

SEA STATEMENT

OF THE

CORK CITY DEVELOPMENT PLAN 2009-2015

STRATEGIC ENVIRONMENTAL ASSESSMENT



For: Cork City Council

City Hall
Cork



By: CAAS (Environmental Services)

4th Floor, 7 Red Cow Lane
Smithfield
Dublin 7



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Table of Contents

Section 1	Introduction	1
1.1	Terms of Reference	1
1.2	SEA Definition	1
1.3	Legislative Context.....	1
1.4	Content of the SEA Statement	1
1.5	Implications of SEA for the Plan	1
Section 2	How Environmental Considerations were integrated into the City Development Plan	3
2.1	Consultations	3
2.2	Environmental Sensitivities	3
2.3	Early Identification and Evaluation of Alternatives.....	4
2.4	Mitigation.....	9
Section 3	Environmental Report and Submissions & Observations.....	13
3.1	Introduction	13
3.2	SEA Scoping Consultations	13
3.3	Submissions and Observations.....	13
3.4	Environmental Report	13
Section 4	Alternatives and the Plan	15
4.1	Introduction	15
4.2	Summary Description of Alternative Scenarios	15
4.3	Summary Evaluation of Alternative Scenarios	19
4.4	Reasons for choosing the plan, as adopted, in light of the other reasonable alternatives dealt with	22
Section 5	Monitoring Measures	23
5.1	Introduction	23
5.2	Indicators and Targets	23
5.3	Sources	23
5.4	Reporting.....	23
5.5	Responsibility	24
5.6	Thresholds	24

Section 1 Introduction

1.1 Terms of Reference

This is the SEA Statement of the Cork City Development Plan 2009-2015 Strategic Environmental Assessment.

1.2 SEA Definition

SEA is a systematic process of predicting and evaluating the likely environmental effects of implementing a plan, or other strategic action, in order to ensure that these effects are appropriately addressed at the earliest appropriate stage of decision-making on a par with economic and social considerations.

1.3 Legislative Context

Directive 2001/42/EC of the European Parliament and of the Council, of 27 June 2001, on the assessment of the effects of certain plans and programmes on the environment, referred to hereafter as the SEA Directive, introduced the requirement that SEA be carried out on plans and programmes which are prepared for a number of sectors, including land use planning.

The SEA Directive was transposed into Irish Law through the European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 (SI No. 435 of 2004), and, the Planning and Development (Strategic Environmental Assessment) Regulations 2004 (SI No. 436 of 2004). Both sets of regulations became operational on 21 July 2004.

The SEA Directive and the instruments transposing it into Irish Law require that after the adoption of a plan or programme, the plan or programme making authority is required to make a Statement available to the public, the competent environmental authorities and, where relevant, neighbouring countries. This Statement is referred to as an SEA Statement (DEHLG, 2004)¹.

¹ Department of the Environment, Heritage and Local Government (2004) *Implementation of SEA Directive (2001/42/EC): Guidelines for Regional Authorities and Planning Authorities* Dublin: Government of Ireland.

1.4 Content of the SEA Statement

The SEA Statement is required to include information summarising:

- a) how environmental considerations have been integrated into the plan,
- b) how
 - the environmental report,
 - submissions and observations made to the planning authority on the proposed Plan and Environmental Report, and
 - any transboundary consultations [this is not relevant to this SEA]

have been taken into account during the preparation of the plan,

- c) the reasons for choosing the plan, as adopted, in the light of the other reasonable alternatives dealt with, and
- d) the measures decided upon to monitor the significant environmental effects of implementation of the plan.

1.5 Implications of SEA for the Plan

As a result of the aforementioned legislation, the review of the Cork City Development Plan was required to undergo SEA.

The findings of the SEA were expressed in a Draft Environmental Report which was submitted to the Elected Members alongside the proposed Draft Plan. The purpose of the report was to provide a clear understanding of the likely environmental consequences of decisions regarding the future accommodation of growth in Cork City.

Changes made to the proposed Draft Plan were evaluated for their environmental consequences and the Draft Environmental Report was updated to become the Environmental Report.

The Environmental Report and the Draft Plan were placed on public display in August 2008.

