
Water Supply Project Dublin Region	Study determining a new major water source to meet projected demand in the long term
Eastern River Basin District Management Plan 2009 – 2015 and Associated Programmes of Measures	Describes the actions that are proposed to ensure the necessary protection of waters in the Eastern River Basin District
Catchment-Wide Flood Risk Assessments	Requirement of the EU Floods Directive
2030 Vision, DTO (Draft)	To identify areas of accessibility within the Dublin Region and the most appropriate locations for intensification
Dublin City Level	
Dublin City Development Plan 2011-2017	The development plan sets out the spatial framework for the city within the context of National and regional plans.
Dublin Docklands Master Plan 2008	Key objective to secure the sustainable social and economic regeneration of the area, with improvements to the physical environmental being a vital ingredient
Dublin City Council Biodiversity Action Plan 2008	Aims to achieve the objectives of the Dublin City Development Plan relating to quality of life, green spaces, amenity provision, planning development and protection of the natural heritage in the city as well as working towards the world target the “achievement by 2010 of a significant reduction in the current loss of biological biodiversity”
Dublin Agglomeration Noise Action Plan	For the Dublin Agglomeration distinct noise

Plan / Programme	Summary of Key Objectives
relating to the Assessment and Management of Environmental Noise 2008 – 2013	maps have been produced for all roads, and all railway lines including the Luas (light rail) for all four local authorities in the Agglomeration. These maps cover the long term average periods for night time (Lnight) and 24 hours (Lden).
Green City Guidelines – Advice for the Protection and Enhancement of Biodiversity in Medium to High-Density Urban Developments 2008	Provides practical guidance to planners and developers on how to integrate biodiversity into new developments, specifically medium to high density housing developments in urban areas
Climate Change Strategy for Dublin City 2008 - 2012	Focuses on the continuation of the implementation of a range of measures across key areas involving a cross-cutting approach and includes targets in energy, planning, transport, waste management
Dublin City Sustainable Energy Action Plan 2010-2020	This long-term vision shows how, the introduction of carbon neutral and low-energy buildings, improvements in information technology and the development of a low-carbon transport system will help Dublin to reduce its carbon emissions by 50 per cent.
Cultural Strategy for Dublin City 2009	Aims to fulfil the vision “Culture is integral to Dublin city’s identity and quality of life”
Dublin City Heritage Plan	Sets out priorities to identify, protect, preserve, enhance and increase awareness of Dublin’s heritage in the area of the historic built environment, the natural environment and the social and cultural history of the city
Dublin City Council’s Guidelines for Open Space and Development Taking in Charge (2009)	Guidelines issued by Dublin City Council which include required measures
Habitat Management Plans	Management Plans produced for five parks – Springdale Park, St. Kevin’s Park, St. Anne’s Park, Le Fanu Park and Bushy Park - and being implemented by Dublin City Council Parks and Landscape Services

SECTION 2

2.0 Strategic Environmental Assessment Methodology

The SEA was carried out in accordance with the requirements of the 2004 SEA Directive and the Planning and Development (Strategic Environmental Assessment) Regulations 2004 (as amended). The SEA Guidelines for Planning Authorities, published by the Department of Environment, Heritage and Local Government (DoEHLG) in 2004, were utilised for guidance purposes.

In line with best practice recommended in the SEA Guidelines, the SEA was carried out by an inter-departmental, multi-disciplinary team. The inter-departmental team was made up of experts in all of the environmental receptor areas to be addressed. A series of meetings were also held. The meetings were attended by the SEA team and the local area plan team. All stages of the SEA were led and coordinated by the Planning and Economic Development Department.

A series of steps were taken during the assessment process which are summarised below in **Sections 2.1 to 2.7** below.

2.1 Screening

SEA is mandatory for local area plans where the population is 5,000 persons or more, or where the area covered by the local area plan is greater than 50 square kilometres as directed under the 'Planning and Development (Strategic Environmental Assessment) Regulations 2004 and as amended by Planning and Development (Strategic Environmental Assessment) (Amendment) Regulations 2011, (S.I. 201 of 2011). However, a screening report was prepared and submitted to the statutory consultees.

2.2 Scoping

Having established that SEA is mandatory for local areas plans, the next step was scoping the contents of the Environmental Report (ER). Scoping is undertaken to ensure that the relevant environmental issues are identified allowing them to be addressed appropriately in the Environmental Report. Scoping is undertaken early in the process to ensure that all relevant issues are identified and dealt with.

Under Article 6 of the SEA Directive, the competent authority, in this case Dublin City Council, preparing the plan is required to consult with specific environmental authorities (statutory consultees) on the scope and level of detail of the information to be included in the Environmental Report. Under S.I. 436 of 2004 and as set out in the Planning and Development (Strategic Environmental Assessment) Regulations 2004 and S.I. 201 of 2011 amending the Planning and Development (Strategic Environmental Assessment) Regulations 2004 the statutory consultees have been established as being:

- Environmental Protection Agency (EPA)
- Department of the Environment, Community and Local Government
- Department of Agriculture, Fisheries and Food
- Department of Communications, Energy and Natural Resources
- Department of Arts, Heritage and the Gaeltacht
- Fingal County Council

2.2.1 Scoping and consultation with the environmental authorities and adjoining local authorities

In line with best practice, a Scoping Issues Paper was prepared by the planning authority to facilitate the consultation process. Initial consultation was carried out in April 2012 with the issuing of the Scoping Issues Paper to the above-mentioned statutory environmental authorities and the adjoining local authority. Written feedback was received from the environmental authorities and was taken on board.

2.2.2 Summary of Feedback from the Environmental Authorities

The following is a summary of the feedback received from the designated environmental authorities.

Feedback from Environmental Protection Agency (EPA)

An SEA pack compiled by the EPA was submitted with consultation feedback. Recommendations from EPA stated that the local area plan should:

- Incorporate specific relevant objectives and measures for individual water bodies set out in the Eastern River Basin Management Plan and associated Programme of Measures (POM). The Plan should not hinder, and where possible promote the achievement of these specific objectives at water body level. In addition the plan should outline the current water quality status and the status to be achieved by 2015 in any receiving waters covered by the Plan.
- The SEA and Plan making processes should address drinking water supply capacity, leakage and quality in the Plan area.
- The Plan should implement the European Communities (Drinking Water)(No.2) Regulations 2007.
- The Plan should seek to implement best practise in the provision of appropriate drinking water to service the Plan area.
- The Plan should include, where applicable, specific objectives for the improvement of any water supplies in the Plan area.
- The Plan should refer to the EPA guidance handbook on the *Implementation of the Regulations for Water Services Authorities for Public Water Supplies* which has been prepared under the European Communities (Drinking Water) (No.2) Regulations 2007.
- The Plan should highlight the requirement under *The Waste Water Discharge (Authorisation) Regulations* for all wastewater discharges, including storm water discharges which come within the scope of these Regulations to be licensed.
- The Plan should include as appropriate measures to improve water quality impacted by waste water discharges.
- The Plan should implement the Urban Waste Water Treatment Regulations 2001 and 2004.
- The Plan should, where possible and appropriate, include/ and /or promote the inclusion of specific Policies and Objectives regarding the provision and maintenance of adequate and

appropriate wastewater treatment infrastructure to service zoned lands and developments within the Plan area.

- The Plan should include as appropriate measures to ensure that trade effluent in the area covered by the Plan is managed properly and discharged to sewer in accordance with relevant discharge licences where appropriate.
- The Plan should include clear Policy and Objective for the protection of groundwater resources.
- The Plan should include measures to promote conservation of water.
- The Plan should include provisions to promote the preparation and implementation of Water Services Plans.
- The Plan should make reference to the E.U Directive (2007/60/EC) on the assessment and management of flood risks entered into force on 12 December 2007.
- The Plan should provide for protection, management, and as appropriate, enhancement of existing wetland habitats where flood protection/management measures are necessary.
- Consideration should be given to incorporating hydrometric information.
- The Plan should include, where relevant, a specific commitment to deliver the requirement of the Habitats Directive.
- The plan should incorporate, as relevant, the objectives of the Water Framework Directive River Basin Management Plans.
- The Plan should promote the protection of salmonid waters, designated fisheries and shellfisheries where relevant and appropriate within each Plan area and adjoining LA areas.
- The Plan should include policies/objectives for the protection of NHAs, National Parks, Nature Reserves, Wildfowl Sanctuaries, Refuges for Fauna or Flora and sites proposed for designation.
- The Plan should promote the provision/application of appropriate buffer zones between designated ecological sites and areas zoned for development.
- Consideration should be given to including policies/objectives in the Plan for the development of green infrastructure within the Plan area.
- The Plan should promote specific Policies/Objectives and associated provisions for the development and promotion of appropriate climate change adaptation and mitigation measures.
- Consideration should be given to promoting specific Policies / Objectives in the Plan for the protection and improvement, as appropriate, of air quality within the Plan area.
- The Plan should promote, where appropriate, the use of renewable energy systems.
- The Plan should ensure provision of adequate and appropriate infrastructure and to serve both the existing community and likely future predicted increases in population within the Plan area.

- The Plan should promote and, as appropriate provide for, the provision of sustainable modes of transport.
- The Plan should promote where relevant and appropriate long term, sustainable planning for tourism within the Plan area.
- The Plan should promote the integrated planning for adequate and appropriate infrastructure to service any development proposed and authorised during the lifetime of the Plan.
- The Plan should promote the integration of land use zoning and development to existing and planned availability of waste infrastructure and capacity.

Feedback from Department of Communications, Energy and Natural Resources

The following are the key points raised in the documentation:

- The Mayne River traverses the site. This system is non-salmonid, however IFI is currently assessing the viability of a salmonid reintroduction programme. The system is non-salmonid as a result of blockages to fish passage in the lower reaches in combination with historical local water quality issues. An impassable feature at the coast (non-return tidal flap) is a key issue impacting on fish transition in this system. Formulation of the SEA should provide an invaluable opportunity to address this issue in the context of Local Authority stated objectives relating to natural heritage, ecological connectivity and protection / enhancement of biodiversity and amenity.
- Regard should be had to the need for the sustainable development of the inland and marine fisheries resource (including the conservation of fish and other species of fauna and flora, aquatic habitats and the biodiversity of inland and marine water ecosystems) when developing the SEA. It is recommended that consideration be given (where appropriate) to potential significant impacts on:
 - Water quality
 - Surface water hydrology
 - Fish spawning and nursery areas
 - Passage of migratory fish
 - Areas of natural heritage importance including geological heritage sites
 - Biological Diversity
 - Ecosystem structure and functioning
 - Amenity and recreational areas

Inland Fisheries Ireland would ask that the following is noted and incorporated in the final SEA:

- It is important to note that sufficient treatment capacity must be available both within the receiving sewerage system locally and downstream at the relevant receiving waste water treatment plant over the full duration of the plan in order that the ecological integrity of the ultimate receiving water is protected. IFI would highlight the importance of building a comprehensive and robust assessment of both local infrastructural needs and Local Authority capacity to meet those needs into the Local Area Plan. Should the WWTP fail to provide expected capacities during the life of the LAP, IFI would highlight the risk of associated significant environmental effects resulting from local development.

- The impact of development on watercourses should be handled with the utmost sensitivity to the relevant aquatic and riparian habitats. It is essential that the IFI be contacted in relation to all works that may have an impact on surface waters (as per PLANNING AND DEVELOPMENT REGULATIONS, 2001, Section 28). The disturbance of riparian habitats should be minimised. An undisturbed buffer zone between development area and river bank should be maximised (10m minimum as proposed in the LAP). Riparian vegetation should be retained in as natural a state as possible at all times.
- Preparation of the LAP SEA should facilitate the utmost priority for protection and conservation of surface water systems in the area. IFI Blackrock's policy is to maintain watercourses in their open natural state in order to prevent habitat loss, preserve and enhance biological diversity and aid in pollution detection. IFI would welcome the designation of lands adjacent to surface waters, as areas of open preservation allowing protection / enhancement of biological diversity while providing open space and recreational amenity for river users. Natural heritage objectives should include maintenance of buffer zones of at least 10m from the water's edge along both banks of the surface waters in the LAP area. This measure should help to protect fisheries, amenity, natural heritage and ecological interests.
- The protection of habitats outside designated areas and a Council commitment to reject proposals that would interfere with natural floodplains would greatly benefit both aquatic and riparian features in the surrounding areas. IFI Blackrock is strongly opposed to any development on floodplain lands.
- The implementation of a SUDS design for surface water disposal in any areas of increased urbanisation is a positive indicator of the Council's intention for the sustainable development of the area and should, in conjunction with good management of the site, aid in flooding and pollution management. Policies and recommendations made under the Greater Dublin Strategic Drainage Study (GDSDS) should be applied in development of a drainage strategy for the LAP under consideration. Implementation of the LAP should not compromise objectives as set out in Fisheries, Water Framework Directive and other relevant legislation.

Commitment to these broad principles within the LAP is recommended. The principles of sustainable development as set out in the National Sustainable Development Strategy adopted by Government should form the basis for development approaches. It is essential that infrastructural development (such as local sewerage system capacity) should precede actual development at all times.

2.3 Preparation of Scoping Report

Following feedback from the environmental authorities on the Scoping Issues Paper, a Scoping Report was prepared taking into account the recommendations and advice received from the environmental authorities and also those issues raised in the baseline studies carried out by the SEA team.

Devising the Scoping Report is considered good practice, although not statutorily required. The report presented the current understanding of the main key environmental issues and could also be used as a tool to generate further comment from stakeholders on the scope and approach of the SEA.

2.4 Environmental Baseline Data

The main purpose of describing the existing environment is to identify the current state of the environment, against which the likely effects of implementing the local area plan can be assessed. The baseline in this instance refers to the existing state of the environment in the Clongriffin – Belmayne (North Fringe) area.

The impacts of the local area plan can be estimated as the difference in environmental conditions with or without implementation of the plan. The existing environment of Clongriffin – Belmayne (north Fringe) is characterised by way of a description of the environmental receptors as set out in SEA Directive i.e.

- Population
- Biodiversity, flora and fauna
- Air
- Climatic Factors
- Water
- Material Assets (transport and waste management)
- Cultural Heritage (including architectural and archaeological heritage)
- Soil and Landscape

The baseline data gathered by the SEA team was readily available, relevant data. Particular reference was given to those aspects of the environment which are experiencing particular plan-related problems.

The full baseline data is presented in **Section 3 – Characteristics of the Existing Environment in Clongriffin – Belmayne (North Fringe)** of this report.

2.5 Environmental Protection Objectives, Targets and Indicators

SEA objectives, referred to as Environmental Protection Objectives, are a recognised way of testing the environmental effects of the local area plan. They serve a different purpose from the objectives of the local area plan, though in some cases they may overlap. The environmental protection objectives are used to demonstrate whether the local area plan will have a negative, positive or no impact on the environment, to compare the environmental effects of alternative plan scenarios and to suggest improvements if necessary.

For the purposes of the environmental assessment of the local area plan, relevant environmental protection objectives were set by the SEA team having regard to environmental protection objectives established in law, policy, other plans or programmes and from an in-depth knowledge of existing environmental issues to be addressed. Each environmental receptor had between one and four associated environmental protection objectives. For each objective a target was assigned along with measurable indicators which allows for monitoring.

Section 4 of this report sets out the Environmental Protection Objectives, Targets and Indicators set by the SEA team.

2.6 Identification, Description and Consideration of Alternatives

Article 5 of the SEA Directive requires the plan-making authority to identify, describe and evaluate alternative ways of realising the objectives of the plan. As stated in the Directive “*an environmental report shall be prepared in which the likely significant effects on the environment of implementing the plan, and reasonable alternatives taking into account the objectives and the geographical scope of the plan or programme, are identified, described and evaluated.*” Article 13E of the SEA Regulations 2004 require the identification, description and evaluation of the significant effects on the implementing the plan, and reasonable alternatives and, in accordance with Schedule 2B an outline of the reasons for selecting the alternatives.

Dublin City Council, as the plan-making authority, was obliged therefore to consider alternative ways of achieving the objectives of the local area plan for Clongriffin –Belmayne (North Fringe). SEA involves a systematic and explicit appraisal of alternatives.

For the purposes of the preparation of the local area plan, three possible realistic alternatives were identified, described and tested against the environmental protection objectives. These three alternatives are as follows:

- Reissue the North Fringe Action Area Plan 2000
- Don't prepare an LAP and allow the Z14 land use zoning objective as the mechanism for development of the area
- Develop a framework for proper planning and sustainable Development of Clongriffin- Belmayne

The alternatives were considered reasonable, realistic, capable of implementation and set at the appropriate level at which the local area plan will be implemented operating within the planning hierarchy i.e. the higher the level of the plan the more strategic the options which are available.

Section 5 of this report sets out the details of the Alternatives identified,

Section 6 details the evaluations of the identified local area plan alternatives

2.7 Assessment of the Impact of the Local Area Plan on the environment

In accordance with the SEA Directive, the likely significant effects on the environment of implementing the local area plan must be assessed. In line with best practice, as set out in the SEA guidelines, the local area plan team as a whole carried out the assessment of the likely significant effects of the plan by testing policies and, as a precautionary measure, objectives contained within the local area plan against the environmental protection objectives devised by the SEA team. Policies and objectives were determined to have ‘A Significant Beneficial Impact’, ‘A Significant Adverse Impact’, ‘An Insignificant Impact / or No Relationship with’ or an ‘Uncertain Impact’ on the environmental receptors. The evaluation of the policies is set out in

Section 7 of this report contains the findings of the detailed evaluation of the preferred alternative against the Environmental Protection Objectives.

2.8 Mitigation

Annex I of the SEA Directive requires the Environmental Report to include measures envisaged to prevent, reduce and as fully as possible offset any significant adverse impacts on the environment of implementing the plan. These measures are referred to as 'mitigation' measures. These mitigation measures include proactive avoidance of adverse effects on the environment as well as actions taken after any negative effects are noticed.

Section 8 of this report describes the measures devised to mitigate against any potential significant impacts of implementing the Clongriffin- Belmayne (North Fringe) LAP 2012-2018.

2.9 Monitoring

The significant environmental effects of the implementation of the local area plan must be monitored in order to identify at an early stage unforeseen adverse effects and to allow for appropriate remedial action to be undertaken. A monitoring programme has been devised having regard to the existing monitoring mechanisms currently in place in Dublin City Council.

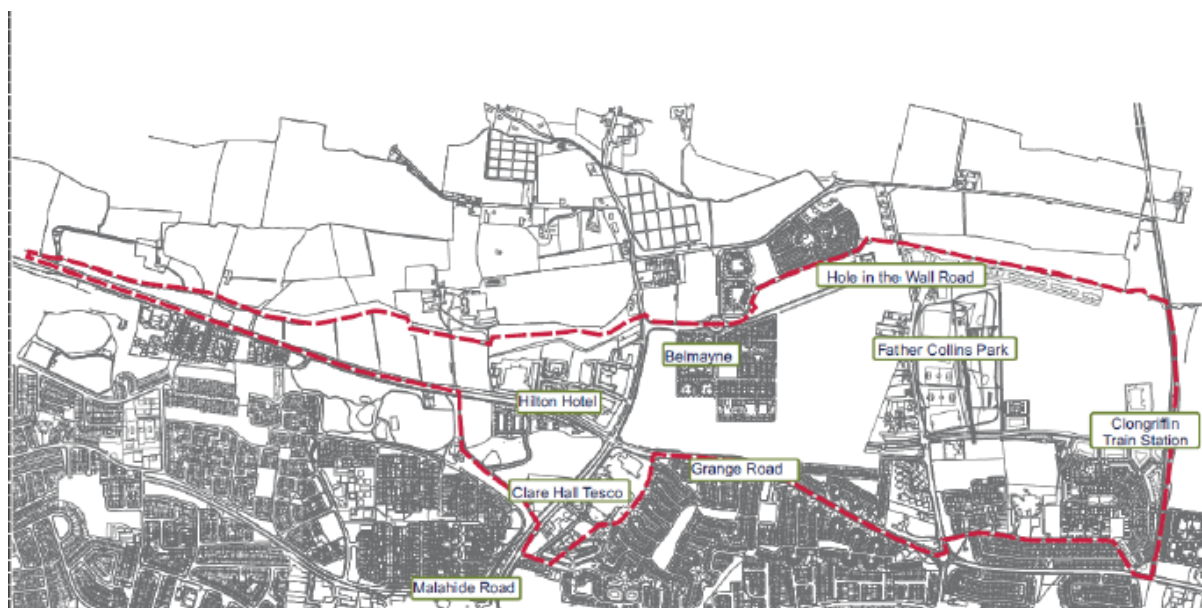
Section 9 of this report sets out the Monitoring Programme.

Section 3

3.0 Environmental Baseline



Map 1 Location of LAP within the context of Dublin City



Map 2 Location of LAP within the context of the local environs

3.1 Relevant Aspects of the Current State of the Environment

The baseline data refers to the state of the existing environment of the area. The main purpose of describing the existing environment is to identify the current state of the environment, against which the likely effects of implementing the local area plan can be assessed. The impacts of the local area plan can be estimated as the difference in environmental conditions with or without implementation of the plan. The existing environment is characterised by way of a description of the environmental receptors as set out in SEA Directive i.e.

1. Population
2. Biodiversity, Flora and Fauna
3. Water
4. Air (air quality and noise)
5. Climatic Factors
6. Material Assets (transport and waste management)
7. Cultural Heritage (including architectural and archaeological heritage)
8. Landscape
9. The interrelationship between environmental receptors 1-8

3.2 Population & Human Health

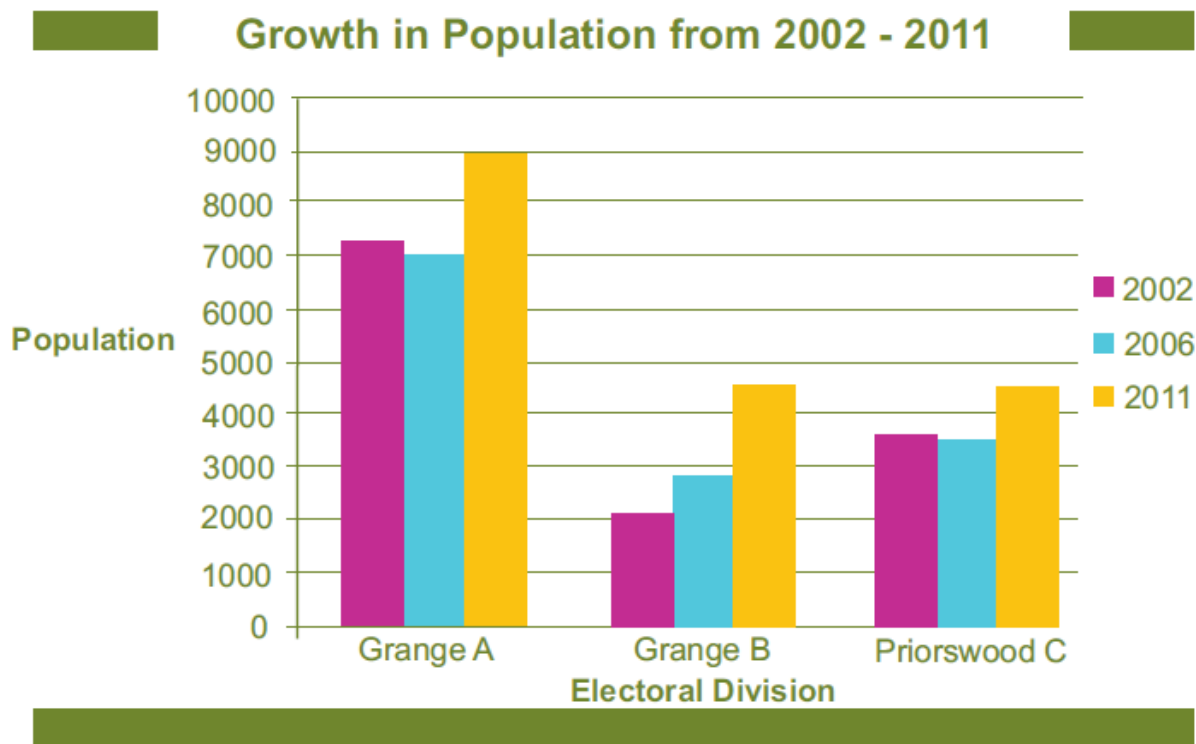
The LAP boundary and related context area takes into account the Electoral Divisions (ED) of Grange A, Grange B and Priorswood C. The population of Grange A, Grange B and Priorswood C was recorded as 13,477 persons in the 2006 Census. Grange B alone recorded a growth of 34% between the census period 2002-2006 in contrast with a decline of 3% and 2% for Grange A and Priorswood C respectively.