Amendments made to the Draft Plan at each stage of the process which followed this period of public display were evaluated for their environmental consequences and these were presented to the Elected Members in the form of Addenda. On adoption of the Draft Plan, these Addenda were used to update the original Environmental Report into a final Environmental Report which accompanies the adopted Plan.

These amendments included alterations of, additions to and removal of Draft Plan provisions.

At each stage of the process the Elected Members were required by the legislation to take into account the findings of the Environmental Report.

Section 2 How Environmental Considerations were integrated into the City Development Plan

2.1 Consultations

The Environmental Protection Agency (EPA), the Department of the Environment, Heritage and Local Government (DEHLG) and the Department of Communications, Marine and Natural Resources (DCMNR) were all sent SEA scoping notices indicating that submissions or observations in relation to the scope and level of detail of the information to be included in the Environmental Report could be made to Cork City Council. An initial consultation meeting was held with the EPA in August 2007 and the information put forward by the EPA at this meeting was taken into account in the formulation of the scope of the SEA.

Further submissions were made by the EPA and the DEHLG on the City Development Plan and Environmental Report while they were on public display. These submissions resulted in updating a number of parts of the Environmental Report.

Further information on how the outputs of scoping consultations informed the process is provided under Section 3.2.

2.2 Environmental Sensitivities

2.2.1 Mapping and Early Communication

Environmental considerations were integrated into the Draft Plan before it was placed on public display for the first time.

Environmental sensitivities were mapped in order to identify which areas of the City would be most sensitive to development and would suffer the most adverse effects if growth was to be accommodated in those areas unmitigated.

The sensitivities were communicated to the Plan-making team on a regular basis from the outset of the Plan preparation process. Identifying areas with the most limited carrying

capacity in the City helped future growth to be diverted away from these areas.

The sensitivities considered by the SEA included the following:

- Designated ecological sites;
- Land cover;
- Soil Type;
- Water Framework Directive (WFD) Risk Assessments for Surface Water Catchments, Transitional Waters and Ground Waters;
- WFD Register of Protected Areas;
- EPA River Water Quality Monitoring;
- EPA 2001-2005 Assessment of Trophic Status of Estuaries and Bays 2001-2005;
- Changes in Estuarine and Bay Water Quality between the monitoring periods 1999-2003 and 2001-2005;
- GSI Aquifer Vulnerability;
- Flooding Data;
- IPPC licensed facilities and Waste Licensed facilities;
- Seveso II Sites and Buffers
- Waste Water Treatment Infrastructure/Capacity Needs;
- Drinking water supply;
- Drinking water quality;
- Archaeological Heritage;
- Architectural Heritage; and,
- Visual Analysis including landscape sensitivities.

A number of these sensitivities are mapped on

Figure 2.1 and Figure 2.2.

Overlay mapping

A Geographical Information System (GIS) was used in order to weight the above sensitivities and map them overlapping each other - this allowed the identification of where where most sensitivities within and surrounding the City occur.

Figure 2.4 shows the overlay map of sensitivities that was use by the SEA.

Environmental sensitivities are indicated by colours which range from extreme vulnerability (red) to high vulnerability (orange) to moderate vulnerability (yellow) and low vulnerability (green). Where the mapping shows a concentration of environmental sensitivities there is an increased likelihood that development will conflict with these sensitivities and cause environmental deterioration. This is particularly the case where the cumulative development of small-scale projects gradually causes a slow deterioration of a resource.

2.3 Early Identification and Evaluation of Alternatives

A range of potential alternative scenarios for the types of planning strategies adopted for the City Development Plan were identified at an early stage in the process and evaluated for their likely significant environmental effects see Section 4.