With respect to the wider area, the overall population was recorded as 25,008 persons in the 2006 Census. The ED's that comprise of the adjoining suburban neighbourhoods did however record a decline of on average 8% in contrast to the overall city growth of 2.1%. Grange B therefore was the only ED with an increase in population between 2002-2006 within the wider neighbourhood.

The same area is recorded as 18,025 persons in the preliminary Census 2011 figures. It is notable that each ED in the study area recorded significant growth over the period 2006-2011. Grange A and Priorswood C both recorded a 27% population increase in contrast to a decline over the previous census period. Grange B, the location of Clongriffin and Beaupark, recorded a significant population increase of 58.8%. Grange B has consistently recorded the highest levels of population growth in the local area over two Census periods.

The Wider area is recorded as 29,090 persons in the preliminary Census 2011 figures. This growth can be attributed to those ED's with new residential developments. The adjoining suburban neighbourhood recorded a modest increase of 0.8% in Ayrefield and a decline of 7.4% and 9% for Priorswood B and Grange C.

It is evident therefore that population growth for this part of Dublin City Council area can be attributed largely to new residential development that has occurred across the developing area of the North Fringe in contrast to the declining population levels in the established suburban neighbourhoods adjoining.



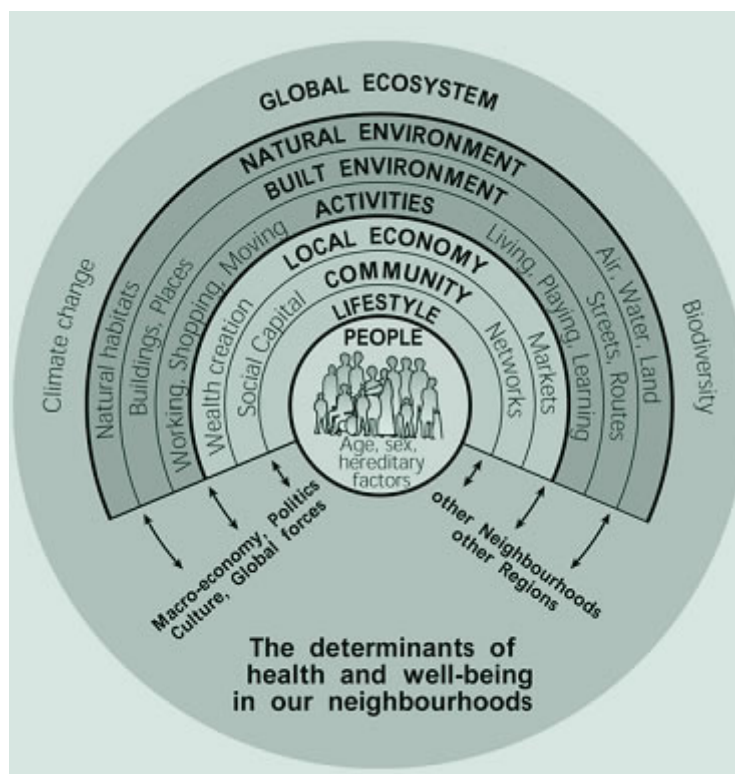
Source: CSO Small Area Population Statistics (SAP's)

FIG 1 Growth in Population from 2002-2011

Health

In 1999, the WHO described environmental health as comprising “those aspects of human health, including quality of life, that are determined by chemical, physical, biological, social and psycho-social factors in the environment. It also refers to the theory and practice of assessing, correcting and preventing those factors in the environment that can potentially affect adversely the health of present and future generations”.

The influence of environmental factors on human health is well established and can be easily demonstrated in the following diagram:



(derived from Whitehead, M and Dahlgren, G, 1991))

The European Environment and Health Action Plan 2004 – 2010 highlights the major role of health in long-term economic growth and sustainable development and the fact that citizen's are concerned about the potential impact of the environment on their health and expect policy makers to act. This includes the maintaining of air quality at a good standard, provide for good quality drinking water, protect biodiversity and natural heritage etc.

The human health impacts of relevance to SEA are those which arise as a result of interaction with other environmental receptors e.g. an over-concentration of pollutants in the air can have severe impacts on human health, excessive noise levels can seriously impact upon quality of life, a safe and constant supply of good quality drinking water is a basic component of a liveable area, the conservation of biodiversity is intrinsic to well-being, food production etc.

Specific information on health of the population is not readily available at the local level. The Department of Health have published key trend statistics for 2011 at the national level. These trends are can be applied to the population at the local level, namely that the principal cause are (i) diseases of the circulatory system, (ii) cancer and (iii) external causes of injury and poisoning (transport accidents, suicide).

3.2.1 Existing environmental issues relating to population & health

The following broad range of issues has been identified for population:

- The need to nurture a, mixed-use neighbourhood at sustainable densities that encourages the efficient use of urban land in the plan area.

- Issues with the availability of adequate infrastructure e.g. transport drainage, water wastewater infrastructure and capacity of the existing electricity network to serve the proposed increase in population.
- Possible transboundary impacts with future development in the adjoining local authority area of Fingal County Council (cumulative impacts).

3.2.2 Non-Implementation of the Local Area Plan

In the absence of the local area plan, the process for assessing and acting on development issues which affect all of the inhabitants within the area will go unchecked, resulting in deterioration in the environment. Planning for appropriate community & social facilities, educational facilities and infrastructure aided by demographic studies which is a key element of the Draft Plan may not be undertaken. Therefore, the target population increase will not be provided for by an adequate level of service provision.

3.3 Biodiversity, Flora and Fauna

Both within and adjoining the Clongriffin- Belmayne Area, there are many different habitats including rural, urban, coastal and marine habitats. The River Mayne is the only watercourse which traverses the plan area and it connects with the Baldoyle Estuary. A section of a new linear park along its course has been created. The linear park is important as a riparian corridor protecting the river channel and protecting its biodiversity. The estuary is of international ecological importance and it is designated a Special Area of Conservation, Special Protection Area, proposed Natural Heritage Area, a statutory Nature Reserve and a Ramsar site.

3.3.1 Protection of the Natural Heritage

There is a level of protection afforded to sites of biodiversity which are zoned Z9 within the plan area. Sites of international and national importance are protected under legislative designations. However, where there are areas of local importance or within other zoning designations, protection may be limited.

There are no EU habitat designated areas or natural conservation designations within the draft LAP boundaries but the location is close to the following sites in the Dublin area:

- North Bull Island SPA (#00406)
- South Dublin Bay & River Tolka Estuary SPA (#004024)
- Howth Head Coast SPA (#004113)
- Irelands Eye SPA (#004117)
- Baldoyle Bay SPA (#004116)
- Baldoyle Bay SAC (#000199)
- North Dublin Bay SAC (#000206)
- South Dublin Bay SAC (# 000210)
- Howth Head SAC (#000202)
- Irelands Eye SAC (#002193)
- Swords/Broadmeadow Estuary SPA (#004025)
- Malahide Estuary SAC (#000205)
- Glenasmole Valley SAC (#001209)
- Wicklow Mountains SAC (#002122)

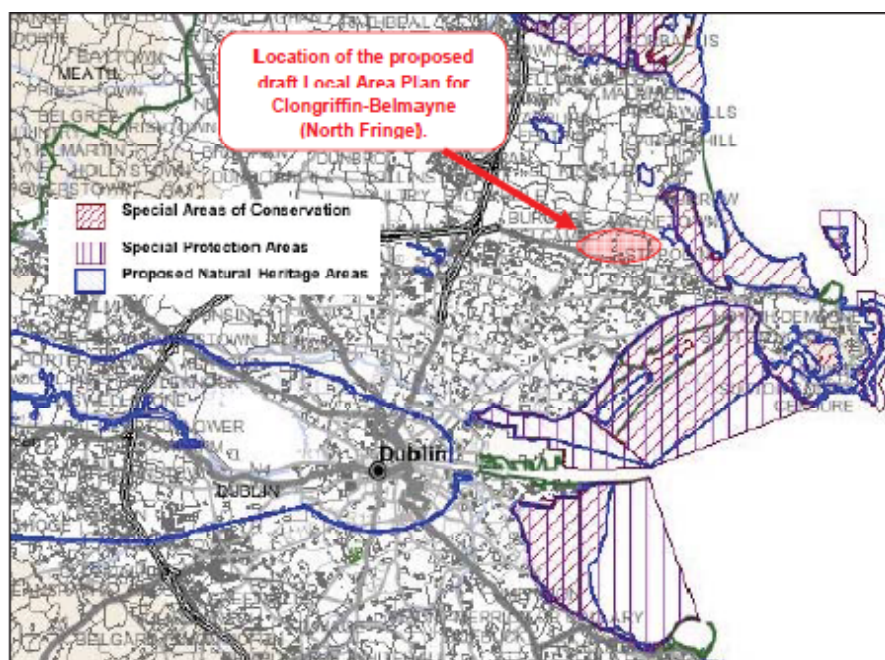
In particular, the study area is closest to the following conservation sites:

- Baldoyle Bay SPA (#004116)
- Baldoyle Bay SAC (#000199)
- North Dublin Bay SAC (#000206)
- North Bull Island SPA (#00406)
- Howth Head SAC (#000202)
- Howth Head Coast SPA (#004113)
- Irelands Eye SPA (#004117)
- Irelands Eye SAC (#002193)

The proximity of Baldoyle Bay SPA and SAC (approximately 0.9km distant to the east) in particular is noted and considered a positive asset of the location context for the study area. As part of the local area plan preparation an assessment under Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Fauna (commonly referred to as "The Appropriate Assessment) was undertaken. The purpose of this Appropriate Assessment is to determine whether the Draft Clongriffin- Belmayne (North Fringe) LAP is likely to have any significant impacts on the conservation objectives or qualifying features European Designated Natura 2000 sites identified within a 15 kilometre buffer of the LAP boundary.

Site Code	Site Name	Qualifying Feature
000199	Baldoye Bay SAC	Habitats listed on Annex I: Salicornia and other Annuals Colonizing Mud and Sand, Mediterranean salt meadows, Atlantic salt meadows, Mudflats and Sandflats not covered by seawater at low tide and <i>Spartina</i> Swards.
004016	Baldoye Bay SPA	Species: Light-bellied Brent Goose, Ringed Plover and Bar-tailed Godwit. Additional Special Conservation Interests include: Shelduck, Golden Plover, Grey Plover and Wetland & Waterbirds.

See Map 3 below which shows the location of the plan area in context with Special Areas of Conservation, Special Protection Areas and proposed Natural Heritage Areas designated in close proximity.



Map 3 The location of the Draft LAP lands in context with SAC's, SPA's and proposed NHA's

3.3.2 Biodiversity Action Plans

The Dublin City Biodiversity Action Plan 2008-2012 aims to raise awareness, co-ordinate with stakeholders and set out projects and actions to reduce biodiversity loss and enhance biodiversity value in the city. It provides a programme of actions to protect and enhance the city's natural heritage.

It is an objective of the Dublin City Development Plan to support and implement the Biodiversity Action Plan. Preparing the LAP provides the opportunity to incorporate measures from that plan that help to protect and enhance biodiversity within the LAP area.

The Fingal Biodiversity Action Plan 2010-2015 identifies the international ecological importance of the mudflats and salt marshes of Baldoye Estuary which is rich in species and biodiversity. The estuary is

a designated Special Area of Conservation, Special Protection Area, proposed Natural Heritage Area, a Statutory Nature Reserve and a Ramsar (wetland preservation) site.

The Fingal Biodiversity Action Plan also identifies the ecological importance of the River Mayne and protection of the River Mayne and protection of the river corridor for the movement of flora and fauna. Action No 42 of the plan states that a Masterplan for a linear park along the River Mayne will be prepared and implemented between both Fingal and Dublin City Council. The Masterplan will combine recreational and nature conservation requirements in such a way that allows both functions to be developed to their potential.

3.3.3 Father Collins Park

Father Collins Park is approximately 22ha and while it is characterised by sports, recreation and leisure facilities it is also recognised for its biodiversity. The park is enclosed by an ancient and protected hedgerow running the length of the northern boundary and existing woodland at the eastern boundary, the park already contains a species rich ecosystem. Wetland areas contain and treat water in the park within a series of reed beds, as part of a re-cycling system that both replenishes and keeps the main water feature clean. These wetlands contribute to the existing ecosystem, further encouraging biodiversity within the park.

3.3.4 River Mayne

The River Mayne being the only watercourse which traverses the plan area and connecting with the Baldoyle Estuary is an important surface water body in the area in terms of its biodiversity value.. The protection of the riparian corridor and creation of a buffer zone from development (by the way of a linear park) was an important feature of the original permitted developments for this area. To date a part of the linear park has been developed.

The Water Framework Directive identifies the surface water body status of the river which forms part of the Santry Mayne Sluice WMU as 'poor' in ecological terms. The management objective is to restore the surface water quality to 'good' by 2027. (See section 3.4 for analysis)

3.3.5 Current Environmental Monitoring Information

Dublin City Council currently surveys and monitors the habitats and species of the landscape of Dublin City fulfilling the statutory obligations under Irish and European legislation. This also assists in the management of public parks and open spaces.

A Butterfly Monitoring Scheme for public parks commenced in 2008 on a city-wide basis, to provide data for parks management and to contribute to the national Irish Butterfly Monitoring Scheme.

A Survey of Invasive Species was completed in 2009. The study area includes all watercourses in Dublin city, as the primary zone through which invasive plants can spread.

For 2009 - 2012, Dublin City Council is also participating in a pilot survey of populations of Daubenton's Bats along several watercourses in Dublin city. All species of bats in Ireland are protected under the Habitats Directive. These, along with data received from planning studies, will be collated into a city-wide database to monitor bat populations, which have been declining during the recent rapid urbanisation of parts of Dublin city and county.

3.3.6 Existing environmental issues relating to biodiversity, flora & fauna

There are many potential threats to the management of biodiversity, flora and fauna within the LAP area given that the area is in a state of transition (comprising of completed and vacant lands). The following broad range of issues has been identified:

- The need to balance accommodating development, recreational, heritage and biodiversity needs (interaction with population, human health, cultural heritage)
- Protection of designated areas and sites – in this case Baldoyle Bay (although not within the boundary of the plan area)
- Protection of areas or sites of high biodiversity quality not designated at national or EU level
- The need to maintain and enhance biodiversity in the area particularly at a local level
- Promoting multifunctional use, community access and use of green spaces and links to compliment walking and cycle routes
- Promoting an integrated and strategic process for the evaluation and co-ordinated delivery of Green Infrastructure (GI) projects
- Exploiting the GI potential of environmental areas and features within and adjoining the plan area e.g. parks, watercourses etc
- Promoting appropriate projects that improve biodiversity value of sites that are likely to remain vacant in the interim period of the LAP
- Need to ensure biodiversity interests taken into account in earliest stages of planning and development proposals
- Recreational uses can result in pressures on habitats and disturbance to certain species
- Importance of creating, maintaining and protecting ecological corridors to maintain biodiversity
- Co-ordination with Fingal County Council to respond to issues which are prevalent in the adjoining lands and wider environs outside the LAP boundary
- Improving water quality and the enhancement of the biological diversity of the River Mayne

3.3.7 Non-Implementation of the Local Area Plan

A non implementation of the LAP would potentially have a negative impact on biodiversity in the area. While the Dublin City Development Plan 2011-2017 includes policies for the protection and enhancement of biodiversity, these are more strategic in nature and at a higher level. However, the Draft LAP sets out the framework to guide the completion of this developing area and the integration and creation of parks and amenity spaces is a key priority. The Draft LAP includes a number of area specific measures which will enhance biodiversity value. In the absence of this LAP and its proactive policies and objectives, it is likely that further loss and degradation of habitats would occur. Furthermore, the survival of individual species of flora and fauna would also be threatened.

3.4 Water

The issues of water quality and water services (including supply, drainage and flooding) will be dealt with in this section.

3.4.1 Water Quality

With regard to water quality, the plan area is located within the Eastern River Basin District (ERBD). The river Mayne runs through the plan area discharging into Baldoyle Bay. As detailed in the ERBD, the pressures on the river Mayne which is located in the Santry Mayne Sluice WMU in the ERBD plan have been identified as high nutrients, oxygen demand, low ecological rating and inferior habitat. The main causes can be attributed to wastewater and industrial discharges, due to misconnected foul sewers, combined sewer overflows, urban area pollution. Under the officially adopted River Basin Management Plan, the river Mayne has 'bad' status and this must be improved to 'good' status by the end of 2027. The implementation of the programme of measures developed as part of the River Basin Management Plan is aimed at achieving this improvement in status.

Dublin City Council undertook an Investigative Monitoring Programme for the River Mayne Catchment as part of the LAP process. This is to facilitate the appropriate development of the area that has been significantly adversely impacted by the current economic situation. Additionally, the River Mayne is a reportable river under the Water Framework Directive. While a derogation to achieve good ecological status by 2027 has been obtained for the River Mayne, the water body into which the River Mayne discharges is an SPA which has a priority status of 2015.

At present, there is very little information on the water quality of the River Mayne, other than to say that, from a Dublin City Council perspective, it is impacted by urban runoff. The purpose of this investigative monitoring is to obtain up to date information on the physicochemical status of the river and to attempt to identify the significant pressures on the river.

An investigative monitoring programme was carried out over four weeks in March and April 2012. Samples were taken at a 12 locations between the M50/M1 junction and the railway bridge at Baldoyle. The first samples were taken on Wednesday, 21st March 2012 and continued weekly for a month (i.e. 21st March, 28th March, 4th April and 11th April).

The Investigative Monitoring Programme carried out on the River Mayne during March and April 2012 provides a snapshot of the quality of the water in the river. As the limits imposed on certain pollutants in the European Communities Environmental Objectives (Surface Water) Regulations, 2009 as measured as means or 95th percentile values, more data would be required to determine if the current status of the river satisfied the requirements of the Water Framework Directive. However, if the results in the current study are indicative of typical water quality in the river, then it would fail to meet the requirement of good status under the Water Framework Directive for Ammonia, Phosphorus and possible Biochemical Oxygen Demand (BOD).

FIG 2 shows a catchment map of the River Mayne and Cuckoo Stream.

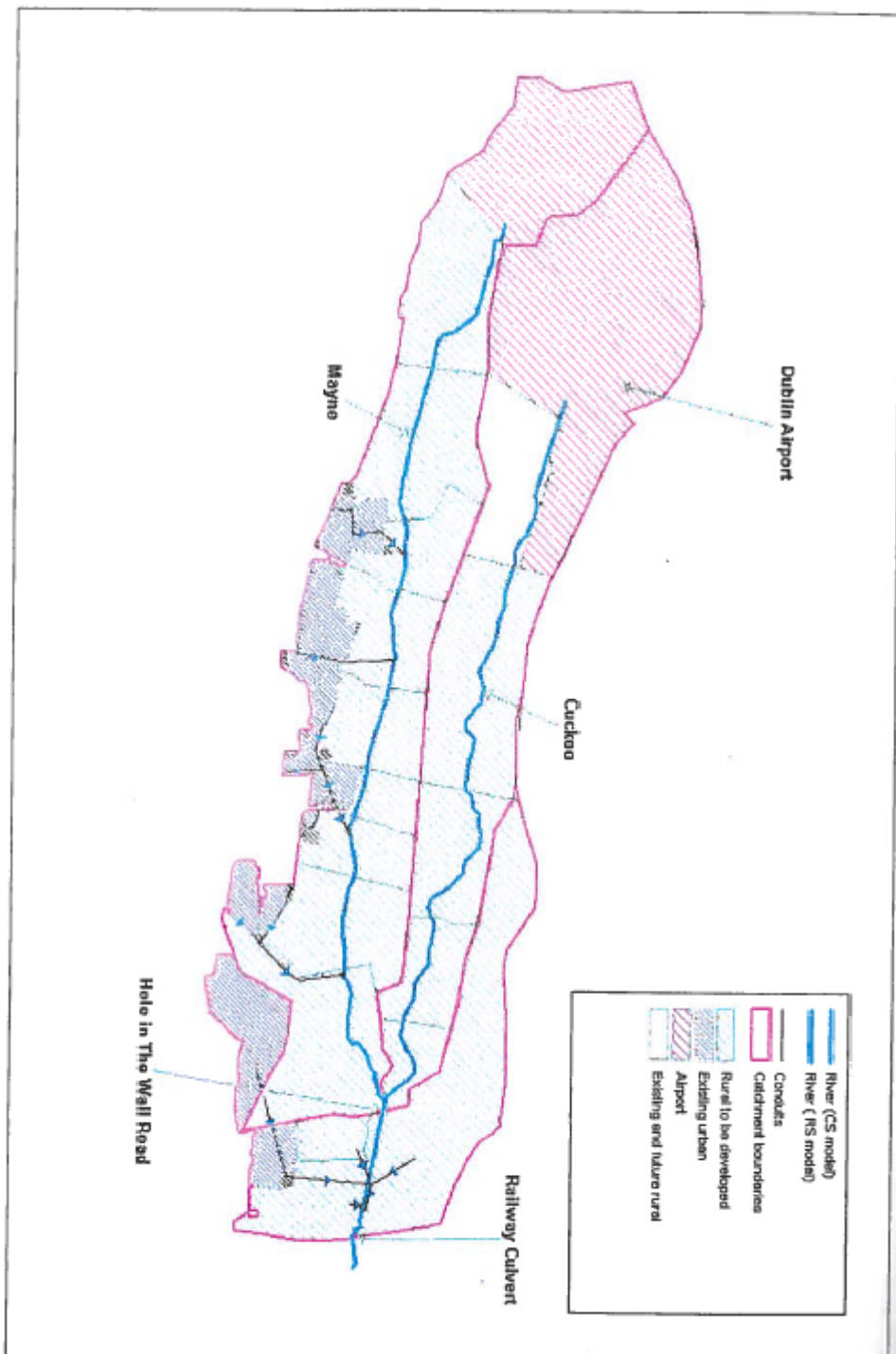


Figure 2 Infoworks CS model of River Mayne catchment



EX 4696 02/12/2002

3.4.2 Water Supply

Water supply for the North Fringe area is part of the Dublin Region Water Supply which is sourced from the Liffey, Dodder and Vartry rivers and is an integrated network covering Dublin City, and adjoining counties. Currently across the region supply and demand for high quality drinking water is finely balanced and this will remain the case in the short to medium term pending the delivery of a number of projects to increase production, storage and delivery capacity. In order to meet future demands, Dublin City Council has embarked on a study to determine a new major water source to meet projected demand in the long-term called the *Water Supply Project for the Dublin Region*. This project is studying the options of either using a desalination process to treat water from Dublin Bay or bringing water from the river Shannon via a new storage reservoir in the midlands. At a local level the existing water supply network for the North Fringe area is served by a 600 and a 450mm watermain which runs from west to east across the northern section of the proposed LAP area.