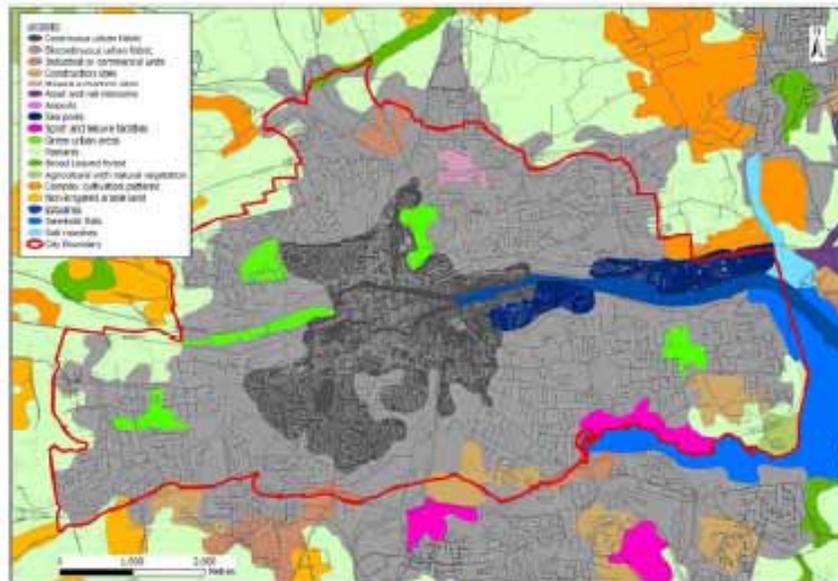
The environmental sensitivities mapping shown on Figure 2.1, Figure 2.2 and

Figure 2.4 was used in order to predict and evaluate the environmental effects of implementing the scenarios.

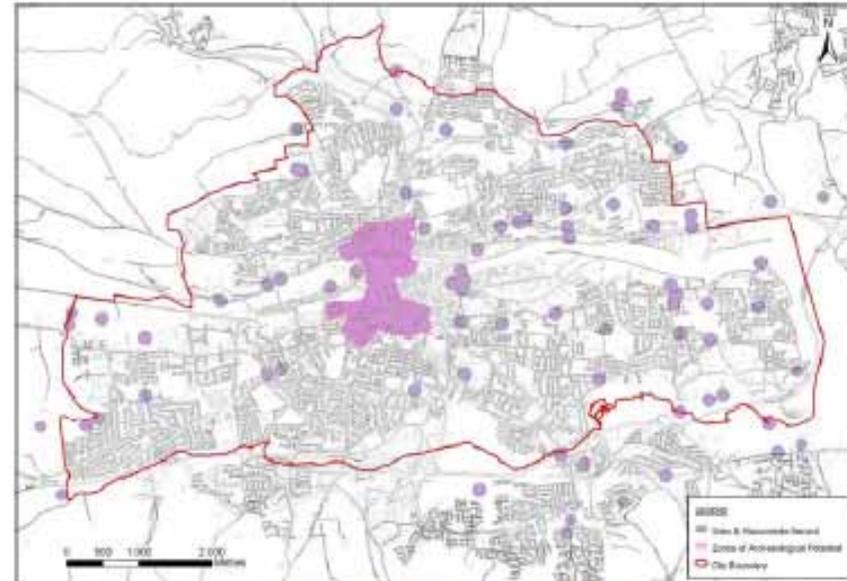
Communication of the findings of this evaluation helped the Plan-making team to make an informed choice as to which alternative was to be put before the Elected Members as the proposed Plan.

Communication of this evaluation to the Elected Members through the Environmental Report helped the Elected Members to make an informed choice with regard to the making of the City Development Plan.

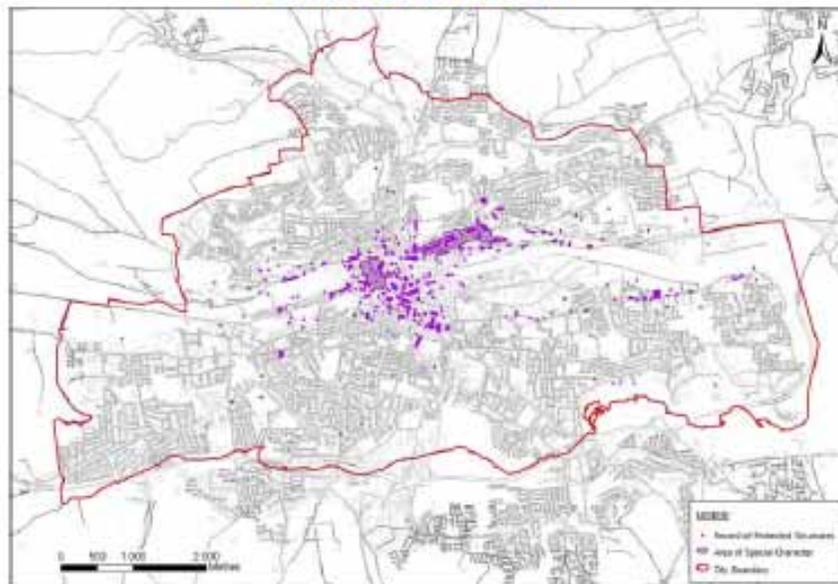
Mitigation measures which arose from the evaluation and which were recommended for integration into the Plan are detailed under Section 2.4 of this report.



CORINE Land Cover



Archaeological Heritage

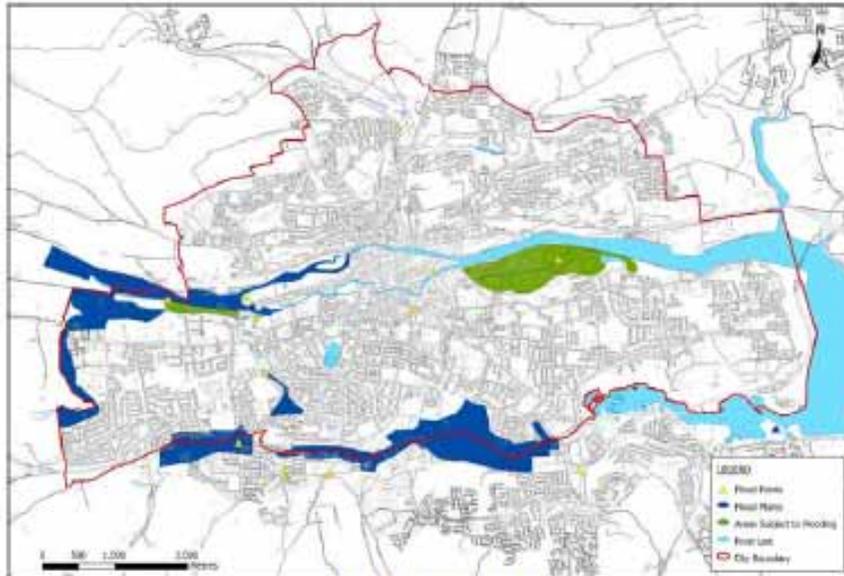


Architectural Heritage



Designated Ecological Sites

Figure 2.1 Environmental Sensitivities - Plate 1



Flooding Data

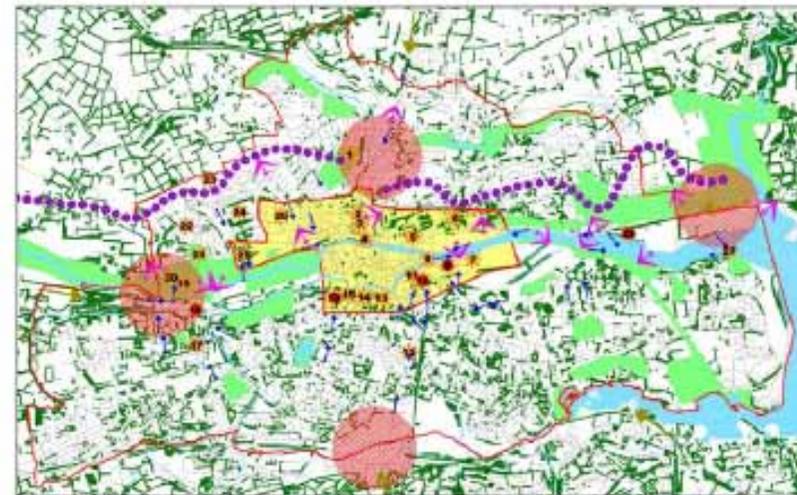


Figure 3.22 Visual Analysis

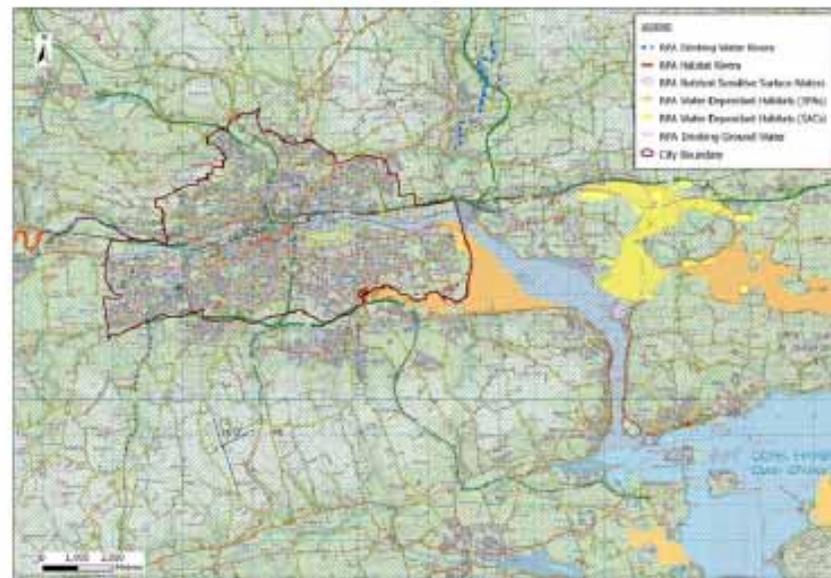