3.4.3 Drinking Water Quality

Drinking water comes from various different sources such as lakes, rivers, streams, springs and boreholes. Depending on the quality of its source, water will almost certainly have to be treated to make it safe to drink. All water suppliers for consumption must meet standards laid down by the EU. They must be free from micro-organisms, parasites, and any substances that endanger public health if found in sufficient numbers or concentrations. Water quality may be affected from a number of different sources including flooding, increased runoff from agricultural or residential development, a breakdown in treatment process, power outages, lack of proper filtration or disinfection equipment, and sometimes poor water quality is due to the water being drawn from an unsuitable source.

Dublin City Council is responsible for maintaining the public mains systems and ensuring the quality of the water they distribute. The Environmental Health section in each Local Health Office monitors water supplies on behalf of the local authority to make sure that all water sources meet the required public health standards. The HSE is also responsible for monitoring the fluoride content of public water supplies. The Environmental Protection Agency (EPA) produces a [yearly report on the quality of drinking water in Ireland](#). This report contains information from each local authority about the monitoring of the various water supply schemes in its area. The EPA has enforcement powers in relation to drinking water quality. These powers require public water suppliers (mostly local authorities) to notify the EPA and the HSE where there is a potential risk to human health, and to comply with their directions.

In the most recent report on drinking water quality in Ireland (2010) the Environmental Protection Agency has made the following assessment of the monitoring and quality of the water supply in Dublin City:

- Microbiological compliance in Dublin City public water supply increased from 99.9% in 2009 to 100% in 2010 whilst chemical compliance levels decreased from 99.8% in 2009 to 99.7% in 2010
- No non-compliances of microbiological parametric values occurred during 2010
- A total of 3 supplies recorded non-compliance in relation to the lead parameter which were attributed to the presence of lead communication pipes in the distribution network
- No boil water notices or water restriction notices were issued to consumers during 2010

- Two water supply zones in Dublin were added to the Remedial Action List. Both are mixed supplies that obtain water from the open storage reservoir at Stillorglin
- Chlorine monitors and alarms were in place on all Dublin City Council Public Water Supply networks in accordance with requirements set out

3.4. 4 Wastewater Network and Treatment

All foul sewage in the Greater Dublin Drainage Region is currently transmitted to the Ringsend Wastewater Treatment Plant (WWTP) for treatment. The Ringsend WWTP treats an average load of 1.9 million p.e. All of the sludge products generated are either recycled as a useful fertiliser, or used as a green energy source. Sampling and analysis of Ringsend Wastewater Treatment Plant effluent is carried out daily in fulfilment of the requirements of the Urban Wastewater Treatment Regulations 2001 (S.I. 254 of 2001).

The capacity of this plant to treat the volume and loading of wastewater created by the growing population is inadequate. Dublin City Council is currently finalising proposals to increase the capacity of the plant from 1.7 million PE (population equivalent) to 2.1 million PE, with a target completion date of 2015.

The Water Services Strategic Plan acknowledges that the development of a new Regional WWTP will be required in the longer term. Fingal County Council has carried out a separate Strategic Environmental Assessment on this and is working towards the provision of such a WWTP and associated trunk sewers and coastal outfall in the Fingal area. There is recognition of the need to upgrade the existing treatment plants and the drainage connection network in the region, to the ultimate capacity as set out in the Greater Dublin Strategic Drainage Study.

Under the Waste Water Discharge (Authorisation) Regulations 2007 (S.I. 684 of 2007) wastewater discharges above a certain threshold will have to be licensed by the Environmental Protection Agency. Dublin City Council currently has a licence application in respect of the discharge from Ringsend wastewater treatment plant with the EPA and will have to adhere to the discharge emission limit values that which will be set by the EPA. Local Authorities are expressly forbidden under these regulations from knowingly allowing further developments if these developments are likely to result in a deterioration in the status of any waterbodies.

In 2010, the Environmental Protection Agency granted a Discharge Licence to Dublin City Council under the Waste Water Discharge (Authorisation) Regulations (2007). Dublin City Council must comply with the conditions of this discharge licence. The ultimate objective of this licence is to restrict discharges from the wastewater network into rivers and waters. The 2007 Regulations also require that the Water Service Authority satisfies itself that there is drainage capacity available in the network prior to granting a planning permission for any development. This requirement will apply to all developments within the LAP

The North Fringe LAP is part of the North Fringe Sewer catchment which ultimately discharges to the Regional Waste Water Treatment Plant at Ringsend via the North Fringe Sewer. A major new trunk sewer (the North Fringe Sewer) was constructed in 2004 to serve most of the North Fringe Lands. It was designed to allow development occur in this area and is the main outlet for foul flows for most of the area under study. There are a number of branch sewers off the main sewer. The most significant branch sewers were on the Malahide Road and Grange Road.

The lands within the Draft LAP area are all part of the original design catchment for the North Fringe Sewer, and hence, at a strategic level, there is adequate capacity to facilitate development within this area. Any hydraulic deficiencies in parts of the older foul network are fairly localised and will be addressed as part of the normal development management process.

3.4.5 Flood Risk Management

Flooding is a natural process that can happen at any time, in a wide variety of locations. Where human development takes place within areas at risk of flooding it can have serious consequences. Increased flood risk can also arise from inappropriate development or design that is not itself within an area at risk of flooding. The main types of flooding are from (i) coastal flooding which arises from the sea or estuaries; (ii) fluvial flooding which arises from rivers or streams, (iii) pluvial or surface flooding which arises directly from rainfall, (iv) groundwater flooding and (v) overflows from dams and (vi) sewer/infrastructure failure.

The government issued guidance on flood risk management in 2009 – *Guidelines for Planning Authorities on the Planning System and Flood Risk Management* – which require the identification of key flooding issues that need to be addressed at the level of the LAP.

Dublin City Council is currently involved in two EU INTERREG funded flooding projects, the SAFER project - Strategies and Actions for Flood Emergency Risk Management and the Flood ResilienCity (FRC) Project. The SAFER project aims to develop computing flood hazard maps, develop flood emergency management systems and develop flood partnerships between the four participants, Gewässerdirektion Neckar, Germany, Forestry Commission Scotland, Federal Office for Water & Geology, Switzerland and École Polytechnique Fédérale Lausanne, Switzerland.

The Flood ResilienCity project is a flood risk management best practice project consisting of 11 partner organisations from 8 major European Cities each with an interest in promoting flood resilience in the urban environment. The project is to run until 2012 and is developing a flood risk management model based on engagement with politicians and policy makers, professional and the public to address the threat to Dublin from pluvial flood risk, the residual flood risk and how to adapt new resilient construction techniques.

The recommendations of the Greater Dublin Strategic Drainage Study regarding the use of Sustainable Urban Drainage Systems have been adopted and referenced in the Draft LAP.

The River Mayne is the primary river which runs to the north of the LAP lands. As part of the FEM FRAMS flood maps were produced for the River Mayne for the 1 in a 100 & 1 in 1000 probability of flooding. However, it should be stressed that there are other sources of flooding that are also a risk in the plan area such as pluvial, groundwater and sewers.

A Flood Risk Assessment (FRA) accompanies the Draft LAP. This assessment aims to identify and communicate to decision-makers and other stakeholders the risk of flooding to land, property and people in the plan area and provide sufficient information to determine whether particular developments are appropriate in the area. It will also set out flood risk zones for the area and ensures that the issue of flood risk is considered, and mitigated against where necessary, in the future development of the area. The general approach will be to avoid development in areas at risk of flooding, and where development in floodplains cannot be avoided, to take a sequential approach to flood risk management based on avoidance, reduction and mitigation of risk.

It should be noted that compliance with the requirements of The Planning System and Flood Risk Management Guidelines and of the Floods Directive 2007 60/EC is a work in progress and is currently based on emerging and incomplete data as well as estimates of the locations and likelihood of flooding. In particular, the assessment and mapping of areas of flood risk awaits both the publication of Preliminary Flood Risk Assessments [PFRAs] and the publication of Catchment-Based Flood Risk Assessment and Management Plans [CFRAMs]. As a result, the existing FRA for the LAP is based on this available information and may require revision as new information becomes available.

In essence, both the Water Framework Directive (WFD) and Floods Directive support integrated water management, on a river basin district approach. There is a strong relationship between flood risk management and meeting and promoting good functioning water systems.

3.4.5 Existing environmental issues relating to Water

The following broad range of environmental issues relating to water has been identified, which include localised as well as more strategic issues:

- The need to improve the water quality of River Mayne to comply with targets set out in the Eastern River Basin Management Plan and associated programme of measure. The Draft LAP will incorporate a specific policy in this regard
- Require new developments to implement stormwater management systems following the principles of Sustainable Urban Drainage Systems (SUDS)
- The need to conserve water and this to be highlighted in the Draft LAP
- To take into account the provisions of the guidelines on the Planning System and Flood Risk Management

3.4.6 Non Implementation of the Local Area Plan

Significant protection of groundwater and surface water resources is provided for at National, Regional and County level. In the absence of the Plan various legislation, the River Basin Management Plans, and the Dublin City Development Plan 2011-2017 will provide for significant protection and enhancement of water quality. However, the Draft Local Area Plan sets out specific objectives in relation to the enhancement and protection of the River Mayne. Furthermore, the Draft LAP sets out specific objectives for a number of key sites and a phasing and implementation plan. This approach ensures that wastewater and water supply infrastructure is available to accommodate the existing and future quantum of development envisaged for the area.

3.5 Air Quality & Noise

3.5.1 Air Quality

The Air Quality Framework Directive 96/62/EC has been transposed into Irish Law by the Air Quality Standards Regulations 2002 and the Ozone Regulations 2004.

With regard to air quality, there are a number of monitoring sites around Dublin city that are operated and maintained by the Dublin City Council. The Air Quality Standards Regulations have recently been replaced by the Clean Air for Europe (CAFÉ) Directive 2008 (2008/50/EC) which sets out the requirements for monitoring pollutants and the target values for each pollutant. Dublin's air quality is generally good according to the latest annual report issued by Dublin City Council's Air Quality Monitoring and Noise Control Unit for 2010. Levels of sulphur dioxide (SO₂), black smoke and carbon monoxide (CO) have been satisfactory while levels of nitrogen dioxide (NO₂) improved during 2010 compared with 2009. Black smoke monitoring is now carried out as a form of background monitoring (since the significant improvement in air quality with the introduction of the coal ban), using the benchmark of the EU Directive 80/779/EEC as a guide. The results for 2010 indicate that the sites all comply with EU limit values. However the levels of NO₂ remain a concern and will require particular attention in the coming years. NO₂ levels, primarily associated with traffic emissions, have been historically close to limit values in heavily trafficked areas in the Dublin region.

With regard to particulate matter (PM_{2.5} and PM₁₀), there were marginal increases in 2010 for PM₁₀, although no exceedances were noted. For PM_{2.5} limit values were exceeded on a number of occasions.

Pollutant	Main Sources in Dublin	Effects
Sulphur Dioxide (SO ₂)	Space heating from residential and industrial premises	Health impacts - breathing problems, worsening of respiratory and cardiovascular disease); precursor of acid rain
Nitrogen Dioxide (NO ₂)	Burning of fossil fuels in vehicles, industrial plant, power plants and other commercial and residential sources that burn fuel	Health impacts - irritates the lungs, lowers resistance to respiratory infection; precursor of acid rain, formation of ground level ozone and in the formation of photochemical 'smog'
Carbon Monoxide (CO)	Vehicular traffic	Health impacts – interferes with the distribution of oxygen in the blood
Particulate Matter (PM _{2.5} and PM ₁₀)	Vehicular traffic, dust from construction sites, construction equipment, crushing / grinding operations, tobacco smoke, wood burning stoves, and another home heating sources	Health impacts – particles evade the body's natural defence system

Table 2 Main Pollutants Affecting Dublin's Air Quality

EPA Air Quality Zones

The Air Framework Directive 96/62/EC (CEC, 1996) require that member states divide their territory into zones for the assessment and management of air quality. There are four zones identified in Ireland. Zone 'A' relates to Dublin and the air quality for zone A is classified as good. The nearest monitoring station to the Draft LAP area is located in Marino (approximately 5km from Clongriffin-Belmayne) which monitors PM.2.5 and is monitored by Dublin City Council. There is also a monitoring site in Swords, County Dublin which is approximately 9 km from Clongriffin- Belmayne.

Annual Mean PM₁₀ Concentrations (Source: EPA)

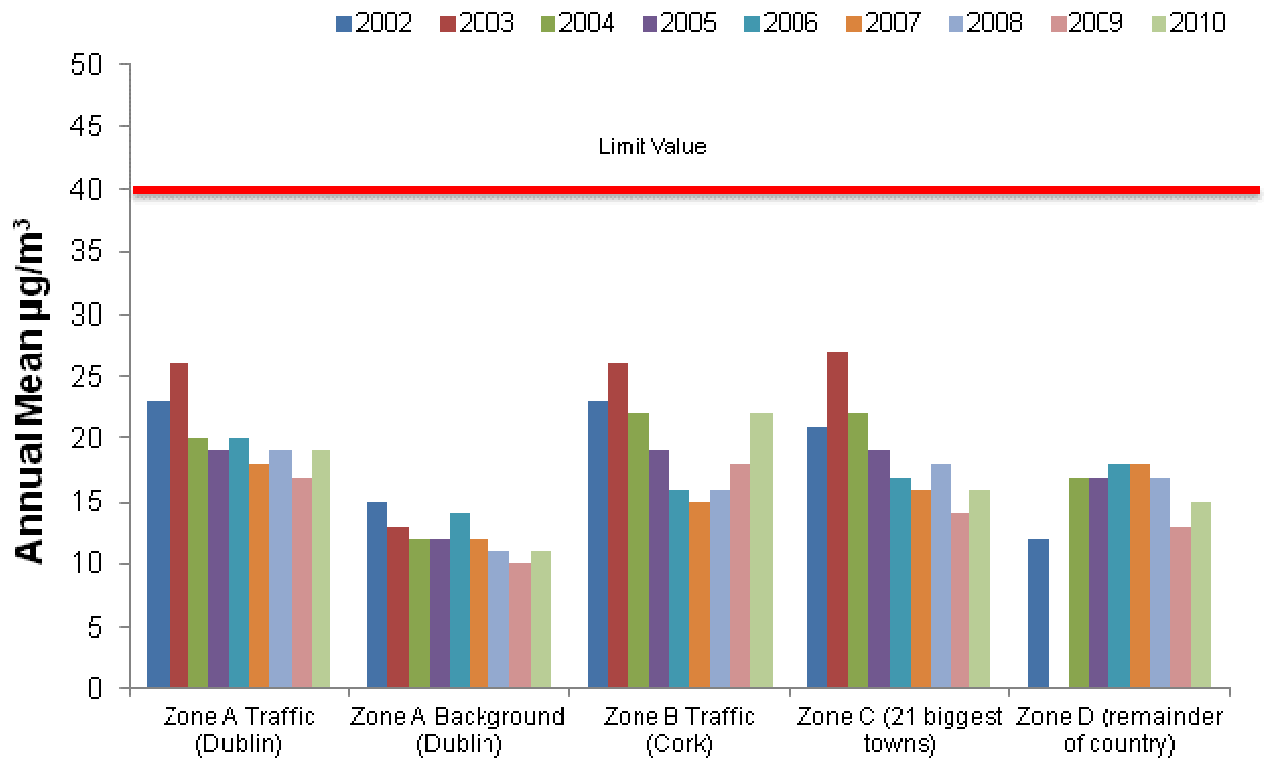


FIG 3 Annual Mean PM₁₀ Concentrations (Source: EPA)

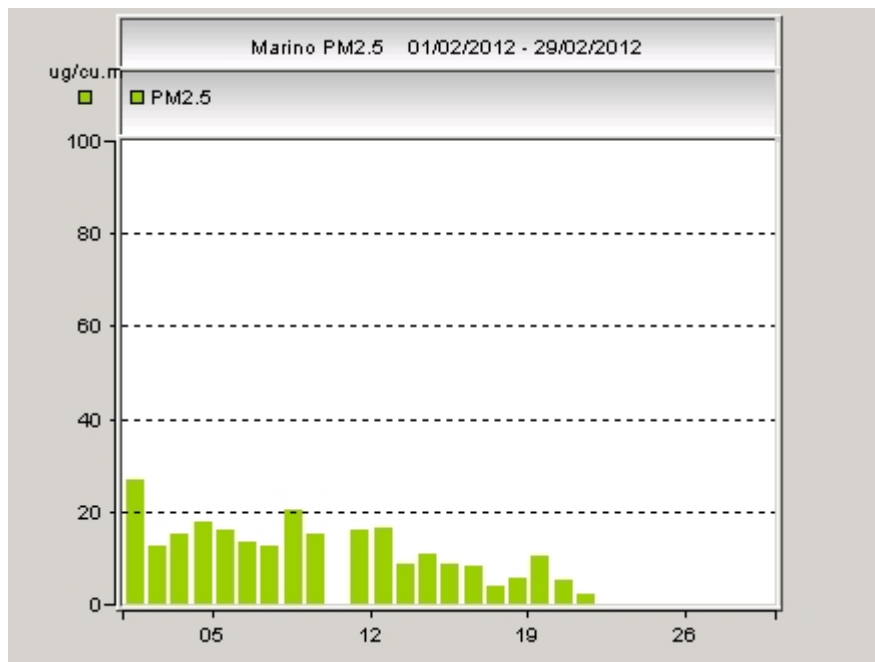


FIG 4 Particulate Matter Measured at Marino (Source: EPA)

- The annual target value for PM_{2.5} is 25 ug m⁻³. There is no daily limit value for PM₂

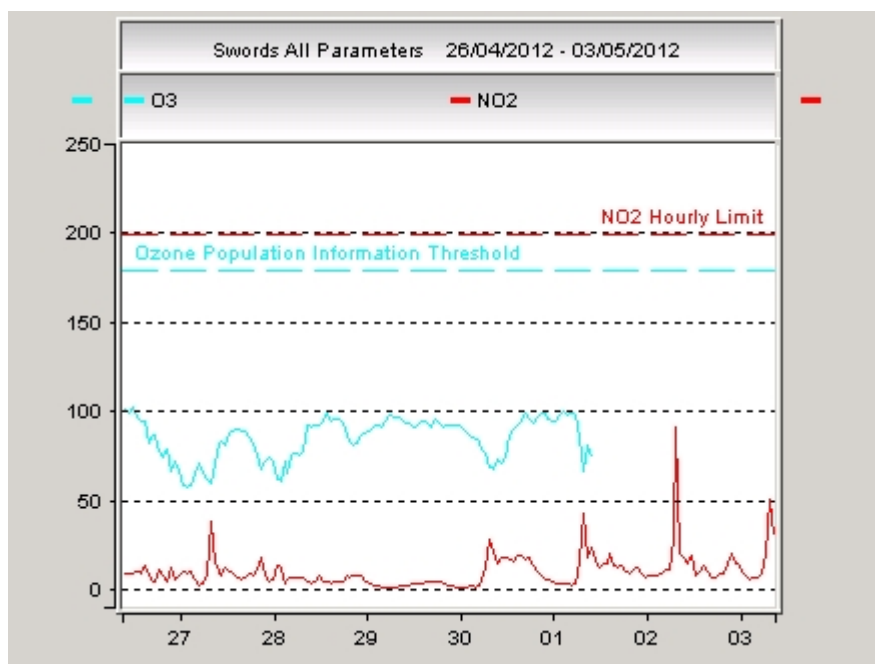


FIG 5 Nitrogen Dioxide and Ozone Levels in Swords, Co. Dublin (Source: EPA)

- The NO₂ hourly limit of 200 ug m⁻³ is deemed breached if more than 18 exceedances have occurred. There has been 1 exceedance at this site to date in 2012.
- The O₃ information threshold is 180 ug m⁻³. There have been 0 exceedances at this site to date in 2012.

(Data correct as of May 2012)

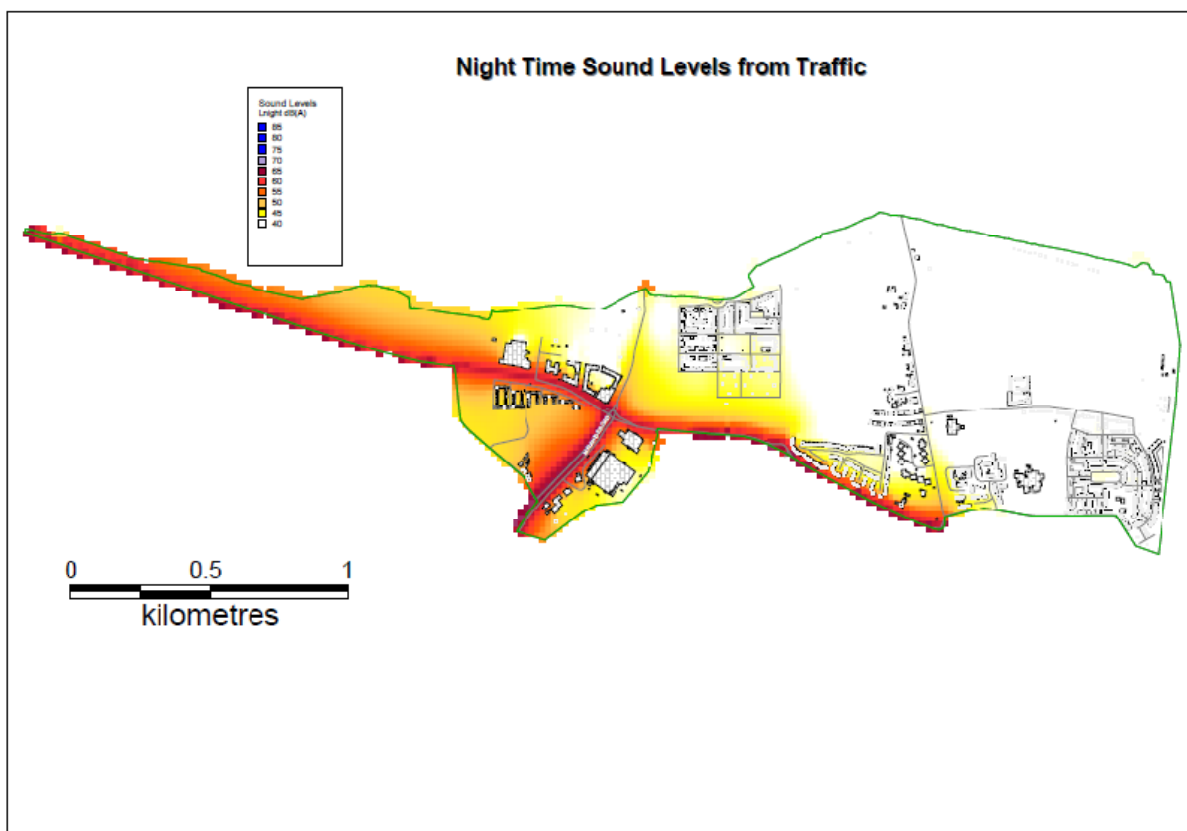
3.5.2 Noise

Dublin City Council as part of the requirements of the EU Directive on the Management of Environmental Noise and under the Environmental Noise Regulations S.I. No. 140 of 2006, has revised and upgraded their 'Noise Maps' for the 2012 base year. These maps are to be used to assess the number of people annoyed and sleep-disturbed respectively throughout Dublin. The maps are Strategic Noise Maps, and should be used for strategic, high level planning and not for the assessment of local noise nuisances.