CAAS for Cork City Council

Landscape

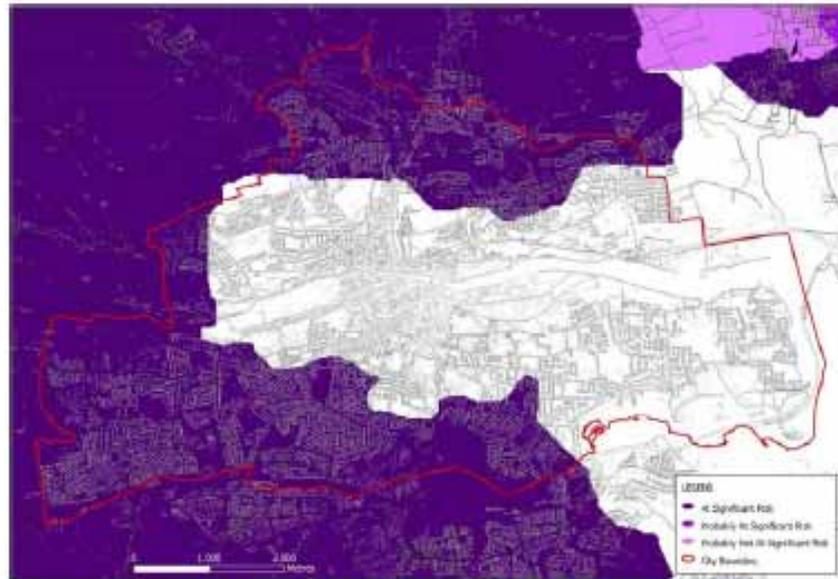


Groundwater Risk Assessment

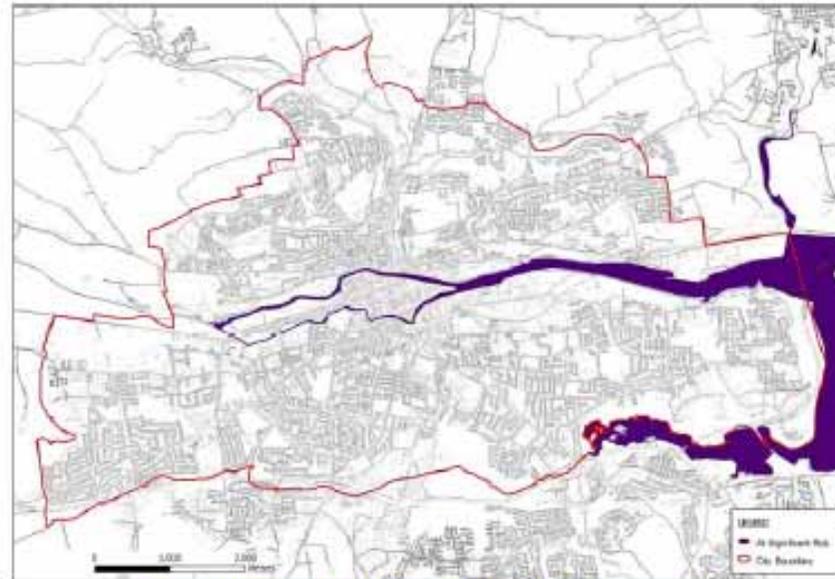


WFD Register of Protected Areas

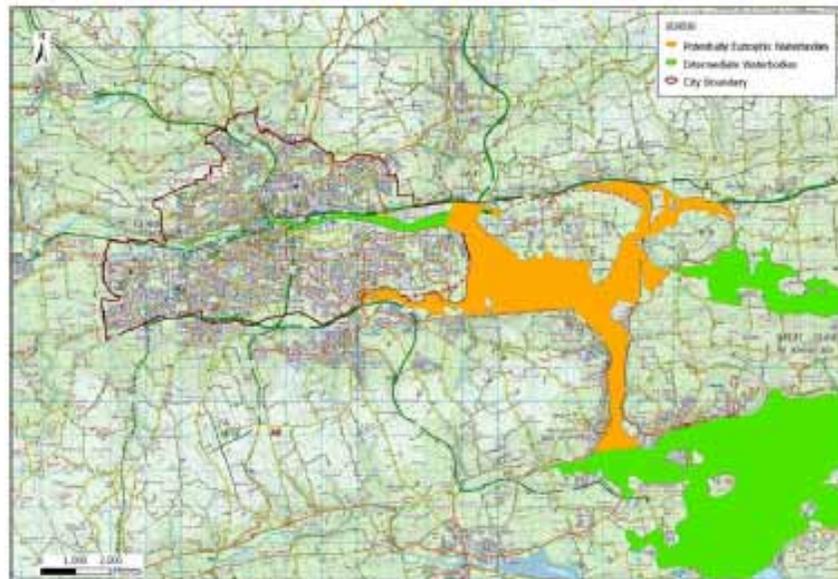
Figure 2.2 Environmental Sensitivities - Plate 2



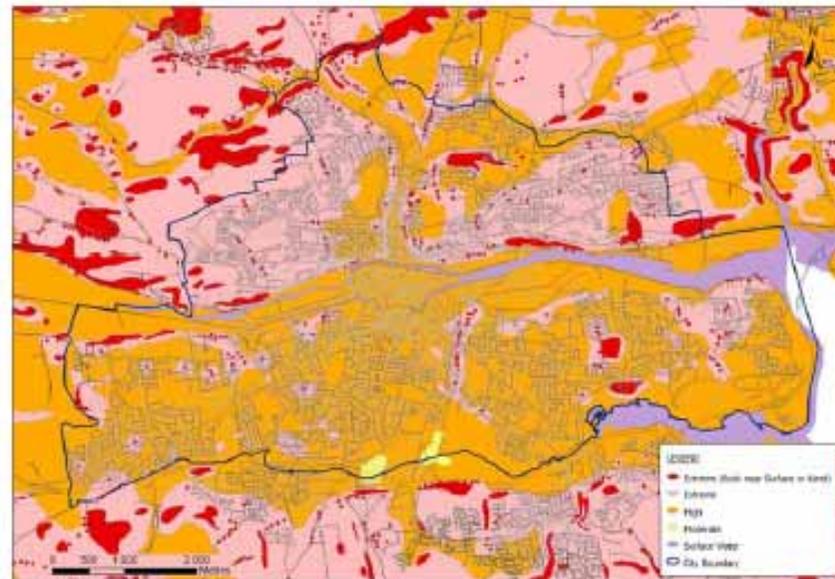
Surface Water Catchment Risk Assessment



Transitional Waters Risk Assessment



Quality of Transitional Waters



Groundwater Vulnerability

Figure 2.3 Environmental Sensitivities - Plate 3

Maps of sensitivities weighted and mapped overlapping each other in order to identify where most sensitivities within and surrounding the City occur