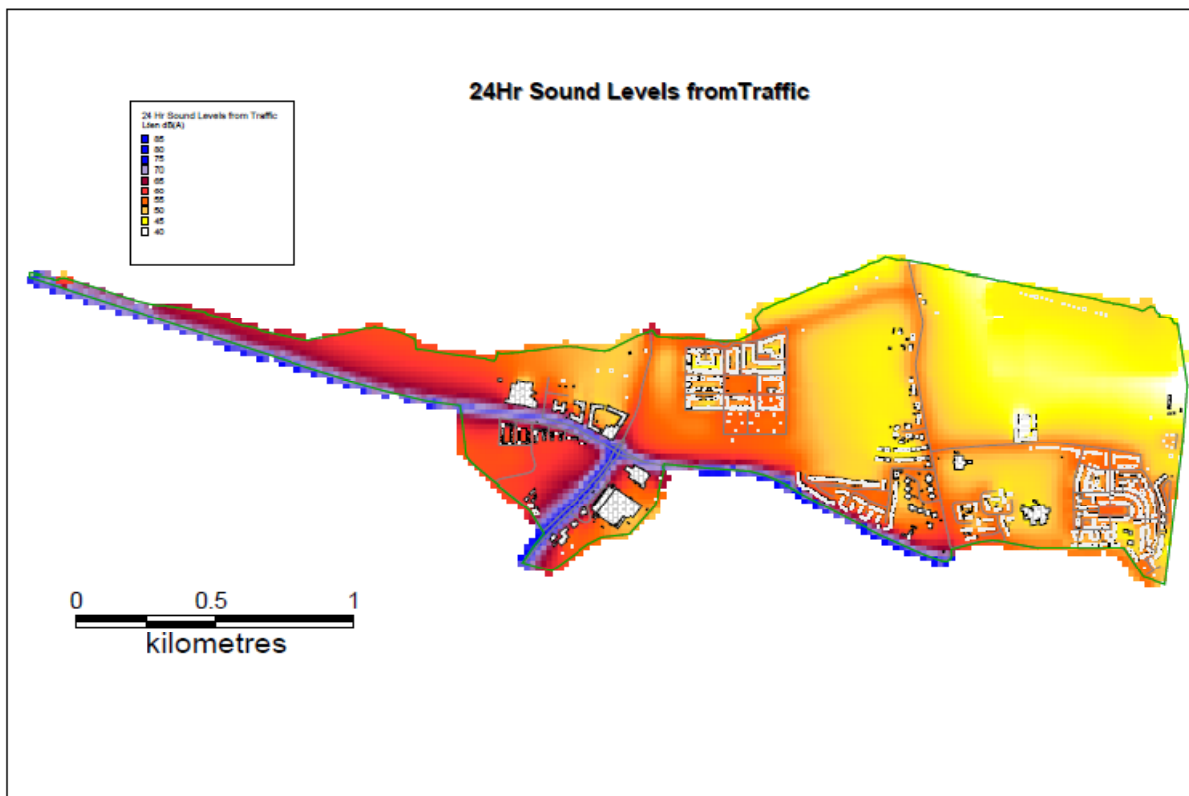
The 'Noise Maps' show colour coded areas in Dublin based on noise levels, in 5 bands. These increment in 5 decibels. The Night time band starts at 50 decibels and the 24 Hour band starts at 55 decibels. The EU Directive does not give an indication as to what level of noise is acceptable. This is left to each member state. At this point in time, Ireland does not have any statutory limit values, as is the case for air pollution. However in the current Noise Action Plan for the Agglomeration of Dublin, which is to be revised in 2013, it indicates that it is undesirable to have areas with a night time level greater than 55 decibels and a daytime level greater than 70 decibels. It identifies areas with desirable low sound levels as those area with a with a night time level less than 50 decibels and/or a daytime level less than 55 decibels.

Map 1(Night time levels) and Map 2(24Hr values) show the different colour coded noise bands within the LAP from Traffic sources. The main Dublin to Belfast rails passes to the eastern edge of this area. The Rail Maps have been revised for the 2012 base year. It has been estimated that there has been no significant change in sound emissions from this source over the 2007 base year. The most prominent sound emission sources in the area for this Local Area Action Plan are from the traffic sector.

From the 2012 noise maps it has been found that sound emissions from road sources were the dominant sound source. Although the 2012 maps indicate undesirable sound levels along the Grange Road, there are no residential properties falling within these bands. The residential property most impacted upon from traffic source sound emissions are those properties closest to the Hole in the Wall roundabout.



Map 4 Night Time Sound Levels from Traffic



Map 5 24 Hour Sound Levels from Traffic

Percentage Population exposure to Sound Levels From Traffic				
Decibel Band	DAY	Evening	Night	24 Hours
0-44	6	6	82	5
45-49	1	3	4	3
50-54	50	50	6	27
55-59	33	31	3	51
60-64	4	5	5	6
65-69	5	5	0	3
70-74	0	0	0	5
>55	42	41	8	65
>65	6	5	0	6
>=70	0	0	0	5
>=75	0	0	0	0

Table 3 Percentage Population exposure to Sound Levels from Traffic

From Table 1 it can be seen that for the area encompassed by the Northern Fringe LAP it is estimated that 58% of the population are exposed to sound levels below the 50\55dB desirable levels. It is also estimated that 8% of the population in the area are exposed to the undesirable night time value of 55dB, with no one being exposed to levels above a daytime value of 70dB

3.5.3 Existing environmental issues relating to Air Quality and Noise

The following broad range of environmental issues relating to Air Quality and Noise has been identified, which include localised as well as more strategic issues:

- Emissions of air pollutants, particularly from road traffic, remain the main threat to air quality; a modal shift from the private car to high quality public transport is required
- The levels of Nitrogen Oxide (NO₂) remains a particular concern and require special attention in the coming years
- Levels of Particulate matter (PM_{2.5} and PM₁₀), have marginally increased in 2010 and require close monitoring
- Requirement to reduce greenhouse gas emissions produced by human activities, particularly in transport and construction
- The need to ensure that new residential development is designed and constructed in such a way as to minimise noise disturbances, particularly from traffic, and the need to manage potential noise from other proposed uses such as shops, offices etc (e.g. air conditioning units) and from possible night time entertainment uses
- Recognition of the need to maintain the overall low level of noise where it exists while also reducing the high level of noise at 'noise hot spots' where relevant.

3.5.4 Non Implementation of the Local Area Plan

Air quality and noise are transboundary issues and largely outside the control of any one functional area or Local Authority. However, it requires a collective approach in order to counter the potential impacts in this regard. In the absence of the Plan issues may potentially arise through excessive commuting through a lack of coordinated transport policy, etc. in the absence of the LAP, there is little strategic direction or policy to facilitate modal shift, energy efficiency measures etc and potentially lead to a deterioration in air and noise quality.

3.6 Climatic Factors

Nationally, Ireland ratified the *UN Framework Convention on Climate Change* in 1994 and the *Kyoto protocol* in 1997. Under the latter Ireland has agreed to limit the net growth of Green House Gases (GHG's) to 13% above its 1990 levels. Currently the figure stands at 25% above 1990 levels and even with the current down turn in the economy and the associated reductions in emissions the projections are that the target will not be met.

European

For the period beyond 2012 the EU Councils of Ministers has agreed to an ambitious target of 20% reduction on 2005 GHG emissions levels, possibly increasing to 30% depending on other developed countries agreements. Ireland's contribution to this has yet to be defined.

National

The *National Climate Change Strategy* incorporates Ireland's international commitments into a range of actions that take into account commitments from government papers such as the *White Paper on Delivering a Sustainable Energy Future* and the *National Bio-Energy Action Plan*. There are numerous other directives that will have positive effects on climate change such as the *National Energy Efficiency Action Plan* etc.

At a national level the EPA has stated recently that Ireland would comfortably comply with its Kyoto 2008-2012 obligations, which commit the state to limiting emissions at 13 % above 1990 levels by 2012. The agency also predicted that CO₂ emissions would be significantly less than previously forecast last year. The reduction was primarily attributable to a reduction in transport emissions over the 2008-2012 period.

Local - Dublin City

In May 2008 Dublin City Council adopted a *Climate Change Strategy* that sets ambitious targets for the city toward 2020. In May 2009 the Lord Mayor of Dublin signed the EU *Covenant of Mayors* under which 500 European cities will aim to go beyond the EU 2020 targets of a 20% reduction in GHG's. The city council has also produced a *Sustainable Energy Action Plan 2010-2020* the aim of which is to reduce the city's energy consumption and associated emissions.

3.6.1 Current Environment

As part of this process of preparing the Sustainable Energy Action Plan for Dublin City it was necessary to estimate the current energy consumption and associated CO₂ emissions for the Dublin City Council area. The baseline was calculated between three sectors; Residential (32%), Commercial/Manufacturing (43%) and Transport (25%). **See Figure 6** below.

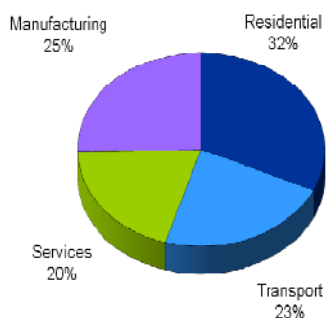


FIG 6 CO2 share per sector for Dublin City 2006

Waste and agriculture are not big emitters within the city boundaries. In 2006, Dublin city (12% of national population), released approximately 5 million tonnes (10.5% of all Irish emissions). On average a Dubliner releases 9.7 tonnes of CO₂ per year, less than the national average which is 11.3 tonnes.

By applying the national trend which is 8.5 Tonnes/Co2/capita/yr to the 2011 census figures it is estimated that the city emits 4.46 million tonnes of the greenhouse gas carbon dioxide (CO₂) per year. This will be used as a baseline figure for future monitoring.

3.6.2 Existing Environmental Issues Relating to Climatic Conditions

The following broad range of issues has been identified, which include localized as well as more strategic issues:

- Sustainable Energy Action Plan on Energy to be taken into account
- Reduction of CO₂ emissions required
- Greater co-ordination with the adjoining planning authorities in the Greater Dublin Region to respond to these shared regional issues set out

3.6.3 Non Implementation of the Local Area Plan

In the absence of the Local Area Plan issues may potentially arise through unsustainable transport patterns through a lack of coordinated transport policy, etc.. This would lead to increased emissions and ultimately to an exacerbation of the climate change problem.

3.7 Material Assets

For the purposes of SEA, Material Assets are deemed to include transport and waste management.

3.7.1 Transport

Road Network

A big challenge facing the North Fringe area is the road network. Substantial areas of the main road network have been developed to date in tandem with large developments. The Important transportation corridors in the plan area are to the east (rail line), south (Grange Road Extension) and west (the R107 Malahide Road and N32 which connects directly to the M1 and M50). The road network is however fragmented/incomplete due to the suspension of residential and other development arising from the economic downturn. There is an increasing need and desire to encourage other modes of transport. It is therefore a challenge for the plan to meet the growing demand for travel by sustainable forms of transport other than private car, i.e. by public transport, walking and cycling. In the North Fringe area, private car use is still dominant. 46% of the residents in the North Fringe use car as a means of travel to work, school or college (source Census 2006)

Rail

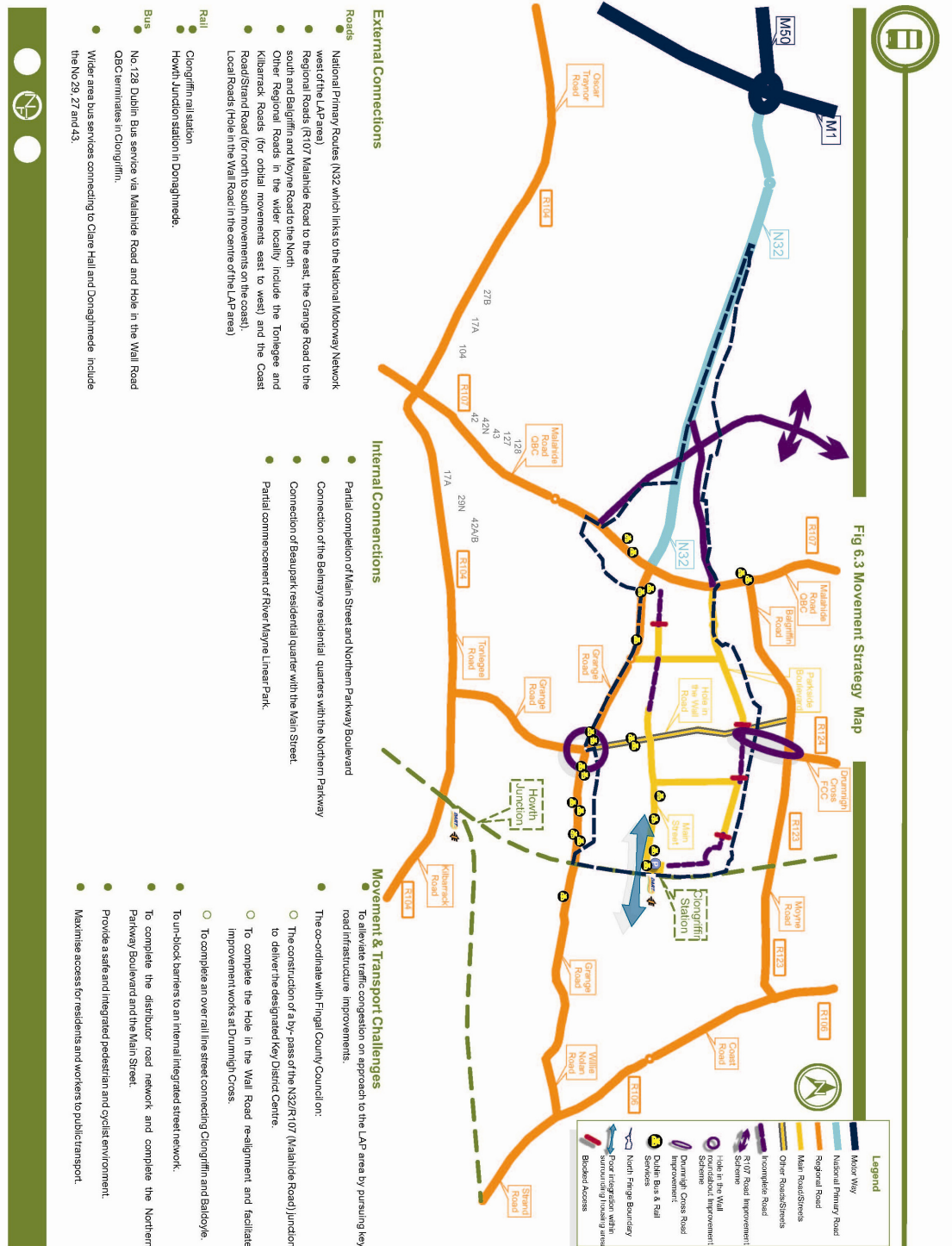
Clongriffin Dart Station was opened in 2010 and is situated along the Dublin-Belfast railway line. The station is located at the eastern end of the Local Area Plan Boundary. Approximately 80 trains serve the station on a weekday and approximately 36 on Sundays and public holidays.



Photo 1 Clongriffin Station

Bus Network

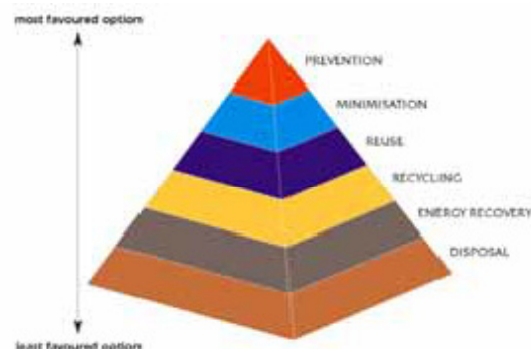
The area is served by a number of Dublin Bus routes including the No. 128 which terminates in Clongriffin. The No. 27, 29 and 43 serve the wider area connecting to Clare Hall and Donaghmeade.



Map 6 Transport Network

3.7.2 Waste Management

National waste policy is well established in Ireland with the foundation laid in the publication of Changing Our Ways in 1998. At the core of this national policy statement is the EU Waste Hierarchy with a preference for the prevention, reuse and recycling (including biological treatment) of waste ahead of energy recovery and landfill disposal. The waste sector is estimated to account for an estimated 2% of total green house gas emissions in 2009.¹



The Waste Management Plan for the Dublin Region 2005 – 2010 sets out the current regional policy framework for Dublin to progress the sustainable management of waste arising in the Region to 2010. The strategy in the Waste Plan aims to promote waste prevention and awareness, deliver maximum recycling, use thermal treatment for the treatment of residual wastes and by doing so minimize the use of landfill disposal.

The Dublin Waste Management Region (comprising of Dublin City Council, South Dublin County Council, Fingal County Council and Dun Laoghaire Rathdown County Council) has commenced an evaluation of the Dublin Regional Waste Management Plan 2005- 2010 and, consequent on this evaluation, the Plan will be revised or replaced as necessary to comply with the Waste Framework Directive (2008/98/EC) transposed through European Communities (Waste Directive) Regulations 2011 (S.I. 126 of 2011). The existing Dublin Regional Waste Management Plan must be evaluated by 31 December 2012.

Prevention and minimization, which aim to reduce waste at source, are at the top of the waste hierarchy and remain a priority with resources dedicated to awareness campaigns. The Dublin Local Authorities continue to invest staff and financial resources in waste prevention and awareness activities in the region.

Recycling remains central to the Waste Plan with a new Regional Materials Recovery Facility at Ballymount in South Dublin for the processing of all green bin recyclables. Regional Materials Recovery facility at Ballymount, Dublin 12 became operational in 2009. The regional MRF is designed to cater for the processing of green materials in the Dublin Region for the next 20 years. The facility has an annual capacity of 100,000 tonnes per annum.



An issue for recycling is developing recyclable markets as most materials are exported to foreign markets for reprocessing and recycling, as the quantities generated in Ireland do not provide the necessary economies of scale for indigenous reprocessing. In 2007, the DOEHLG Market Development Group published a 5-year programme for the stimulation of recycling markets.

Energy recovery is part of the management plan and the region will thermally treat residual waste with a new Waste to Energy Plant (6.2 hectares) in Poolbeg. The facility will be able to handle 600,000 tonnes of municipal waste annually. The facility will produce energy to meet the needs of approximately 50,000 houses in the form of energy supplied to the National Grid. The facility will also have the capacity to provide district heating for up to 60,000 homes. Planning permission, an EPA Licence and a licence from the Commissioner for Energy Regulation has been granted. A grid connection with the ESB and a Foreshore licence has also been granted.

In 2008, a Litter Management Plan was prepared and adopted by the City Council. The Plan deals with litter in five main headings, prevention and awareness, responsibility and partnership, Litter Management and Cleaning, Graffiti, and Enforcement.

In the Dublin Region, progress towards achieving the adopted waste targets has been steady. The municipal waste recycling rate is the headline indicator for municipal waste and a target of 45% by 2010 was set in the Regional waste plan 2005 - 2010. A municipal waste recycling rate of 47% was reached in 2010 and represents a 3% increase on the 2009 figure. The commercial sector continues to perform well with high levels of segregation of dry recyclable and packaging waste types driving recovery in this sector. The household recovery rate continues to progress with the use of green(dry recyclables) and brown bins(garden and food waste). The household waste recycling rate is a secondary indicator for municipal waste and increased to 44% in 2010 compared to 41% in 2009. The long term waste recycling target of 59% by 2013 remains a challenge.

Location of nearby recycling facilities in the context of the LAP area

- **Nearest Recycling Centre/Civic Amenity Site**

- Shamrock Terrace, North Strand, Dublin 1.
- Ringsend Recycling Centre, Pigeon House Road, Dublin 4.

- **Nearest Bring Centres**

- Oscar Traynor Road, Dublin 17.

- **Bottle Banks within the North Fringe Area**

- Bottle Bank Tesco Clarehall, Malahide Road, Dublin 17.
- Bottle Bank NABCO, Belcamp Lane, Dublin 17.
- Bottle Bank Trinity Sports Centre, The Hole In The Wall Road, Dublin 13.

3.7.3 Existing Environmental Issues Relating to Material Assets

The following broad range of issues has been identified for transport:

- To seek the completion of the existing road infrastructure network
- A stronger emphasis on sustainable forms of transport such as walking, cycling and public transport

- The need to further integrate transport and land use
- To improve accessibility and maximise the use of public transport in the area

The following broad range of issues has been identified for waste management:

- As the construction industry accounts for a quantity of waste generation, should the plan promote sustainable material use in development by developing relevant policies and standards
- Reuse of materials rather than the use of new materials in development; whether in any development, the planning authority should insist on a proportion of building materials being recycled materials, such as, concrete, brick, stone
- Use of renewable materials and those low embodied energy materials and low toxic materials: whether in any development, the planning authority should insist on a proportion of materials being from renewable sources
- Assessment of whole life environmental impacts
- Whether residential and commercial developments are providing sufficient quantity and high quality recycling facilities for waste sorting located conveniently for collection
- Ensure that guidelines and standards for the storage, segregation and removal of waste at individual development/site level are taken into account at the planning stage

3.7.4 Non Implementation of the Local Area Plan

In the absence of the LAP there would be no framework at a local level from a movement point of view. The existing road network would continue to be fragmented and remain incomplete. The absence of the plan would also result in the loss of potential for modal shift to other more sustainable forms of transport. This shift would contribute to a reduction in air and noise pollution and a healthier local environment in general.

3.8 Landscape

For the purposes of SEA, Landscape encompasses landscape and soil.

3.8.1 Landscape

The concept of landscape encompasses all that can be seen by looking across an area of land, i.e. it is the visible environment in its entirety. Landscape is the context in which all change takes place and helps to create a unique sense of place or identity within an area. The landscape is constantly changing, both through the actions of nature and human intervention, therefore the challenge is to bring about change and development that respects and enhances the landscape as opposed to detracting from it.

With regard to the landscape of the North Fringe Area, the green areas, the natural heritage and recreational amenities within the plan area have the potential to play a key role in creating and sustaining place.

Aerial views of the plan area depict a landscape in transition between completed and occupied development, complete and vacant development, semi completed works and vacant sites. However, Father Collins Park and a number of other smaller parks are dispersed throughout the plan area along with the River Mayne Linear Park are particular strengths of the local area and are a focal point for the community. Father Collins Park comprises of five wind turbines each having a rotor motor diameter of 15m and the overall height of each turbine to blade tip is 32.5m or 25m from ground level to the centre of the hub.

It should also be noted that the area affords views towards Howth, the rural area in Fingal with hedgerows and trees, River Mayne and the railway embankment. This is an important feature of the existing landscape at present. Potential redevelopment of sites in the area may have the potential to alter these views. It is considered appropriate that a landscape character assessment study of the area be undertaken during the life time of the LAP.



Photo 2 Example of the character of vacant sites and the transitional character of development in the LAP area

With Father Collins Park, smaller green spaces and the River Mayne Linear Park along with mature vegetation, future development and movement strategies have the potential to integrate and provide amenities for the benefit of all users. Within the undeveloped lands of the area a number of parks were proposed. The completion of these parks to integrate with other open spaces, movement routes and with adjoining landuses should be a priority. Taken together, these elements of the area's landscape present a wonderful opportunity to seek the completion of an integrated network of open space area as originally visioned. Key objectives of the LAP will be the implementation of the city's strategic Green network as it applies to this area through the creation of a coherent urban landscape and the opening up of existing spaces by way of increased connectivity.



Photo 3 Father Collins Park

Dublin City Council is currently preparing a landscape strategy for Dublin City's parks and landscape. This will further inform the SEA process.

3.8.2 Soil

Soil is defined as the top layer of the earth's crust. It is comprised of mineral particles, organic matter, water, air and living organisms. It is an extremely complex, variable and living medium which acts as the *interface* between the earth, air and water. Soil is an essential component of terrestrial ecosystems which fulfills numerous important functions, such as acting as a growing medium for plants, filtering and storing water, supporting biodiversity, nutrient cycling and acting as a foundation for built structures (Bullock and Gregory, 1991). In urban areas, human activities over time can alter soil's natural chemical and physical properties through the addition of organic and inorganic material, waste matter and the disturbance of soil through excavation and landscaping. This may lead to soil contamination.

The need for concerted soil protection in Europe was highlighted in 2006 when the European Commission adopted the Thematic Strategy for Soil Protection (Commission of the EC, 2006a). The strategy included a proposal for a Soil Framework Directive which aims to ensure the sustainable use of soil through measures including pollution prevention and the implementation of national inventories,

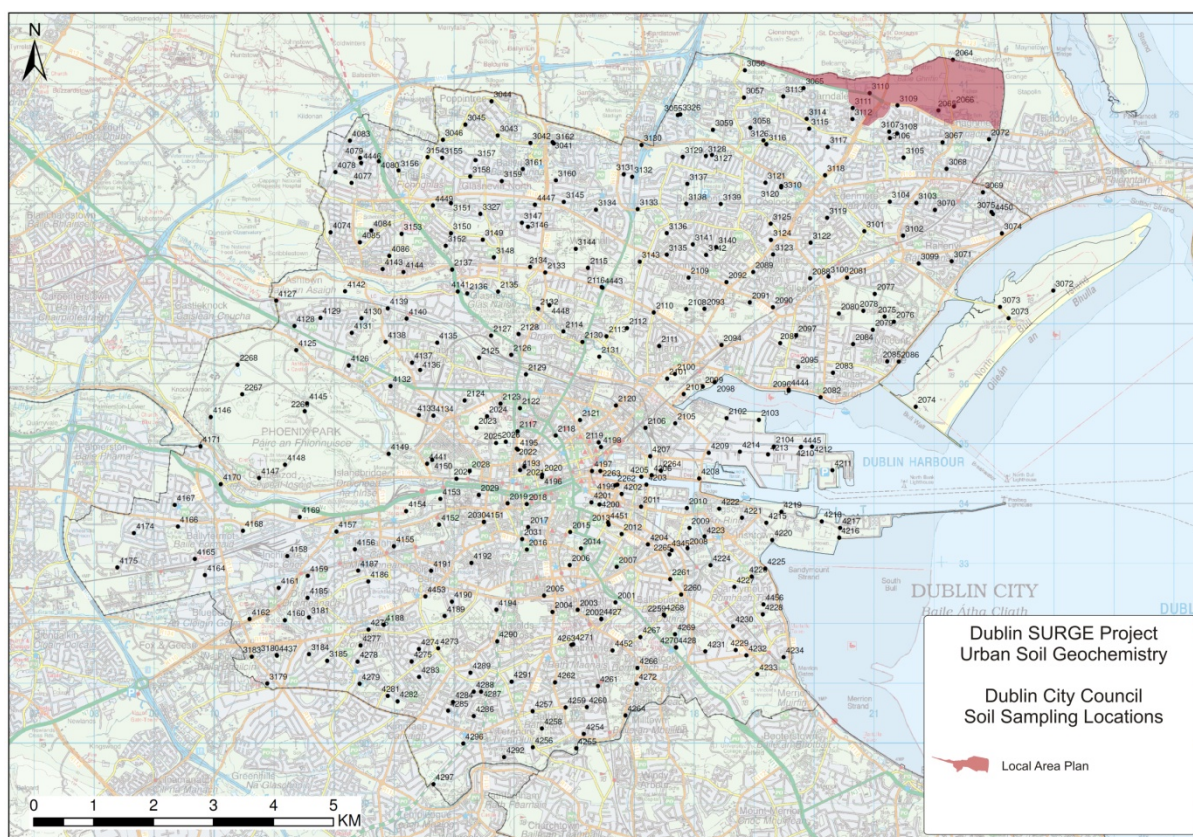
monitoring programmes and remediation strategies for contaminated sites in EU Member States. The proposal is currently under consideration by European institutions.

The function of soils in abating climate change is particularly important in a regional context for cities such as Dublin experiencing rapid growth beyond city boundaries. The conversion of greenfield sites and sealing of soils can release CO₂ into the atmosphere and further reduce areas of 'carbon sinks'. Soils contain about three times the amount of carbon globally as vegetation, and about twice that in the atmosphere. Land use planning must target the use of brownfield sites.

The existing baseline of data on soils in Dublin City has been developed by the Geological Survey of Ireland (GSI) in cooperation with Dublin City Council. This work has been in progress since 2009 under the SURGE Project and was completed in 2012. The project aims to create a baseline dataset of soil geochemistry in Dublin and assess the extent and nature of metals and organic chemicals in Dublin soils both natural and man-made. Geochemical maps of Dublin soils have also been produced which can be used for land use planning, environmental management and health risk assessment. This involved sampling of 1058 points of which 6 were within the boundary of the Draft LAP area. All samples were analysed for 31 inorganic elements including heavy metals. Of the 1058 samples taken, a subset of 194 samples were also analysed for the following persistent organic pollutants:

- Polycyclic aromatic hydrocarbons (PAHs) and
- Polychlorinated bipheyls (PCBs).

The sampling points were for the most part within public parks, open spaces and road margins.



Map 7 Soil Sampling Locations in Dublin City Council

DCC Parks and Landscape Services Division has provided access to sites and is preparing reports on site history for each sampling location. Detailed soils analysis and mapping of results is progressing and will inform the SEA once this information is made available to the Planning and Economic Development Department.

The SURGE Project report shows that the predominant soil type of the LAP area is Till (Carboniferous limestone). For the purposes of the study and to examine the spatial extent of soil chemical concentrations in Dublin, the city was divided into zones which account for the history and geography of different city areas. Clongriffin- Belmayne falls within the 'Inner Suburban Zone'. Results for heavy metals indicate that the concentrations of lead, copper, zinc and mercury are strongly influenced by human activities. PAHs were detected across the city, with maximum concentrations occurring in the city centre. Concentrations decline towards the outer suburbs. PAHs were detected across the city, with maximum concentrations occurring in the city centre. Concentrations decline towards the outer suburbs. Results for PCBs in soil indicate isolated, low level detections of PCBs in Dublin.

3.8.3 Existing Environmental Issues Relating to Landscape

The following broad range of issues has been identified for landscape and soils:

- The need to ensure the natural environment and open space amenities are connected and integrated as main features of the area's identity and character
- The need to protect important features of the wider landscape such as views for example views towards Howth, the rural area in Fingal with hedgerows and the railway embankment
- The need to diversify the existing landscape character through the creation of new open spaces including urban squares, wetland parks etc
- New developments which may not reflect the local landscape character
- Increase volumes of surface water run-off due to conversion of permeable landscapes to impermeable causes increased flooding, erosion and alteration of soils and their associated habitat
- Recreational uses can result in pressures on soils and their habitats, including erosion
- Lack of protection and mitigation of impacts of construction on soils, causing soil structural degradation and compaction

3.8.4 Non Implementation of the Local Area Plan

In the absence of the LAP there would be no framework directing developments to appropriate locations within the area. The Draft LAP includes policies and objectives to seek the development of vacant and unfinished development sites and therefore protecting existing greenfield sites. It is likely that without the Draft LAP that further damage could be done to soils and geology and that the management and remediation of brownfield sites would be limited.

3.9 Cultural Heritage (including architectural and archaeological heritage)

3.9.1 Built Heritage

There is a limited amount of built heritage features within the LAP boundary. However, it is important to note the significant conservation heritage that bounds the LAP lands to the west and comprises the significant Belcamp College lands. While the college lands are outside the boundary of the plan it provides an important built heritage feature which is of importance for local identity, heritage preservation and a potential amenity asset. Grange Abbey is a ruined abbey dating back to the 13th and 14th century and the ruins bound the LAP area to the south.

3.9.2 Archaeological Heritage

The archaeological heritage within the area is located around four zones of interest. It is within these zones that archaeological features are likely to occur. The zones relate to enclosure sites, church site and a possible castle site. The LAP presents an opportunity to protect the archaeological heritage of the area and highlight the past historic and cultural landscape.

The table below shows information on known sites and monuments within the LAP area. The data is derived from the National Monuments Service, Department of Arts, Heritage and Gaeltacht.

Townland	SMR Code	Type
Grange	DU015-097	Burnt Mound
Grange	DU015-096	Burnt Mound
Balgriffin Park	DU015-062002	House
Balgriffin Park	DU015-062003	Building
Grange	DU015-063	Enclosure
Grange	DU015-064001	Enclosure

Table 4 Sites and Monuments Record for LAP Area

3.9.3 Existing Environmental Issues Relating to Cultural Heritage

The following broad range of issues has been identified for cultural heritage:

- To preserve and enhance the setting and character of the built heritage of the area including Grange Abbey and Belcamp College and to ensure future development has regard to the historical value of these sites
- To promote the in-situ preservation of archaeology within the LAP area where possible

3.9.4 Non Implementation of the Local Area Plan

Although there are no protected structures within the Draft LAP boundary the absence of the plan and its policies would result in a potential loss of historic fabric and character to the condition of structures just outside the plan boundary. The Draft LAP presents an opportunity to preserve the archaeological heritage of the area and highlight the past historic and cultural landscape. Furthermore, the more intangible aspects of cultural heritage including identity and sense of place may not be promoted and supported as strongly in the absence of the plan.

SECTION 4

4.0 Environmental Protection Objectives

SEA Environmental Protection Objectives are measures used to show whether the objectives of a local area plan are beneficial to the environment, to compare the environmental effects of alternatives, or to suggest improvements. If complied with in full, the environmental objectives set should result in an environmentally neutral impact from implementation of the plan. The environmental protection objectives, which usually express a desired direction of change, are established for each of the environmental receptors and are often aspirational in nature. They serve a different purpose from the objectives of the draft local area plan, though they may overlap with them in some cases.

The SEA Directive requires the identification of objectives relevant to the plan only, so a process of selection was necessary. Objectives set have been adapted to the local circumstances and environmental issues of the North Fringe Area and in some cases Dublin city (more strategic issues). The environmental protection objectives set for the SEA have been derived from environmental protection objectives which have been established in law at international, European Union, national and local level and from a review of baseline information and the environmental problems identified by the SEA team.

It is necessary to devise accompanying targets for the objectives set. Targets set aims and thresholds which should be taken into consideration to effectively assess the impact of the local area plan on the environment. These targets once breached would require remedial action.

Along with the targets, indicators have also been devised. Indicators are those measures used to track the achievements of the Environmental Protection Objectives towards the particular targets set and to monitor the impact of the local area plan on the environment.

Table 5 below details the Environmental Protection Objectives set for the protection of each of the environmental receptors. It should be noted that all environmental protection objectives set impact on population and human health.

Table 5: Environmental Protection Objectives, Targets and Indicators

ENVIRONMENTAL RECEPTOR	ENVIRONMENTAL PROTECTION OBJECTIVE
Population and Human Health	PHH To protect and enhance people’s quality of life based on high quality residential, community, working and recreational environments and on sustainable travel patterns.
Biodiversity/Flora & Fauna	BFF To protect and enhance the diversity and range of habitats, species and wildlife corridors/green corridors
Water	<p>W1 To comply with EU Water Framework Directive to ensure and maintain good ecological status of all receiving water in the LAP area</p> <p>W2 To reduce and manage the risk of flooding</p> <p>W3 To provide adequate wastewater treatment, water distribution networks and drainage networks</p>
Air Quality & Noise	<p>AN 1 To protect good air quality status and minimise all forms of air pollution (i.e. Nitrogen oxides & Particulate Matter)</p> <p>AN2 To maintain and, where possible, improve the good acoustical quality for the current and future residents of the plan area</p>
Climatic Factors	CF To minimise emissions of greenhouse gases
Material Assets	<p>MA1 To reduce traffic levels by encouraging modal change from car to more sustainable modes of transport such as public transport, walking & cycling</p> <p>MA2 To reduce the generation of waste and adopt a sustainable approach to waste management</p>
Landscape & Soils	<p>LS1 To conserve and enhance valued natural landscapes and features within them including those of geological value</p> <p>LS2 To protect, improve and maintain the quality of soils and give preference to the re-use of brownfield lands, rather than developing greenfield sites</p>
Cultural Heritage	CH To protect and conserve the cultural heritage including the built environment and settings; archaeological (recorded monuments, architectural structures, materials and urban fabric) and manmade landscape features

SECTION 5

5.0 Identification of Local Area Plan Alternatives

Article 5 of the SEA Directive requires the plan-making authority to identify, describe and evaluate alternative ways of realising the objectives of the plan. As stated in the Directive “an environmental report shall be prepared in which the likely significant effects on the environment of implementing the plan, and reasonable alternatives taking into account the objectives and the geographical scope of the plan or programme, are identified, described and evaluated.”

5.1 Identification of Alternatives

It is standard practice when devising a plan that various ways of fulfilling its objectives are considered. Dublin City Council, as the plan-making authority, is obliged therefore to consider alternative ways of achieving the objectives of the local area plan for Clongriffin - Belmayne. SEA involves a systematic and explicit appraisal of alternatives. The alternatives considered must be reasonable, realistic, capable of implementation and also set at the appropriate level at which the plan will be implemented, operating within the planning hierarchy i.e. the higher the level of the plan the more strategic the options which are likely to be available.

A workshop was held with the SEA team and local area plan team to consider alternative ways of delivering on objectives of the local area plan.

For the purposes of the Draft Local Area Plan, three possible realistic alternatives have been identified and described, reflecting the need to achieve the following objectives:

- To provide effective guidance for the completion of developments previously permitted in the local area over the last 10 years or so
- To assist the completion of important social, physical and green infrastructure to service existing communities
- To address the issues of vacancy and interim proposals on lands not likely to be completed with development in the medium to long term
- To connect and integrate communities adjacent to the LAP area including the Clarehall and Donaghmeade neighbourhoods in the Dublin City Council area and the Baldoyle-Stapolin neighbourhoods in Fingal County Council

5.1.1 Alternative 1 – Reissue the North Fringe Action Area Plan 2000

This option proposes to reissue the North Fringe Action Area Plan which was published in June 2000 and use this as the tool to guide development in the area. The objective of the plan would be as it was in 2000 to provide a coherent urban structure, provide a distinct identity for the area and integrate new and existing communities. An emphasis on maximising linkages between the Dublin City Council and Fingal County Council lands would be a key objective. The plan would advocate an urban model placing public transport, increased densities and a mix of uses at its core.

5.1.2 Alternative 2 – Don't prepare an LAP and allow the Z14 land use zoning objective as the mechanism for development of the area

This option would see the Z14 land use zoning objective as the only mechanism for influencing how the area would develop. The objective of the Z14 zoning is to seek the social, economic and physical development and/or rejuvenation of an area with mixed use, of which residential and Z6 would be the predominant uses. Z6 zoning is to provide for the creation and protection of enterprise and facilitate opportunities for employment.

5.1.3 Alternative 3 – Develop a framework for proper planning and sustainable Development of Clongriffin- Belmayne (Preparation of an LAP)

The preparation of an LAP would provide an updated strategy on how the area should be developed and managed in line with best practice in sustainable urban planning to meet the needs of all existing and future residents. The LAP would focus on policies and mechanisms that would deliver necessary physical, social and environmental infrastructure for the local area. It would also set out interim priorities to improve the quality of life for the existing community and address the challenges caused by the decline in the economy.

SECTION 6

6.0 Evaluation of Local Area Plan Alternatives

6.1 Introduction

Article 5 of the SEA Directive requires the Environmental Report to evaluate the alternatives identified i.e. “.....reasonable alternatives taking into account the objectives and geographical scope of the plan or programme, are identified, described and evaluated.”

6.2 Testing the Local Area Plan Alternatives

The three identified alternatives have been identified as per **Section 5**. These three alternative scenarios have been assessed against the set Environmental Protection Objectives.

The environmental objectives have each been given a unique code e.g. BFF equates to the objective ‘To protect and enhance the diversity and range of habitats, species and wildlife corridors/green corridors’ and so forth. This allows for ease of legibility and reference in the assessments matrices as set out in **Appendix 1**.

Table 6 below sets out the Environmental Protection Objectives alongside their unique shorthand code.

Table 6: Environmental Protection Objectives, Targets and Indicators

ENVIRONMENTAL RECEPTOR	ENVIRONMENTAL PROTECTION OBJECTIVE
Population and Human Health	PPH To protect and enhance people’s quality of life based on high quality residential, community, working and recreational environments and on sustainable travel patterns.
Biodiversity/Flora & Fauna	BFF To protect and enhance the diversity and range of habitats, species and wildlife corridors/green corridors
Water	W1 To comply with EU Water Framework Directive to ensure and maintain good ecological status of all receiving water in the LAP area W2 To reduce and manage the risk of flooding W3 To provide adequate wastewater treatment, water distribution networks and drainage networks
Air Quality & Noise	AN 1 To protect good air quality status and minimise all forms of air pollution (i.e. Nitrogen oxides & Particulate Matter) AN2 To maintain and, where possible, improve the good acoustical quality for the current and future residents of the plan area
Climatic Factors	CF To minimise emissions of greenhouse gases
Material Assets	MA1 To reduce traffic levels by encouraging modal change from car to more sustainable modes of transport such as public transport, walking & cycling MA2 To reduce the generation of waste and adopt a sustainable approach to waste management

Landscape & Soils	<p>LS1 To conserve and enhance valued natural landscapes and features within them including those of geological value</p> <p>LS2 To protect, improve and maintain the quality of soils and give preference to the re-use of brownfield lands, rather than developing greenfield sites</p>
Cultural Heritage	<p>CH To protect and conserve the cultural heritage including the built environment and settings; archaeological (recorded monuments, architectural structures, materials and urban fabric) and manmade landscape features</p>

Table 7 and **Section 6.3** below contain the detail of the evaluation of the three alternative draft local area plan alternatives as tested against each of the environmental protection objectives using the following key:

SYMBOL	IMPACT ON ENVIRONMENT
+	Potentially Significant Beneficial Impact on the status of the Environmental Protection Objective
-	Potentially Significant Adverse Impact on the status of the Environmental Protection Objective
0	No Relationship with, or an Insignificant Impact on, the status of the Environmental Protection Objective

Environmental Receptor	Environmental Protection Objectives	Alternative 1 – Reissue the North Fringe Action Area Plan 2000	Alternative 2 – Don't prepare an LAP and allow the Z14 land use zoning objective as the mechanism for the development of the area	Alternative 3 – Develop a framework for proper planning and sustainable Development of Clongriffin-Belmayne (Preparation of an LAP)
Population / Human Health	<i>To protect and enhance people's quality of life based on high quality residential, community, working and recreational environments and on sustainable travel patterns</i>	<p>-</p> <p>This option would likely have a negative impact on population/human health as the original North Fringe Action Area Plan was published prior to the first planning permissions being granted in the area. Given the economic downturn and the number of undeveloped sites along with the fragmented road network it is felt that the Action Plan would not be robust enough to meet the needs/requirements of the existing and future residents of the area.</p>	<p>-</p> <p>Allowing the Z14 land use zoning objective as the mechanism for development of the area would potentially have a negative impact on population/human health.</p> <p>The economic downturn has impacted on progress and phasing of development. Many planning permissions which were granted will expire in the coming years and therefore will remain undeveloped or partially developed. Many key services such as retail developments and infrastructural projects may not proceed.</p>	<p>+</p> <p>The LAP would devise a strategy to improve the quality of life for the existing community and address the challenges caused by the decline in the economy, including the issue of vacant and partially finished development sites. A phasing strategy to complete infrastructure and development in a coherent manner would also be provided.</p> <p>The LAP would focus on maximising the connection potentials to and within the plan area. This would enable existing and future residents to move in a sustainable way.</p>

Environmental Receptor	Environmental Protection Objectives	Alternative 1 – Reissue the North Fringe Action Area Plan 2000	Alternative 2 – Don't prepare an LAP and allow the Z14 land use zoning objective as the mechanism for the development of the area	Alternative 3 – Develop a framework for proper planning and sustainable Development of Clongriffin-Belmayne (Preparation of an LAP)
Biodiversity/Flora & Fauna	<i>To protect and enhance the diversity and range of habitats, species and wildlife corridors/green corridors</i>	<p>-</p> <p>The Action Area Plan was based on 8 principle elements which are predominately based on urban design and movement. Little cognisance was given to the protection of biodiversity/flora & fauna apart from the River Mayne and the immediate surrounding tree belt. This plan would be non-statutory and would not have been informed by the SEA process or the requirements of the Habitats Directive.</p> <p>With increase in construction there is a likelihood that permeable landscapes are converted to hard surfaces which may lead to alteration and direct loss of habitat unless mitigated against</p>	<p>-</p> <p>This option would predominately result in individual planning applications being assessed in isolation and without due cognisance given to the role of biodiversity. There would be potential for a lack of joined up thinking in relation to the creation of green routes and corridors which would enhance biodiversity value.</p> <p>With increase in construction there is a likelihood that permeable landscapes are converted to hard surfaces which may lead to alteration and direct loss of habitat unless mitigated against</p>	<p>+ -</p> <p>The LAP would aim to balance the development of an urban environment with the protection and enhancement of the environment. The layout of new urban developments would be required to incorporate designs to enhance biodiversity value along with the requirement of high quality landscaping and the provision of quality open space.</p> <p>Opportunities to develop green corridors and networks as part of a co-ordinated approach.</p> <p>With increase in construction there is a likelihood that permeable landscapes are converted to hard surfaces which may lead to alteration and direct loss of habitat unless mitigated against. However, as sated above the policies and objectives of the LAP would require residential schemes/mixed use schemes etc to incorporate proposals to enhance biodiversity value</p>

Environmental Receptor	Environmental Protection Objectives	Alternative 1 – Reissue the North Fringe Action Area Plan 2000	Alternative 2 – Don’t prepare an LAP and allow the Z14 land use zoning objective as the mechanism for the development of the area	Alternative 3 – Develop a framework for proper planning and sustainable Development of Clongriffin-Belmayne (Preparation of an LAP)
<p>Water</p>	<p><i>W1 To comply with EU Water Framework Directive to ensure and maintain good ecological status of all receiving water in the LAP area</i></p> <p><i>W2 To reduce and manage the risk of flooding</i></p> <p><i>W3 To provide adequate wastewater treatment, water distribution networks and drainage networks</i></p>	<p>-</p> <p>Increased population placing increased pressures on the waste water infrastructure which is already close to capacity. This situation could potentially lead to deterioration in water quality if not mitigated against.</p> <p>-</p> <p>Urban design strategy designed and established prior to the implementation of OPW issued guidelines “The Planning System and Food Risk Management”. Potential for development in flood risk areas</p> <p>0</p> <p>Neutral impact on the provision of adequate water distribution and drainage networks</p>	<p>-</p> <p>Increased population placing increased pressures on the waste water infrastructure which is already close to capacity. This situation could potentially lead to deterioration in water quality if not mitigated against.</p> <p>+</p> <p>Development focused in designated and established areas whilst avoiding areas at risk of flooding. Up to date guidelines such as the OPW issued guidelines “The Planning System and Food Risk Management” and the FEM FRAMS would be used in the assessment of planning applications.</p> <p>0</p> <p>Neutral impact on the provision of adequate water distribution and drainage networks</p>	<p>-</p> <p>Increased population placing increased pressures on the waste water infrastructure which is already close to capacity. This situation could potentially lead to deterioration in water quality if not mitigated against.</p> <p>+</p> <p>Development focused in designated and established areas whilst avoiding areas at risk of flooding. Up to date guidelines such as the OPW issued guidelines “The Planning System and Food Risk Management” and the FEM FRAMS would be used in the assessment of planning applications.</p> <p>0</p> <p>Neutral impact on the provision of adequate water distribution and drainage networks</p>

Environmental Receptor	Environmental Protection Objectives	Alternative 1 – Reissue the North Fringe Action Area Plan 2000	Alternative 2 – Don't prepare an LAP and allow the Z14 land use zoning objective as the mechanism for the development of the area	Alternative 3 – Develop a framework for proper planning and sustainable Development of Clongriffin-Belmayne (Preparation of an LAP)
Air Quality & Noise	<p><i>AN 1 To protect good air quality status and minimise all forms of air pollution (i.e. Nitrogen oxides & Particulate Matter)</i></p> <p><i>AN2 To maintain and, where possible, improve the good acoustical quality for the current and future residents of the plan area</i></p>	<p>-</p> <p>The lack of a robust phasing strategy would potentially lead to unsustainable travel patterns if transport infrastructure necessary to support development is not provided. Thus leading to longer journeys being undertaken potentially in more unsustainable modes of transport.</p> <p>-</p> <p>The lack of a robust phasing strategy would potentially lead to unsustainable travel patterns if transport infrastructure necessary to support development is not provided. Thus leading to longer journeys being undertaken potentially in more unsustainable modes of transport.</p>	<p>-</p> <p>The lack of a robust phasing strategy would potentially lead to unsustainable travel patterns if transport infrastructure necessary to support development is not provided. Thus leading to longer journeys being undertaken potentially in more unsustainable modes of transport.</p> <p>+ -</p> <p>The lack of a robust phasing strategy would potentially lead to unsustainable travel patterns if transport infrastructure necessary to support development is not provided. Thus leading to longer journeys being undertaken potentially in more unsustainable modes of transport.</p>	<p>+</p> <p>The inclusion of a phasing strategy as part of the LAP would allow for accurate analysis and delivery of the required transport infrastructure in the area.</p> <p>Having a co-ordinated approach to the development of the area both in the long and interim term would lead to improvements and efficiencies in public transport and sustainable modes of transport resulting in modal shift from the private car. Thus having a greater impact on protecting good air quality.</p> <p>+ -</p> <p>Improvements and efficiencies in public transport in the area and an increase in sustainable modes of transport resulting in modal shift from the private car. There may be an increase in noise levels for some residents as the LAP would seek to facilitate the completion of the road network if not mitigated against.</p>

Environmental Receptor	Environmental Protection Objectives	Alternative 1 – Reissue the North Fringe Action Area Plan 2000	Alternative 2 – Don't prepare an LAP and allow the Z14 land use zoning objective as the mechanism for the development of the area	Alternative 3 – Develop a framework for proper planning and sustainable Development of Clongriffin-Belmayne (Preparation of an LAP)
Climatic Factors	<i>CF To minimise emissions of greenhouse gases</i>	<p>+ -</p> <p>The lack of a robust phasing strategy would potentially lead to unsustainable travel patterns if transport infrastructure necessary to support development is not provided. This would increase CO2 emissions</p> <p>Greater densities allowing for people to live in proximity to their place of employment thereby reducing the need to travel.</p> <p>Some increase in CO2 emissions as a result of building activity; opportunities to offset with the construction of buildings with greater energy efficiency.</p>	<p>+ -</p> <p>The lack of a robust phasing strategy would potentially lead to unsustainable travel patterns if transport infrastructure necessary to support development is not provided. This would increase CO2 emissions</p> <p>Greater densities allowing for people to live in proximity to their place of employment thereby reducing the need to travel.</p> <p>Some increase in CO2 emissions as a result of building activity; opportunities to offset with the construction of buildings with greater energy efficiency.</p>	<p>+</p> <p>Having a co-ordinated approach to the development of the area both in the long and interim term would lead to improvements and efficiencies in public transport and sustainable modes of transport resulting in modal shift from the private car.</p> <p>Furthermore, the LAP would propose a number of pedestrian and cycle paths and green corridors within the plan area which would further reduce the need for motorised travel.</p> <p>Some increase in CO2 emissions as a result of building activity; opportunities to offset with the construction of buildings with greater energy efficiency.</p>

Environmental Receptor	Environmental Protection Objectives	Alternative 1 – Reissue the North Fringe Action Area Plan 2000	Alternative 2 – Don't prepare an LAP and allow the Z14 land use zoning objective as the mechanism for the development of the area	Alternative 3 – Develop a framework for proper planning and sustainable Development of Clongriffin-Belmayne (Preparation of an LAP)
Material Assets	<p><i>MA1 To reduce traffic levels by encouraging modal change from car to more sustainable modes of transport such as public transport, walking & cycling</i></p> <p><i>MA2 To reduce the generation of waste and adopt a sustainable approach to waste management</i></p>	<p>+</p> <p>A key objective of the Action Plan is to achieve a movement strategy for sustainable development with a particular emphasis on modal shift.</p> <p>-</p> <p>Plans for an increase in population and increase in construction would have the potential to increase waste levels unless mitigated against</p>	<p>-</p> <p>This approach would have a negative impact on traffic levels as there would be no framework for a co-ordinated movement strategy for the area. Individual planning applications would be assessed in isolation.</p> <p>-</p> <p>Plans for an increase in population and increase in construction would have the potential to increase waste levels unless mitigated against</p>	<p>+</p> <p>A key element of the LAP would be to deliver a transport and movement strategy which would seek the completion of roads/streets and the opening of connections, in particular walking and cycling routes allowing for greater connectivity in the LAP area.</p> <p>+ -</p> <p>Plans for an increase in population and increase in construction would have the potential to increase waste levels unless mitigated against</p> <p>The LAP would promote the reuse of buildings</p>

Environmental Receptor	Environmental Protection Objectives	Alternative 1 – Reissue the North Fringe Action Area Plan 2000	Alternative 2 – Don't prepare an LAP and allow the Z14 land use zoning objective as the mechanism for the development of the area	Alternative 3 – Develop a framework for proper planning and sustainable Development of Clongriffin-Belmayne (Preparation of an LAP)
Landscape & Soils	<p><i>LS1 To conserve and enhance valued natural landscapes and features within them including those of geological value</i></p> <p><i>LS2 To protect, improve and maintain the quality of soils and give preference to the re-use of brownfield lands, rather than developing greenfield sites</i></p>	<p>-</p> <p>The Action Area Plan was based on 8 principle elements which are predominately based on urban design and movement. Little cognisance was given to the protection of landscapes. It should be noted that the Action Plan was published prior to any development taking place.</p> <p>+</p> <p>Concentrating populations into a designated area would allow for sustainable reuse of under-utilised brownfield sites whilst avoiding greenfield sites where possible.</p>	<p>-</p> <p>The lack of an over arching policy document for the area and the assessment of planning applications in isolation would potentially have a negative visual impact on, natural landscapes or result in a loss of natural elements of the landscape.</p> <p>-</p> <p>The lack of an over arching policy document for the area would put more pressure development to occur on greenfield sites as many existing planning permissions for sites in the area will expire in the coming years.</p>	<p>+</p> <p>The LAP would require new development to be targeted into designated areas which would protect/ lead to the enhancement of the landscape of the area.</p> <p>The valued landscapes and natural features of the area e.g. River Mayne corridor would be protected by robust policies and objectives.</p> <p>+</p> <p>Concentrating populations into a designated area would allow for sustainable reuse of under-utilised/vacant brownfield sites which currently exist in the area whilst avoiding greenfield sites where possible.</p>

Environmental Receptor	Environmental Protection Objectives	Alternative 1 – Reissue the North Fringe Action Area Plan 2000	Alternative 2 – Don't prepare an LAP and allow the Z14 land use zoning objective as the mechanism for the development of the area	Alternative 3 – Develop a framework for proper planning and sustainable Development of Clongriffin-Belmayne (Preparation of an LAP)
Cultural Heritage	<i>CH To protect and conserve the cultural heritage including the built environment and settings; archaeological (recorded monuments, architectural structures, materials and urban fabric) and manmade landscape features</i>	<p>-</p> <p>The Action Area Plan was based on 8 principle elements which are predominately based on urban design and movement. Little cognisance was given to the cultural and built heritage of the area. It should be stated that the Action Area Plan was published prior to the first planning permissions for development being granted.</p>	<p>-</p> <p>Potential encroachment into zones of Archaeological interest leading to a loss of irreplaceable fabric.</p>	<p>+</p> <p>Concentrating development into designated areas for development allows for the steering of development away from the Zones of Archaeological Interest.</p> <p>The LAP would allow for greater investment and initiatives for the enhancement and appropriate use of the area's built heritage balanced with the need to protect its cultural character</p>

6.3 Assessment of Alternatives

All three alternatives will place increased pressures on wastewater infrastructure, which in turn could potentially lead to deterioration in water quality and impact negatively upon biodiversity in the city if not mitigated against. However, all three alternatives are all reliant on the wastewater treatment infrastructure being upgraded as well as a new wastewater treatment plan coming on stream at regional level.

6.3.1 Alternative 1 - Reissue the North Fringe Action Area Plan 2000

This approach would present challenges for the majority of environmental receptors. While the North Fringe Action Area Plan 2000 sets out a spatial structure and a range of specific design objectives and principles against which development proposals would be assessed, it is considered that the plan is outdated. This plan was prepared to guide development across the area which in 2000 was predominantly a greenfield land bank.

Having regard to the economic downturn of the last number of years it is considered that the Action Area Plan is not robust or holistic enough to meet the challenges which are now facing the area. The developing lands are in a state of transition between completed and occupied development, complete and vacant development, semi completed works and vacant sites. Separate areas that did get developed are now disconnected from each other owing to the large vacant land banks and incompleteness of infrastructure. The Action Plan was not designed to deal with the current issues facing the area. Furthermore, the lack of a phasing strategy or an implementation plan would have a negative impact on both the current and future residents of the area and the overall environment.

6.3.1 Alternative 2 - Don't prepare an LAP and allow the Z14 land use zoning objective as the mechanism for the development of the area

This approach would present challenges for all of the environmental receptors. Allowing the Z14 land use zoning objective as the mechanism for the development of the area would likely direct future development on an ad hoc basis with no over-arching framework. It should be highlighted that many of the planning permissions granted in the area received ten year permissions. For those lands where phases of development have not commenced to date, the original permissions will expire in the coming years. This scenario would lead to a lack of certainty for the existing residents of the area and leave them without a framework for input to take on board community issues. Connections between communities in the area would not be provided for and it would also lead to unsustainable travel patterns as the completion of important transport infrastructure would not be undertaken. The existing vacant and underutilised lands would continue to remain in their current state with no action likely to be taken in the short to medium term.

6.3.1 Alternative 3 - Develop a framework for proper planning and sustainable Development of Clongriffin- Belmayne (Preparation of an LAP)

This approach would have the greatest benefit for the environmental receptors. The LAP would seek to guide the successful completion, in accordance with the principles of good planning and sustainable development, of the area and create positive integration between the developing area and neighbourhoods adjoining it. A special focus for the LAP would be the integration and successful connection between communities adjacent to the LAP area. The areas most likely to be affected by an LAP would be the vacant sites which were zoned

for development under the 1999 Dublin City Development Plan and permitted for development with EIA assessment (from 2002 onwards).

The LAP would promote positive integration of public open space with developments integration of amenity areas with the River Mayne and Fr Collins Park, two significant amenities within the area. Developing the vacant sites under the LAP would also provide the opportunity to connect new developments and park areas to Fr Collins Park and the River Mayne linear park via green routes. These routes would also provide opportunities for wildlife corridors and enhance the biodiversity value of the area.

6.4 Preferred Alternative

Based on the analysis of the alternative scenarios as detailed in table 6 and sections 6.2 – 6.3 above, the preparation of an LAP was selected as the preferred approach. This approach has been found to have the most positive impact on the environment.

SECTION 7

7.0 Evaluation of the Draft Clongriffin – Belmayne (north fringe) Local Area Plan

This section of the Environmental Report evaluates the policies and objectives of the draft local area plan and should be read in conjunction with the Evaluation Matrix set out in Appendix A. This evaluation assesses the likely or potential significant effects on the environment, i.e. on biodiversity, human health, fauna, flora, soil, water air, climatic factors, material assets, cultural heritage (including architectural heritage) and soils & landscape of implementing the Draft Clongriffin – Belmayne (north fringe) Local Area Plan.

These effects include secondary, cumulative, synergistic, short, medium and long-term, permanent and temporary, positive and negative impacts and these will be highlighted where relevant.

7.1 Evaluation Methodology

The assessment of the likely significant effects on the environment of implementing the draft local area plan was carried out, in accordance with best practice methodology. The methodology employed was the accepted and commonly used methodology of creating a matrix, whereby the policies and objectives of the draft plan area listed on one axis and the environmental protection objectives on the other. The policies and objectives of the draft local area plan were tested against the Environmental Protection Objectives developed earlier in the SEA process.

To avoid the Environmental Report being dominated by a series of complex matrices these detailed matrices have been included as an appendix in this report (see Appendix A) while a summary of the significant environmental impacts are provided in Tables 8 – 15 below. Potential beneficial and adverse impacts have been identified in line with the requirements of the SEA Directive. Potential effects of plan policies have been categorised as:

Potential to have:

- A 'Significant Beneficial Impact'
- An 'Uncertain Impact' on Environmental Receptor
- A 'Significant Adverse Impact' on Environmental Receptor
- An 'Insignificant Impact' or 'No Relationship'

7.1.1 Population and Human Health

The policies of the draft plan have been found to have overall significant beneficial and long term impacts on population and human health. The draft Plan focuses in particular on policies and mechanisms that deliver the necessary physical, social and environmental infrastructure for the local area. The draft plan also sets out interim priorities to improve the quality of life for the existing community and address the challenges caused by the decline in the economy, including the issue of vacant land banks. The plan emphasises the need to promote ease of movement within the area along with access to the area with a high quality integrated transport network.

The economic policies and objectives of the plan promote the strategic value of the area, seek to improve the physical and visual environment of the LAP area and in the longer term to promote progress in delivering key drivers for economic growth in a sustainable manner.

The environment and open space strategy focuses on creating sports and recreational areas, high quality parkland and private and communal open spaces. The strategy also aims to develop a series of recreational routes that will connect established and new communities together.

Overall the plan will ensure the future development of an area where people will choose to live and work.

Table 8: Summary of Potential Impacts of the Draft Clongriffin-Belmayne (north fringe) Local Area Plan on Population and Human Health

Draft Local Area Plan Policies & Objectives	Summary of Significant Impacts on Population and Human Health
Movement and Transport Strategy	Significant Beneficial and Long Term Impacts
Urban Design	Significant Beneficial and Long Term Impacts
Economic Development Strategy	Significant Beneficial and Long Term Impacts
Environment and Open Space Amenity Strategy	Significant Beneficial and Long Term Impacts
Community and Social Infrastructure Strategy	Significant Beneficial and Long Term Impacts
Culture and Tourism Strategy	Significant Beneficial and Long Term Impacts
Built Heritage Strategy	Significant Beneficial and Long Term Impacts
Infrastructure and Services Strategy	Significant Beneficial and Long Term Impacts
Sustainable Strategy	Significant Beneficial and Long Term Impacts

7.1.2 Biodiversity, Flora and Fauna

The draft plan was found largely to have potential for significant beneficial and long term impacts on the biodiversity, flora and fauna of the area. Overall the plan aims to provide effective guidance for the completion of developments previously permitted in the local area over the last ten years, assist the completion of important social, physical and green infrastructure to service existing communities, address the issues of vacancy and interim proposals on lands not likely to be completed with development in the medium to long term and achieve successful integration and connection of the LAP area with the wider neighbourhood. Such an approach concentrates new development largely into built-up, well-connected urban areas whilst avoiding more environmentally sensitive and vulnerable sites.

The plan also encourages opportunities to protect existing, and create new, habitats through the creation of a multi-functional green network which includes areas of high biodiversity value. Emphasis is also placed on the protection of designated, as well as undesignated sites, of high biodiversity value.

Policies and objectives contained within the plan to increase accessibility generally, including pedestrian and cyclist access, to the River Mayne, areas of natural recreation, private recreational lands etc could also have potential significant adverse impacts in terms of disturbance, fragmentation or loss of habitats unless mitigated against. See Table 9 for a summary of potential impacts of the draft local area plan on Biodiversity, Flora and Fauna.

Table 9: Summary of Potential Impacts of the Draft Clongriffin-Belmayne (north fringe) Local Area Plan on Biodiversity, Flora and Fauna.

Draft Local Area Plan Policies & Objectives	Summary of Significant Impacts on Biodiversity, Flora and Fauna
Movement and Transport Strategy	Largely Insignificant Impacts with a small minority of policies resulting in potential Significant Adverse Impacts on the existing habitats in the area as a result of a policy to promote the development of cycle and pedestrian routes that connect with local parks. These impacts are likely in the medium term . As vegetation matures along walking and cycling route corridors, there would be more opportunity for habitat and cover.
Urban Design	Largely Insignificant Impacts although some potential Significant Beneficial and long term Impacts from promoting the design of park spaces and open space linkages to be part of the larger green network.
Economic Development Strategy	Majority of policies found to have Insignificant Impacts on, or no relationship with, Biodiversity, Flora and Fauna. Significant Beneficial and long term Impacts from one objective which seeks improvements to the physical and visual environment of the LAP area.
Environment and Open Space Amenity Strategy	Overall Significant Beneficial and Long Term Impacts
Community and Social Infrastructure Strategy	Overall Insignificant Impacts
Culture and Tourism Strategy	Overall Insignificant Impacts
Built Heritage Strategy	Overall Insignificant Impacts
Infrastructure and Services Strategy	Overall Significant Beneficial and Long Term Impacts

Sustainable Strategy	Largely Insignificant Impacts with one policy having a potential Significant Beneficial and Long Term Impact as it requires the implementation of the Framework for Sustainable Dublin.
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7.1.3 Water

The draft plan places emphasis on high quality and sustainable densities to consolidate the area, population growth, economic growth and increase in development over the lifetime of the plan and beyond. A potentially significant adverse impact of the draft plan on water is the potential deterioration of waterbodies. Dublin Region’s wastewater treatment plant at Ringsend is currently operating at capacity. Without the provision of upgraded and new wastewater infrastructure, the city’s ability to absorb additional population, economic growth and development is seriously restricted. This impact is indirect and cumulative. The infrastructure improvements required are at a city level. The impact is in the short to medium term as infrastructure improvements will facilitate growth and protect water. Mitigation is required to ensure that the infrastructure is adequate to accommodate phased development in the short to medium term pending upgrades to facilitate long term growth.

Apart from the wastewater issue, the policies and objectives have been found to have likely significant beneficial impacts on water in the area as the provision of upgraded and new wastewater infrastructure, greening the landscape, protecting and improving biodiversity and areas of environmental importance, improving the character of watercourses and water quality in general. See **Table 10** below for a summary of potential impacts of the draft local area plan on Water.

Table 10: Summary of Potential Impacts of the Draft Clongriffin-Belmayne (north fringe) Local Area Plan on Water.

Draft Local Area Plan Policies & Objectives	Summary of Significant Impacts on Water
Movement and Transport Strategy	Largely Insignificant Impacts or no relationship with water with a small minority of objectives with a potential Significant Adverse Short Term Impact on water from the proposed development of a pedestrian route along the River Mayne unless mitigated against.
Urban Design	Significant Secondary and Cumulative Adverse Impacts over the Short to Medium Term , as a result of policies to promote the development of the area, on water quality, flooding and water supply due to current limitations on the wastewater treatment capacity.
Economic Development Strategy	Mostly Insignificant Impacts with a potential significant beneficial and long term impact on reducing and managing the risk of

	flooding from one objective which seeks to help prepare vacant sites for future development in a well ordered and phased sequence.
Environment and Open Space Amenity Strategy	Many policies and objectives having Significant Beneficial and Long Term Impacts on water quality; some policies and objectives having an Insignificant Impact or no relationship with water.
Community and Social Infrastructure Strategy	Insignificant Impacts overall
Culture and Tourism Strategy	Insignificant Impacts overall
Built Heritage Strategy	Insignificant Impacts overall
Infrastructure and Services Strategy	Many policies and objectives having Significant Beneficial and Long Term Impacts on water.
Sustainable Strategy	Insignificant Impacts overall

7.1.4 Air Quality & Noise

Overall the draft local area plan will have significant beneficial and long term impacts on air and noise. The air quality in the area is currently good. Emissions from the transport sector are the main threat to air quality. The emphasis throughout the plan is on reducing the need to travel by private car whilst encouraging and facilitating modal change to more sustainable forms of transport e.g. travel by foot, bicycle and public transport. Reducing the need to travel by unsustainable forms of transport, as the plan policies and objectives facilitate, will serve to have significant beneficial long term impacts on the air quality of the area.

In relation to noise, again transport is the main issue. Traffic noise is the dominant noise source in the area. The emphasis throughout the draft plan is on reducing the need to travel by private car whilst encouraging and facilitating modal change to more sustainable forms of transport e.g. travel by foot, bicycle and public transport. Reducing the need to travel, as the plan policies and objectives facilitate, will serve to have significant beneficial and long term impacts in terms of noise in the area.

Implementing the local area plan will result in high levels of construction activity and associated site traffic movements with potential for negative impacts on the environment in terms of vibration, noise, dust, exhaust emissions etc. However these impacts are not considered to be of a strategic nature, will be temporary in their impact and overall are more appropriately dealt with at project level. Some development proposals may also be accompanied by an EIS which will provide for mitigation of negative impacts.

See **Table 11** for a summary of potential impacts of the draftt plan on Air.

Table 11: Summary of Potential Impacts of the Draft Clongriffin-Belmayne (north fringe) Local Area Plan on Air Quality and Noise.

Draft Local Area Plan Policies & Objectives	Summary of Significant Impacts on Air Quality and Noise
Movement and Transport Strategy	<p>Policies and objectives largely found to have insignificant Impacts on air quality</p> <p>Largely Insignificant Impacts on Noise</p>
Urban Design	<p>Policies and objectives largely found to have insignificant Impacts on air quality with one objective having a potential adverse impact and one having a potential beneficial impact.</p> <p>Policies and objectives largely found to have insignificant Impacts on noise quality with two objectives having a potential adverse impact and one objective having a potential beneficial and long term impact.</p>
Economic Development Strategy	<p>Policies and objectives largely found to have insignificant Impacts on air quality with two objectives having a potential beneficial impact and one having a potential adverse impact in the short to medium term. As sustainable modes of transport are promoted and available in the longer term, vehicular traffic should reduce and lessen the impact on air quality. .</p> <p>Policies and objectives largely found to have insignificant Impacts on noise quality with one objective having a potential beneficial impact and two having a potential adverse impact in the short to medium term . As sustainable modes of transport are promoted and available in the longer term, vehicular traffic should reduce and lessen the impact on air quality. .</p>
Environment and Open Space Amenity Strategy	<p>Mainly Insignificant Impacts with a Significant number of policies and objectives having Significant Beneficial and long term Impacts on Air Quality</p> <p>Largely Insignificant Impacts with some Significant Beneficial Impacts on Noise</p>

Community and Social Infrastructure Strategy	Insignificant Impacts overall
Culture and Tourism Strategy	Insignificant Impacts overall
Built Heritage Strategy	Insignificant Impacts overall
Infrastructure and Services Strategy	Insignificant Impacts overall
Sustainable Strategy	Insignificant Impacts overall

7.1.5 Climatic Factors

The plan aims to provide effective guidance for the completion of developments previously permitted in the local area over the last ten years, assist the completion of important social, physical and green infrastructure to service existing communities and promote and facilitate economic activity in the area. While policies and objectives required to achieve this will result in increased energy use and production of greenhouse gases, these negative impacts will be offset by the fact that the planning approach taken in the plan is inherently sustainable in terms of energy use. The plan approach is based on the completion of the area on a phased basis that makes efficient use of land located in close proximity to good public transport links, both existing and those planned for in the near future. While additional residential and economic activity will be facilitated and take place in the area which could result in increased greenhouse gases, this potential negative impact is offset by the fact that development will take place in well connected, accessible locations served by public transport infrastructure which will reduce the need to travel by private car to less accessible locations on the urban fringe and beyond.

Some short-term impacts on climatic factors will occur (particularly in relation to the emissions of greenhouse gases and use of energy) as a result of increased development and construction but these would not be considered significant and are for a short term duration.

See Table 12 for a summary of potential impacts of the draft plan on Climatic Factors.

Table 12: Summary of Potential Impacts of the Draft Clongriffin-Belmayne (north fringe) Local Area Plan on Climatic Factors.

Draft Local Area Plan Policies & Objectives	Summary of Significant Impacts on Climatic Factors
Movement and Transport Strategy	Large majority of Movement and Transport policies and objectives have been found to have Insignificant Impact or no relationship; some policies and objectives found to have potential beneficial and long term Impact upon climatic factors.
Urban Design	Large majority of policies and objectives have been found to have Insignificant Impact or no relationship Two objectives found to have a potential adverse impact upon climatic factors primarily in the short term as a result of

	increased development and construction
Economic Development Strategy	Large majority of policies and objectives have been found to have Insignificant Impact or no relationship; some policies and objectives found to have a potential beneficial and long term Impact upon climatic factors. One objective found to have a potential adverse impact upon climatic factors primarily in the short term as a result of increased development and construction
Environment and Open Space Amenity Strategy	Significant Beneficial and long term Impacts overall
Community and Social Infrastructure Strategy	Large majority of policies and objectives have Insignificant Impacts overall while one objective was found to have a potential significant and long term benefit upon climatic factors
Culture and Tourism Strategy	Insignificant Impacts overall
Built Heritage Strategy	Insignificant Impacts overall
Infrastructure and Services Strategy	Insignificant Impacts overall
Sustainable Strategy	Overall Significant Beneficial and long term Impacts

7.1.6 Material Assets

Overall the plan will have significant beneficial impacts on transport in the area. The need for a greater modal shift from private car to more sustainable forms of transport is emphasised throughout the plan. The plan also seeks the completion of the internal street networks, improvement in terms of access from residential areas to public transport and the completion of a green route connecting open space amenity.

The plan will also serve to have significant beneficial impacts on waste management as the policies and objectives of the plan are focused on delivering sustainable infrastructure, including for waste management, as well supporting the principles of good waste management, to prevent and minimise waste, to develop biological treatment, encourage and support material sorting and recycling and support the provision of waste to energy.

See Table 13 below for a summary of potential impacts of the draft plan on Material Assets.

Table 13: Summary of Potential Impacts of the Draft Clongriffin-Belmayne (north fringe) Local Area Plan on Material Assets.

Draft Local Area Plan Policies & Objectives	Summary of Significant Impacts on Material Assets
Movement and Transport Strategy	Transport and movement policies and objectives having Significant Beneficial and long term Impacts on Transport and having overall Insignificant Impacts on Waste Management
Urban Design	Largely Insignificant Impacts on transport and movement although a small number of objectives have a potential significant beneficial and long term impact . Overall insignificant Impacts on waste management
Economic Development Strategy	Economic Development policies and objectives having Significant Beneficial and long term Impacts on Transport and having overall Insignificant Impacts on Waste Management
Environment and Open Space Amenity Strategy	Significant majority of policies and objectives having Significant Beneficial and long term Impacts on Transport; Some policies and objectives having an insignificant Impact on transport Overall insignificant Impacts on waste management
Community and Social Infrastructure Strategy	Insignificant Impacts overall
Culture and Tourism Strategy	Insignificant Impacts overall
Built Heritage Strategy	Significant majority of policies and objectives having Insignificant Impacts on Transport; One objective having a Significant Beneficial and long term impact on transport Insignificant Impacts overall on waste management
Infrastructure and Services Strategy	Largely Insignificant Impacts on transport and movement although a small number of objectives have a potential significant beneficial and long term impact . Insignificant Impacts overall on waste

	management
Sustainable Strategy	Insignificant Impacts overall

7.1.7 Landscape (encompasses landscape and soil)

The plan will serve to have potential significant beneficial impacts overall on landscape and soils of the area. The existing environmental problems which are identified as relevant to the LAP relate to implementing improvements on vacant development sites. In summary, these main problems are the poor physical site conditions owing to previous infrastructural works and halt in completing developments. Sites require removal of debris and lack landscaping owing to soil movements and initial infrastructure works. The policies and objectives of the draft plan encourages the reuse of brownfield sites and in turn promotes initiatives on vacant sites as interim proposals for physical, visual and environmental improvement of vacant land banks. These are temporary and positive impacts. High quality urban development accompanied with landscaping schemes and the delivery of public open space and amenity areas will improve the long term physical and visual impact of the landscape.

See Table 14 below for a summary of potential impacts of the draft plan on Landscape and Soils.

Table 14: Summary of Potential Impacts of the Draft Clongriffin-Belmayne (north fringe) Local Area Plan on Landscape.

Draft Local Area Plan Policies & Objectives	Summary of Significant Impacts on Landscape
Movement and Transport Strategy	Largely found to have Insignificant Impacts on the City's natural landscape with some Significant Beneficial and long term Impacts on the area's built landscape, particularly in terms of creating a more pleasant and overall accessible landscape for pedestrians and cyclists Overall found to have an Insignificant Impact on brownfield sites
Urban Design	Overall found to have an Insignificant Impact on brownfield sites and on the natural landscape
Economic Development Strategy	Largely found to have Insignificant Impacts on the City's natural landscape with one objective having a potentially Significant Beneficial and long term Impact on the area's built landscape by seeking to improve the physical and visual environment of the LAP area, in particular where vacant sites. Overall found to have an Insignificant Impact on brownfield sites

Environment and Open Space Amenity Strategy	Broadly found to have Significant Beneficial and long term Impacts on Landscape and Soils; Some policies and objectives would have No Significant Impact on, or No Relationship with, Landscape and Soils
Community and Social Infrastructure Strategy	Overall found to have an Insignificant Impact on brownfield sites and the natural landscape
Culture and Tourism Strategy	Overall found to have an Insignificant Impact on brownfield sites and the natural landscape
Built Heritage Strategy	Largely found to have Insignificant Impacts on the City's natural landscape with one objective having a potentially Significant Beneficial and long term Impact on the area's built landscape and heritage.
Infrastructure and Services Strategy	Overall found to have an Insignificant Impact on brownfield sites and the natural landscape
Sustainable Strategy	Overall found to have an Insignificant Impact on brownfield sites and the natural landscape

7.1.8 Cultural Heritage (including architectural and archaeological heritage)

Overall the impacts of the plan were found to have an mixture of potential significant beneficial impacts on the cultural heritage of the area and insignificant impacts. There is a limited amount of built heritage features within the LAP boundary. The plan seeks to preserve the in-situ archaeological heritage within the area which will be a long term benefit.

See Table 15 below for a summary of potential impacts of the draft plan on Cultural Heritage.

Table 15: Summary of Potential Impacts of the Draft Clongriffin-Belmayne (north fringe) Local Area Plan on Cultural Heritage.

Draft Local Area Plan Policies & Objectives	Summary of Significant Impacts on Landscape
Movement and Transport Strategy	Overall found to have an Insignificant Impact
Urban Design	Overall found to have an Insignificant Impact
Economic Development Strategy	One objective was found to have a Significant Beneficial and long term Impact on cultural heritage while the remainder were found to have an

	Insignificant Impact
Environment and Open Space Amenity Strategy	Broadly found to have Significant Beneficial and long term Impacts on cultural heritage
Community and Social Infrastructure Strategy	Overall found to have an Insignificant Impact
Culture and Tourism Strategy	Overall found to have an Insignificant Impact
Built Heritage Strategy	Largely all having Significant Beneficial and long term Impacts with some policies and objectives found to have Insignificant Impacts on, or no relationship with, cultural heritage
Infrastructure and Services Strategy	Overall found to have an Insignificant Impact
Sustainable Strategy	Overall found to have an Insignificant Impact

SECTION 8

8.0 Mitigation

This section describes measures to prevent, reduce and as fully as possible offset any potential significant adverse environmental effects of implementing the Draft Clongriffin – Belmayne (north fringe) LAP.

As described and detailed in Section 7 and Appendix A, potential significant adverse impacts of implementing the Draft LAP arise as a result of policies and objectives to facilitate additional population by achieving high quality and sustainable densities, economic growth, improvements in infrastructure and promoting increased access to recreational areas and improving new patterns of pedestrian and cycle movements. While these policies and objectives are fully in line with city, regional and national policy to consolidate and ensure a more compact city with greater intensity of uses and to ensure that the city's role as the economic engine of the state is strengthened there is potential for significant adverse impacts on the receiving environment unless mitigated against. Mitigation measures are the measures to prevent, reduce and as fully as possible offset any significant adverse environmental effects as a result of implementing the plan.

Dublin City Council placed sustainability as the overarching theme from the outset of the preparation of the draft local area plan. The developing lands in the LAP area are designated, zoned and serviced to accommodate a range of potential new uses but in particular to provide opportunities for living and working close to public transport facilities and integrate commercial, community and amenity services for new residents and workers in the area.

The draft LAP as a statutory planning document transposes sustainable policies from the international, national, regional and city levels to the local level. During the Dublin City Development plan preparation process for the current City Development Plan (2011-2017) the Framework for a Sustainable Dublin (FFSD), a five level framework for a sustainable city offering a strategic approach to guide and align policies, objectives and actions towards sustainable development was devised. The draft LAP is an opportunity therefore to apply and deliver on the Framework for Sustainable Dublin at a local level.

Policies and objectives with sustainability at their core allow them to act as mitigation measures to offset any potential adverse impacts on the environment as a result of implementing the draft local plan. Mitigation in the form of policies and objectives serve to formalise the mitigation measures and fully integrates them into the local area plan process.

8.1 Water – Mitigation

Currently the supporting infrastructural capacity, particular water supply and wastewater infrastructure is at, or very close to capacity. Any additional loading on the wastewater and water supply infrastructure has potential to have significant adverse impacts on the River Mayne and supply of drinking water.

To mitigate against these potential negative impacts at a local level within the LAP area, policies and objectives have been included in the draft local area plan to ensure that the necessary supporting infrastructure is provided and that appropriate measures are taken in the short term in the absence of supporting infrastructure. Specifically in relation to wastewater treatment, have been incorporated into the draft local area plan as follows:

It is the policy of the Draft Local Area Plan:

- To actively seek the funding and delivery of key infrastructure including water supply and waste water management to enable development in the North Fringe area. (ISP2)
- To manage development so that new schemes are permitted only where adequate capacity existing in the waste water network and at the treatment works at Ringsend. (ISP4)

The following objectives have been incorporated into the draft local area plan specifically in relation to the River Mayne as follows:

It is an objective of the Draft Local Area Plan:

- To seek the rehabilitation of the Mayne River to good water status, it's restoration as a natural amenity and protection of the riparian corridor through the LAP area. (ISO2)
- To seek to improve water quality and meet the objectives of the Eastern River Basin District Management Plan. (ISO3)
- All planning applications shall be required to submit a surface water drainage plan which will include proposals for the management of surface water within sites, and runoff rates from sites, protecting the water quality of the River Mayne and retrofitting best practice SUDS techniques on existing sites where possible. (ISO4)
- All new developments shall be required to comply with the standards set out in the Greater Dublin Strategic Drainage Study (GDSDS). (ISO7)

To mitigate against potential negative impacts with regard to water supply, Dublin City Council has committed to provide for the expansion of water systems (see Dublin City Development Plan 2011-2017). The following policies have been included in the draft LAP at local level to mitigate against any potential adverse impacts as a result of deficiencies in water supply:

It is the policy of the Draft Local Area Plan:

- To actively seek the funding and delivery of key infrastructure including water supply and waste water management to enable development in the North Fringe area. (ISP2)
- To ensure that development is permitted in tandem with available water supply and only where network capacity is available. New development must include details on water conservation measures and demand management measures. (ISP3)

8.2 Biodiversity – Mitigation

Objectives contained within the draft plan to increase pedestrian and cyclist access to areas of natural recreation such as along the River Mayne and throughout the plan area could have potential significant impacts in terms of disturbance, fragmentation or loss of habitats. Any significant adverse impacts are offset by the inclusion of mitigating policies and objectives in the draft plan which will ensure that habitats, designated and undesignated, are protected and enhanced as follows:

It is the policy of Dublin City Council:

- To protect and maximise the assets of natural heritage and coastal amenity within and adjoining the LAP area to promote the development of green corridors between amenity areas in both Dublin City Council and Fingal County Council areas. (ESOP2)
- To protect the natural habitats and protected status of Baldoyle Estuary by ensuring protection of water quality and habitats along the riparian corridor of the River Mayne and ensure appropriate set back of developments, surface water management and park design along its course. (ESOP3)

It is an objective of the Draft Local Area Plan:

- To achieve best practice and innovations in SUDS design as part of development schemes including the successful co- ordination of surface water management with ecology and amenity functions of open space and landscaped areas. (EOSO1)
- To co-ordinate with Fingal County Council and other stakeholders on the completion of a phased plan and delivery of a linear park along the course of the River Mayne and enhancement of the biodiversity value of the riparian corridor. (EOSO3)
- To prepare a specific local biodiversity action plan within the life time of the LAP. (EOSO5)

8.3 Air and Noise– Mitigation

The plan promotes the Completion of the internal street networks including the North Distributor Road and Main Street and other key infrastructure projects which, although longer term in nature, need to be progressed including completion of the Main Street over the rail line into the Baldoyle-Stapolin LAP area (for public transport, walking and cycling) and by pass of the N32/R107(Malahide Road) junction.

The completion of road infrastructure projects may potentially lead to an increase in noise levels in the plan area. Any significant adverse impacts are offset by the inclusion of a mitigatory objective in the draft plan which will ensure that the impacts of noise are minimised as follows:

It is an objective of the Draft Local Area Plan:

- To minimise the adverse impacts of noise and promote good health and a good quality of life through effective management of noise within the Clongriffin – Belmayne Local Area Plan

8.4 Conclusion

In conclusion it is apparent from the above assessment that the draft local area plan includes mitigatory measures in the form of policies and objectives to offset any potential impacts on the environmental receptors. No additional mitigation measures were considered necessary in relation to any of the environmental receptors. Policies and objectives with sustainability at their core allow them to act as mitigation measures to offset any potential adverse impacts on the environment as a result of implementing the plan. Mitigation in the form of polices and

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objectives serve to formalise the mitigation measures and fully integrates them into the local area plan process.

SECTION 9

9.0 Monitoring

This section sets out the proposed monitoring measures in accordance with Article 10 of the SEA Directive which requires that “*significant environmental effects of the implementation of plans and programmes in order, inter alia, to identify at an early stage unforeseen effects, and to be able to undertake appropriate remedial action*”. A monitoring programme has been devised having regard to the existing monitoring systems in place and in use by Dublin City Council.

For the purposes of the Strategic Environmental Assessment (SEA) of the draft local area plan, the SEA in-house team developed environmental protection objectives, targets and indicators early on in the SEA process. These are set out in Section 4 of this report. Monitoring of the indicators is essential in order to track the impacts of the development plan on the environment.

See **Table 16** below for Monitoring Programme.

Table 16 Monitoring

	Environmental Protection Objective	Target	Indicator	Frequency of Reporting	Department Responsible
Population / Human Health	<i>To protect and enhance people's quality of life based on high quality residential, community, working and recreational environments and on sustainable travel patterns</i>	All Drinking Water and Drinking Water Sources to comply with the European Communities (Drinking Water) (No.2) Regulations, 2007 and European Communities (Quality of Surface Water Intended for the Abstraction of Drinking Water) Regulations, 1989	Status of drinking water and drinking water sources	Annual	Environment and Engineering Department (Water Division)
		Sustainable densities achieved in new residential / mixed-use schemes	Average density of new residential development	Annual	Planning and Economic Development Department
		All water bodies to meet targets set in ERDB plan	Ecological status of water bodies	Annual	Environment and Engineering Department (Drainage Division)

	Environmental Protection Objective	Target	Indicator	Frequency of Reporting	Department Responsible
Biodiversity/Flora & Fauna	<i>To protect and enhance the diversity and range of habitats, species and wildlife corridors/green corridors</i>	No adverse impacts on designated nature areas / species / habitats	Survey and monitor extent and distribution of invasive species	Annual	Culture, Recreation & Amenity Dept.
		Survey and monitor bird population	Annual	Culture, Recreation & Amenity Dept.	
		Survey and monitor distribution of bat populations	Annual	Culture, Recreation & Amenity Dept.	
		Total area of designated sites (Natura 2000 and pNHA's)	Annual	Culture, Recreation & Amenity Dept.	
		Identification of other undesignated areas of natural heritage throughout the city	Length of linked green corridor/routes	Annual	Culture, Recreation & Amenity Dept.
		Implementation of new setback/buffer zones along River Mayne for developments	Level of set back achieved	Annual	Culture, Recreation & Amenity Dept.
Increased provision for soft landscape in existing and new developments	Permeability index for new sites for development	Annual	Culture, Recreation & Amenity Dept.		

	Environmental Protection Objective	Target	Indicator	Frequency of Reporting	Department Responsible
Water	<i>W1 To comply with EU Water Framework Directive to ensure and maintain good ecological status of all receiving water in the LAP area</i>	All water bodies to meet targets set in ERDB plan	Ecological status of water bodies	Annual	Environment and Engineering Department (Drainage Division)
	<i>W2 To reduce and manage the risk of flooding</i>	Compliance with the Floods Directive and with OPW/DoEHLG's Flood Risk Management Guidelines	Number of planning permissions compliant with the Floods Directive and OPW / DoEHLG's 'Flood Risk Management in the Planning Process' standards	Annual	Environment and Engineering Department (Drainage Division)
		Flood Risk Assessment be carried out for new developments	Number of planning permissions incorporating flood risk assessment and conditions requiring appropriate flood resilient measures for new developments	Annual	Environment and Engineering Department (Drainage Division)
		Sustainable Urban Drainage Systems in new developments	Number of Sustainable Urban Drainage Systems required in new planning applications	Annual	Environment and Engineering Department (Drainage Division)

	Environmental Protection Objective	Target	Indicator	Frequency of Reporting	Department Responsible
Water	<i>W3 To provide adequate wastewater treatment, water distribution networks and drainage networks</i>	Provision of adequate water, wastewater treatment and drainage infrastructure in accordance with Dublin City Council's Strategic Water Plan for Water Services 2009	Capacity of water supply and wastewater infrastructure versus demand	Annual	Environment and Engineering Department (Drainage Division)
Air Quality & Noise	<i>AN 1 To protect good air quality status and minimise all forms of air pollution (i.e. Nitrogen oxides & Particulate Matter)</i>	Maintain good air quality values	Values of monitored pollutants in the air	Annual	Culture, Recreation & Amenity Dept.
	<i>AN2 To maintain and, where possible, improve the good acoustical quality for the current and future residents of the plan area</i>	Minimise noise pollution	% of residents exposed to noise levels above undesirable levels	Annual	Roads & Traffic (Noise & Air Quality Unit)
Climatic Factors	<i>CF To minimise emissions of greenhouse gases</i>	Decrease greenhouse emissions	Average energy consumption of new residential housing stock Tonnes of CO2/Capita/Year	Annual	Environment and Engineering Department in association with Codema

	Environmental Protection Objective	Target	Indicator	Frequency of Reporting	Department Responsible
Material Assets	<i>MA1 To reduce traffic levels by encouraging modal change from car to more sustainable modes of transport such as public transport, walking & cycling</i>	Extension and improvement of the cycling and walking network in the area	% change in modal split Length of new cycling paths/lanes and walking routes developed	Annual	Roads & Traffic Department
	<i>MA2 To reduce the generation of waste and adopt a sustainable approach to waste management</i>	Increased recycling (59% recycling target by 2013 – Regional Figure)	% of waste recycled Tonnes of waste per capita per year	Annual	Environment & Engineering Department (Waste Management Division)
Landscape & Soils	<i>LS1 To conserve and enhance valued natural landscapes and features within them including those of geological value</i>	Develop new areas of open space	Change in area of open space	Annual	Culture, Recreation & Amenity Dept.
		Minimise negative visual impacts from new developments	Number of developments requiring a landscape impact assessment	Annual	Planning and Economic Development Department
	<i>LS2 To protect, improve and maintain the quality of soils and give preference to the re-use of brownfield lands, rather than developing greenfield sites</i>	Brownfield sites to be developed in the area	Number of developments granted for brownfield sites (or total area of development)	Annual	Planning and Economic Development Department

	Environmental Protection Objective	Target	Indicator	Frequency of Reporting	Department Responsible
Cultural Heritage	<i>CH To protect and conserve the cultural heritage including the built environment and settings; archaeological (recorded monuments, architectural structures, materials and urban fabric) and manmade landscape features</i>	Ensure that the cultural heritage of the LAP area is maintained and protected from damage or deterioration	No. of archaeological sites investigated Number of planning applications with input from or screened by the City Archaeologist	Annual Annual	Planning and Economic Development Department

Appendix A

Appendix A

Evaluation of the Draft Clongriffin-Belmayne (north fringe) LAP

ENVIRONMENTAL RECEPTOR	ENVIRONMENTAL PROTECTION OBJECTIVE
Population and Human Health	PHH To protect and enhance people's quality of life based on high quality residential, community, working and recreational environments and on sustainable travel patterns.
Biodiversity/Flora & Fauna	BFF To protect and enhance the diversity and range of habitats, species and wildlife corridors/green corridors
Water	<p>W1 To comply with EU Water Framework Directive to ensure and maintain good ecological status of all receiving water in the LAP area</p> <p>W2 To reduce and manage the risk of flooding</p> <p>W3 To provide adequate wastewater treatment, water distribution networks and drainage networks</p>
Air Quality & Noise	<p>AN 1 To protect good air quality status and minimise all forms of air pollution (i.e. Nitrogen oxides & Particulate Matter)</p> <p>AN2 To maintain and, where possible, improve the good acoustical quality for the current and future residents of the plan area</p>
Climatic Factors	CF To minimise emissions of greenhouse gases
Material Assets	<p>MA1 To reduce traffic levels by encouraging modal change from car to more sustainable modes of transport such as public transport, walking & cycling</p> <p>MA2 To reduce the generation of waste and adopt a sustainable approach to waste management</p>
Landscape & Soils	<p>LS1 To conserve and enhance valued natural landscapes and features within them including those of geological value</p> <p>LS2 To protect, improve and maintain the quality of soils and give preference to the re-use of brownfield lands, rather than developing greenfield sites</p>
Cultural Heritage	CH To protect and conserve the cultural heritage including the built environment and settings; archaeological (recorded monuments, architectural structures, materials and urban fabric) and manmade landscape features

Will the implementation of the policy serve to have:

- | | |
|--|---|
| A Significant Beneficial Impact on Environmental Receptor? | + |
| A Significant Adverse Impact on Environmental Receptor? | - |
| An Uncertain Impact on Environmental Receptor? | ? |
| An Insignificant Impact or No relationship with Environmental Receptor | 0 |

Evaluation of the Draft Clongriffin – Belmayne (north fringe) Local Area Plan Policies

CHAPTER 6 Movement and Transport Strategy	PHH	BFF	W1	W2	W3	AN1	AN2	CF	MA1	MA2	LS1	LS2	CH
MTP1 To facilitate the completion of the existing road infrastructure network as identified in the movement and transport strategy.	+	0	0	0	0	0	-	0	+	0	0	0	0
MTP2 To promote co-ordination with Fingal County Council in the implementation of the trans-boundary road projects including completion of the Main Street into the Baldoyle-Stapolin LAP for public transport, walking and cycling priority, works to the junction of the R107/N32 and Drumnigh Cross re-alignment.	+	0	0	0	0	0	0	0	0	0	0	0	0
MTP3 To promote increased cycling and pedestrian activity by the development of cycle and pedestrian network of routes that connect with local parks, community facilities, employment areas, retail areas and public transport facilities.	+	-	0	0	0	0	0	+	+	0	0	0	0

CHAPTER 9													
Economic Development Strategy	PHH	BFF	W1	W2	W3	AN1	AN2	CF	MA1	MA2	LS1	LS2	CH
ESP1 For the interim economic strategy, it is a policy of this LAP to promote catalysts for economic activity that include short term uses.	+	0	0	0	0	0	0	0	0	0	0	0	0
ESP2 For the long term economic strategy, it is a policy of the LAP to promote progress in delivering key drivers for economic growth including successful movement, high quality urban design, high quality visual impact, high quality natural environment, access to high quality life long housing and access to social and community infrastructure.	+	0	0	0	+	+	0	+	+	+	+	0	+
ESP3 To assist the implementation of regional and city economic strategies so that the local area is well positioned to perform and contribute to modern economic growth of the city and the region.	+	0	0	0	0	0	0	0	0	0	0	0	0

CHAPTER 9 Economic Development Strategy	PHH	BFF	W1	W2	W3	AN1	AN2	CF	MA1	MA2	LS1	LS2	CH
ESP4 To promote the location as a strategically located resource for future sustainable economic growth in the city and region.	+	0	0	0	0	0	0	0	0	0	0	0	0

CHAPTER 10 Environment & Open Space Amenity Strategy	PHH	BFF	W1	W2	W3	AN1	AN2	CF	MA1	MA2	LS1	LS2	CH
ESOP1 To realise the potential of a high quality environment as a key driver in economic development, community development, bio diversity enhancement, improved sustainable movement and enhanced quality of life for the local area.	+	+	+	0	0	+	+	+	+	+	+	0	+
ESOP2 To protect and maximise the assets of natural heritage and costal amenity within and adjoining the LAP area and promote the development of green corridors between amenity areas in both Dublin City Council and Fingal County Council areas.	+	+	+	+	0	+	0	+	+	0	+	+	+

CHAPTER 10 Environment & Open Space Amenity Strategy	PHH	BFF	W1	W2	W3	AN1	AN2	CF	MA1	MA2	LS1	LS2	CH
ESOP3 To protect the natural habitats and protected status of Baldoyle Estuary by ensuring protection of water quality and habitats along the riparian corridor of the River Mayne and ensure appropriate set back of developments, surface water management and park design along its course.	+	+	+	+	0	0	0	+	0	0	+	+	+

CHAPTER 14 Infrastructure & Services Strategy	PHH	BFF	W1	W2	W3	AN1	AN2	CF	MA1	MA2	LS1	LS2	CH
ISP1 It is the policy of the Council that infrastructure delivery shall facilitate and enhance the development of the North Fringe LAP area to achieve its potential as a Key Developing Area of the City, as identified in the Dublin City Development Plan.	+	0	+	+	+	0	0	0	+	0	0	0	0

CHAPTER 14 Infrastructure & Services Strategy	PHH	BFF	W1	W2	W3	AN1	AN2	CF	MA1	MA2	LS1	LS2	CH
ISP2 To actively seek the funding and delivery of key infrastructure including water supply and waste water management to enable development in the North Fringe area.	+	+	+	0	+	0	0	0	0	0	0	0	0
ISP3 To ensure that development is permitted in tandem with available water supply and only where network capacity is available. New development must include details on water conservation measures and demand management measures.	+	0	+	+	+	0	0	0	0	0	0	0	0
ISP4 To manage development so that new schemes are permitted only where adequate capacity existing in the waste water network and at the treatment works at Ringsend.	+	+	+	0	+	0	0	0	0	0	0	0	0

CHAPTER 15 Sustainable Strategy	PHH	BFF	W1	W2	W3	AN1	AN2	CF	MA1	MA2	LS1	LS2	CH
SSP1 To support sustainable design and sustainable formats of development in the LAP area which will help Dublin City Council achieve its targets in reducing energy consumption and reducing carbon dioxide emissions in accordance with the Dublin City Energy Action Plan.	+	0	0	0	0	0	0	+	0	0	0	0	0
SSP2 To implement the principles of the Framework for Sustainable Dublin as set out under the Dublin City Development Plan 2011- 2017 at the local level and incorporate sustainable principles across all strategies for future development (both short term and long term) as identified in the LAP.	+	+	0	0	0	0	0	+	0	0	0	0	0

Evaluation of the Draft Clongriffin – Belmayne (north fringe) Local Area Plan Objectives

CHAPTER 6 Movement and Transport Strategy	PHH	BFF	W1	W2	W3	AN1	AN2	CF	MA1	MA2	LS1	LS2	CH
MTO1 To develop routes through sites that are likely to remain vacant in the long term, as pedestrian/cyclists routes, eliminate barriers to movement and provide significantly enhanced permeability and through access to adjoining streets.	+	0	0	0	0	0	0	0	+	0	0	0	0
MTO2 To provide new patterns of pedestrian and cycle movement in both the east-west and north-south directions throughout the area that is coherent, direct, safe and convenient.	+	-	-	0	0	0	0	0	+	0	0	0	0
MTO3 To initiate a Local Smarter Travel Plan and pursue its implementation taking into account the Sustainable Movement and Transport principles outlined in the LAP.	+	0	0	0	0	0	0	+	+	0	0	0	0

CHAPTER 6 Movement and Transport Strategy	PHH	BFF	W1	W2	W3	AN1	AN2	CF	MA1	MA2	LS1	LS2	CH
MTO4 To facilitate enhanced patronage and efficient utilisation of public transport and promote walking and cycling through a range of measures including a reduced provision of car parking for commercial development.	+	0	0	0	0	0	0	+	+	0	0	0	0
MTO5 To liaise with Irish Rail and promote greater frequency and enhanced services at Clongriffin Rail Station for commuters as the area continues to grow.	+	0	0	0	0	0	0	0	+	0	0	0	0
MTO6 To undertake an area wide traffic management plan including a review of the traffic operations of the N32/R107 Junction and Grange Road/Kilbarrack Road/Raheny Road Junctions.	+	0	0	0	0	0	0	0	0	0	0	0	0
MTO7 To develop a pedestrian route along the River Mayne and access the potential to connect with amenity lands in Baldoyle Estuary and further amenities along the costal routes.	+	?	0	0	0	0	0	0	+	0	+	+	0

CHAPTER 6 Movement and Transport Strategy	PHH	BFF	W1	W2	W3	AN1	AN2	CF	MA1	MA2	LS1	LS2	CH
MTO8 To seek well integrated design solutions for adequate car parking within the design and layout of schemes with particular attention to visitor parking and car storage.	+	0	0	0	0	0	0	0	0	0	0	0	0
MTO9 In consultation with the NTA, DCC will provide traffic impact analysis of existing and projected traffic movements to guide the completion of street infrastructure, including advancement of the R107 realignment to accommodate medium- longer term development.	+	0	0	0	0	0	0	0	0	0	0	0	0

CHAPTER 7 Urban Design	PHH	BFF	W1	W2	WF3	AN1	AN2	CF	MA1	MA2	LS1	LS2	CH
UDO1 To achieve high quality and sustainable densities to consolidate the area, maximise access for residents and employees to public transport and successfully define important locations and routes including the Main Street access and town centres (KDC designated zones).	+	0	-	+	-	+	+	+	+	0	0	0	0
UDO2 To promote the development of family orientated, high quality, adaptable, life long homes within the LAP area through creative design that still delivers a sustainable density to support the provision of services.	+	0	-	+	-	+	+	+	0	0	0	0	0
UDO3 To promote public spaces that provide both passive and active recreation and a connection to those forms of activities in the surrounding area.	+	0	0	0	0	0	0	0	0	0	0	0	0

CHAPTER 7 Urban Design	PHH	BFF	W1	W2	WF3	AN1	AN2	CF	MA1	MA2	LS1	LS2	CH
UDO4 To ensure high quality streetscapes are achieved through distinctive high quality street furniture, lighting, paving and public artwork that creates a distinctive character associated with the North Fringe.	+	0	0	0	0	0	0	0	0	0	0	0	0
UDO5 To design park spaces and all open spaces linkages to be part of the larger green network in particular from Father Collins Park to the surrounding area and along the River Mayne incorporating a dedicated network of cycle paths and pedestrian routes.	+	+	0	0	0	0	0	0	+	0	0	0	0
UDO6 To achieve creative and unique character through public realm enhancements in all key development sites through development contribution levies and partnership with the divisions of Dublin City Council.	+	0	0	0	0	0	0	0	0	0	0	0	0

CHAPTER 7 Urban Design	PHH	BFF	W1	W2	WF3	AN1	AN2	CF	MA1	MA2	LS1	LS2	CH
<p>UDO7 The height strategy for the LAP will seek positive integration of new building height with established character. Locations identified for special height character are the designated Key District Centres (5 storeys minimum) and the Main Street Boulevard axis (four to five storeys). One location for a landmark profiled building (10-14 storey office height equivalent) is designated adjacent to Clongriffin Rail Station.</p>	+	0	0	0	0	0	0	0	0	0	0	0	0
<p>UDO8 To seek full compliance within all permitted developments on planning conditions, completion of infrastructure, adherence to phasing policy, taking in charge standards building control and fire regulations and seek more effective mechanisms for Dublin City Council to seek confirmation of full compliance on all planning, design and build stages for future developments in the LAP area.</p>	+	0	0	0	0	0	0	0	0	0	0	0	0

CHAPTER 7 Urban Design	PHH	BFF	W1	W2	WF3	AN1	AN2	CF	MA1	MA2	LS1	LS2	CH
UDO9 To seek and assess the satisfactory arrangements for the future management of multiple unit developments as a integral part of a scheme planning proposal to ensure that residential amenities are protected in the management of completed developments in accordance with city policy of encouraging lifetime homes.	+	0	0	0	0	0	0	0	0	0	0	0	0
UDO10 To minimise the adverse impacts of noise and promote good health and a good quality of life through the effective management of noise within the Clongriffin-Belmayne Local Plan Area.	+	0	0	0	0	0	+	0	+	0	0	0	0
UDO11 To preserve and maintain good air quality in the plan area in accordance with national and EU policy directives on air quality and where appropriate promote compliance with established targets.	+	0	0	0	0	+	0	+	+	0	0	0	0

CHAPTER 9 Economic Development Strategy	PHH	BFF	W1	W2	W3	AN1	AN2	CF	MA1	MA2	LS1	LS2	CH
ESO1 To improve the physical and visual environment of the LAP area, in particular where vacant sites exist, to provide positive first impressions that market the area for business investment.	+	+	0	0	0	0	0	0	0	0	+	0	+
ESO2 To seek delivery of important sections of the street network, including interim pedestrian and cyclist routes, to improve local movement between the developing areas in both Dublin City Council and Fingal.	+	+	0	0	0	+	+	+	+	0	0	0	0
ESO3 To encourage co-operation between stakeholders to help prepare vacant sites for future development in a well ordered phasing sequence and facilitate the creative temporary uses.	+	0	0	0	0	0	0	0	+	+	0	0	0
ESO4 To co-ordinate with the Economic Development Unit, Dublin City Enterprise Board and State Agencies in promoting the LAP area for economic investment and occupancy.	+	0	0	0	0	0	0	0	0	0	0	0	0

CHAPTER 9 Economic Development Strategy	PHH	BFF	W1	W2	W3	AN1	AN2	CF	MA1	MA2	LS1	LS2	CH
ESO5 To co-ordinate with stakeholders, through the economic agencies that work within the city and region, to promote the LAP area for strategic economic investment, particularly in growth sectors.	+	0	0	0	0	0	0	0	0	0	0	0	0
ESO6 To co-ordinate with stakeholders, in particular the adjoining local authority of Fingal, to promote synergies between the LAP area, existing and future economic zones in close proximity to the LAP area.	+	0	0	0	0	0	0	0	0	0	0	0	0
ESO7 To co-ordinate with stakeholders to help to achieve delivery of key transportation infrastructure improvements, in particular public transport, serving the LAP area.	+	0	0	0	0	+	-	+	+	0	0	0	0
ESO8 To co-ordinate with stakeholders for the completion of a high quality broadband infrastructure to service commercial and enterprise locations within the LAP area.	+	0	0	0	0	0	0	0	0	0	0	0	0

CHAPTER 9 Economic Development Strategy	PHH	BFF	W1	W2	W3	AN1	AN2	CF	MA1	MA2	LS1	LS2	CH
ESO9 To complete the urban design and spatial vision for the developing area (originally set out in the Action Area Plan in 2000) including the long term completion of two gateway town centre locations which will be attractive for enterprise and business opportunities.	+	0	0	+	0	+	0	0	+	+	0	0	0

CHAPTER 10 Environment & Open Space Strategy	PHH	BFF	W1	W2	W3	AN1	AN2	CF	MA1	MA2	LS1	LS2	CH
EOSO1 To achieve best practice and innovations in SUDS design as part of development schemes including the successful co-ordination of surface water management with ecology and amenity functions of open space and landscaped areas.	+	+	+	+	+	0	0	+	0	0	+	+	+

CHAPTER 10 Environment & Open Space Strategy	PHH	BFF	W1	W2	W3	AN1	AN2	CF	MA1	MA2	LS1	LS2	CH
EOSO2 To prioritise and seek the early completion of the original network of open spaces throughout the developing area in the LAP.	+	+	+	+	+	+	+	+	+	0	+	+	+
EOSO3 To co-ordinate with Fingal County Council and other stakeholders on the completion of a phased plan and delivery of a linear park along the course of the River Mayne and enhancement of the biodiversity value of the riparian corridor.	+	+	+	+	0	+	+	+	+	0	+	+	+
EOSO4 To promote connections between existing amenity areas, proposed amenity areas and greenways including potential connections to an extended S2S route.	+	+	+	+	0	+	+	+	+	0	+	+	+

CHAPTER 10 Environment & Open Space Strategy	PHH	BFF	W1	W2	W3	AN1	AN2	CF	MA1	MA2	LS1	LS2	CH
EOS05 To prepare a specific local biodiversity action plan and landscape character assessment study within the life time of the LAP	+	+	+	+	0	0	+	+	+	0	+	+	+
EOS06 To assess the feasibility of establishing a pilot project site(s) for allotments and/or other growing initiatives on vacant sites within the LAP area as a priority action.	+	+	+	+	0	+	+	+	0	0	0	+	0
EOS07 To promote improvements of vacant sites for the interim period pending their development within the LAP area and promote progress towards the completion of final stages of Fr Collins Park.	+	+	+	+	0	+	+	+	+	0	+	+	0

CHAPTER 11 Community & Social Infrastructure Strategy	PHH	BFF	W1	W2	W3	AN1	AN2	CF	MA1	MA2	LS1	LS2	CH
CSO1 To promote well designed, accessible urban neighbourhoods throughout the LAP area that are well served by local facilities and public transport.	+	0	0	0	0	0	0	+	+	0	0	0	0
CSO2 To ensure access for all to community and social infrastructure for community integration.	+	0	0	0	0	0	0	0	0	0	0	0	+
CSO3 To ensure that buildings intended for community related facilities are designed as adaptable flexible spaces that accommodate a range of uses.	+	0	0	0	0	0	0	0	+	0	0	0	0
CSO4 To assess the feasibility of providing a Dublin City Council Library facility to service the future population within the LAP area, include this feasibility within the next five year city library strategy and consider optimal locations that co-locate such a facility with other community uses.	+	0	0	0	0	0	0	0	0	0	0	0	0

CHAPTER 11 Community & Social Infrastructure Strategy	PHH	BFF	W1	W2	W3	AN1	AN2	CF	MA1	MA2	LS1	LS2	CH
CSO5 To encourage community integration through such examples as creative recreational space, allotments and markets (the concept of “third spaces” for community interaction).	+	0	0	0	0	0	0	0	0	0	0	0	0
CSO6 To seek to create safe and useable open spaces with each residential development for play through overlooking and passive surveillance.	+	0	0	0	0	0	0	0	0	0	0	0	0
CSO7 To make provision for the completion of key routes and access points for all to the permanent primary school sites within the LAP lands.	+	0	0	0	0	0	0	0	+	0	0	0	0
CSO8 To promote and encourage a socially inclusive community that cater for all age groups, that accord with the principles of universal design and that offer quality of opportunity and good services to all.	+	0	0	0	0	0	0	0	0	0	0	0	0

CHAPTER 11 Community & Social Infrastructure Strategy	PHH	BFF	W1	W2	W3	AN1	AN2	CF	MA1	MA2	LS1	LS2	CH
CSO9 To assess the feasibility and support the medium-long term provision of public sports facilities in combination with the completion of Fr Collin’s Park south of the Main Street on lands zoned Z9 for recreation and amenity and to facilitate interim use of these lands for recreation and community purposes.	+	0	0	0	0	0	0	0	0	0	0	0	0
CSO10 To encourage the provision of accessible sports, recreation and community facilities as part of a sustainable mix of uses for future development proposals within the LAP area.	+	0	0	0	0	0	0	0	0	0	0	0	0
CSO11 To facilitate the development of two co-located primary schools in Belmayne, facilitate ease of access and connectivity to the school location and to reserve specially designated sites for educational uses to service the future population in the LAP area.	+	0	0	0	0	0	0	0	0	0	0	0	0

CHAPTER 12 Culture & Tourism Strategy	PHH	BFF	W1	W2	W3	AN1	AN2	CF	MA1	MA2	LS1	LS2	CH
CTO1 To support the development and sustainable location of cultural and tourism related facilities within the area, in particular the flagship Fr Collin's Park and greenway connections to the coast, that is accessible by all.	+	0	0	0	0	0	0	0	0	0	0	0	+
CTO2 To facilitate the provision of fit-for-purpose, sustainable cultural infrastructure incorporated into developments.	+	0	0	0	0	0	0	0	0	0	0	0	+
CTO3 To ensure that a cultural impact assessment accompanies all larger planning applications which identifies the contribution(s) the proposed development will make to culture and tourism in the area.	+	0	0	0	0	0	0	0	0	0	0	0	+

CHAPTER 12 Culture & Tourism Strategy	PHH	BFF	W1	W2	W3	AN1	AN2	CF	MA1	MA2	LS1	LS2	CH
CTO4 To promote the priorities of the Dublin Cultural Strategy 2009-2017 through the support for established and emerging artists, opportunities to participate in cultural events, support for sustainable cultural infrastructure, recognise its vitality and viability.	+	0	0	0	0	0	0	0	0	0	0	0	+
CTO5 To ensure the provision of local cultural spaces, performance and entertainment spaces, while protecting the existing amenities of the area.	+	0	0	0	0	0	0	0	0	0	0	0	0
CTO6 To encourage the alternative use of vacant commercial space to allow use for creativity and cultural use on a temporary basis.	+	0	0	0	0	0	0	0	0	0	0	0	0

CHAPTER 13 Built Heritage Strategy	PHH	BFF	W1	W2	W3	AN1	AN2	CF	MA1	MA2	LS1	LS2	CH
BHO1 To protect and enhance the character of the built heritage within and in close proximity to the LAP lands.	+	0	0	0	0	0	0	0	0	0	0	0	+
BHO2 To preserve and enhance the setting and character of Grange Abbey and ensure future development has regard to the historical value of heritage sites.	+	0	0	0	0	0	0	0	0	0	+	0	+
BHO3 To promote the in-situ preservation of archaeology as the preferred option where development would have an impact on zones of archaeological interest.	+	0	0	0	0	0	0	0	0	0	0	0	+
BHO4 To assess the feasibility of a local heritage trail in conjunction with Fingal County Council to promote awareness, appreciation and potential tourism benefits from local heritage features in the locality between both Council areas.	+	0	0	0	0	0	0	0	0	0	0	0	+

CHAPTER 13 Built Heritage Strategy	PHH	BFF	W1	W2	W3	AN1	AN2	CF	MA1	MA2	LS1	LS2	CH
BHO5 To encourage good integration, in particular walking and cycling, between the LAP area and grounds of Belcamp College in Fingal County Council and value the significant architectural heritage of these grounds as an asset for communities in both council areas within future proposals.	+	0	0	0	0	0	0	0	+	0	0	0	+

CHAPTER 14 Infrastructure & Services Strategy	PHH	BFF	W1	W2	W3	AN1	AN2	CF	MA1	MA2	LS1	LS2	CH
ISO1 To protect existing and future infrastructure through the protection of wayleaves and co- ordination of developments with the requirements of infrastructure service providers.	+	0	0	0	+	0	0	0	0	0	0	0	0
ISO2 To seek the rehabilitation of the Mayne River to good water status, it's restoration as a natural amenity and protection of the riparian corridor through the LAP area.	+	+	+	+	0	0	0	0	0	0	0	0	0

CHAPTER 14 Infrastructure & Services Strategy	PHH	BFF	W1	W2	W3	AN1	AN2	CF	MA1	MA2	LS1	LS2	CH
ISO3 To seek to improve water quality and meet the objectives of the Eastern River Basin District Management Plan.	+	+	+	0	0	0	0	0	0	0	0	0	0
ISO4 All planning applications shall be required to submit a surface water drainage plan which will include proposals for the management of surface water within sites, and runoff rates from sites, protecting the water quality of the River Mayne and retrofitting best practice SUDS techniques on existing sites where possible.	+	+	+	0	0	0	0	0	0	0	0	0	0
ISO5 To encourage provision of suitable high quality strategic telecommunications including fibre optic broadband links and utilities (gas and electricity) infrastructure is provided for within the LAP area.	+	0	0	0	0	0	0	0	0	0	0	0	0

CHAPTER 14 Infrastructure & Services Strategy	PHH	BFF	W1	W2	W3	AN1	AN2	CF	MA1	MA2	LS1	LS2	CH
ISO6 To require all proposed developments to carry out a detailed Flood Risk Assessment in accordance with the Departmental Guidelines on Flood Risk Management.	+	0	0	+	0	0	0	0	0	0	0	0	0
ISO7 All new developments shall be required to comply with the standards set out in the Greater Dublin Strategic Drainage Study (GSDSDS).	+	+	+	+	+	0	0	0	0	0	0	0	0

CHAPTER 15 Sustainability Strategy	PHH	BFF	W1	W2	W3	AN1	AN2	CF	MA1	MA2	LS1	LS2	CH
SSO1 To seek best practice in sustainable design and incorporation of green technology for all future development proposals in the LAP area across the levels of the individual buildings, the overall scheme and overall neighbourhood.	+	+	+	+	+	0	0	+	0	0	0	0	0

CHAPTER 15 Sustainability Strategy	PHH	BFF	W1	W2	W3	AN1	AN2	CF	MA1	MA2	LS1	LS2	CH
SSO2 To encourage the development of exemplary projects within the LAP area that demonstrate best practice in energy efficiency (both residential and commercial) and sustainable design.	+	0	0	0	0	0	0	+	0	0	0	0	0
SSO3 To prioritise actions under the LAP through an effective phasing programme that help to complete the development of sustainable walkable neighbourhoods with particular emphasis on, promotion of public transport, promotion of sustainable movement, promotion of consolidating areas of development with sustainable densities and enhancement of the environment and open space.	+	0	0	0	0	0	0	0	+	0	0	0	0
SSO4 To facilitate the provision of employment uses in close proximity to residential areas to increase the opportunity for working close to the home (and thereby reducing the extent of work related commuter journeys).	+	0	0	0	0	0	0	0	+	0	0	0	0

CHAPTER 15 Sustainability Strategy	PHH	BFF	W1	W2	W3	AN1	AN2	CF	MA1	MA2	LS1	LS2	CH
SSO5 To ensure that the phasing, implementation and monitoring strategy of the LAP will contribute to indicator projects for Dublin City including the Sustainability Indicators Framework that measures progress and assists policy making towards improving the quality of the environment and creating a highly sustainable city.	+	0	0	0	0	0	0	0	0	0	0	0	0