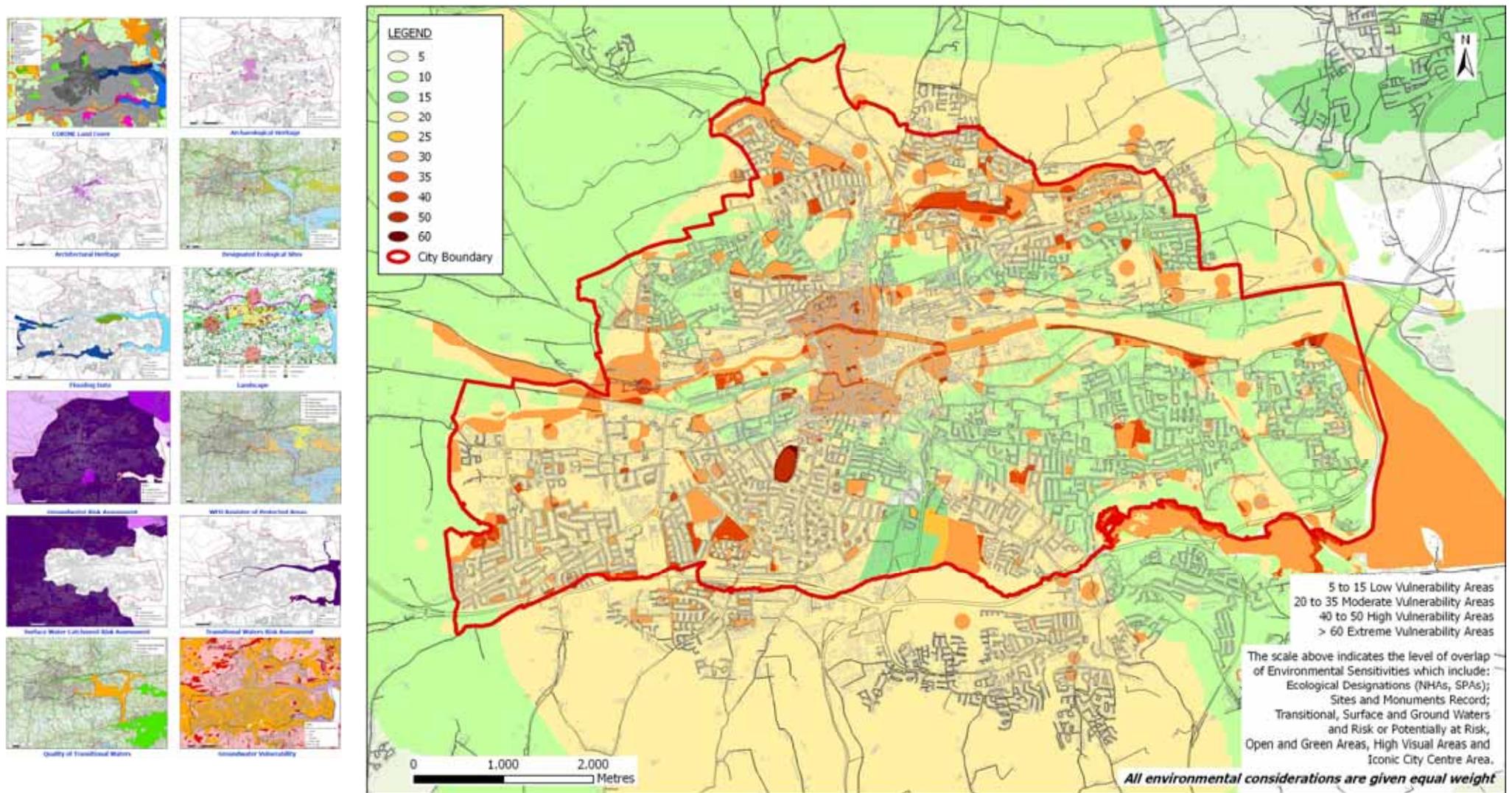


Figure 2.4 Overlay of Environmental Sensitivities

2.4 Mitigation

2.4.1 Introduction

In order to comply with various statutory requirements and in order to comply with the requirements of the statutory consultees, mitigation measures² were recommended to be integrated into the Plan.

The topics which these mitigation measures cover are as follows:

- Biodiversity and Flora and Fauna
- Contaminated Soils
- Water and Waste Water
- Flooding
- Drinking Water
- Archaeological Heritage
- Architectural Heritage
- Landscape

The mitigation measures are detailed in Section 9 of the Environmental Report and reproduced on the following pages.

² Mitigation measures are measures envisaged to prevent, reduce and, as fully as possible, offset any significant adverse impacts on the environment of implementing a human action, be it a plan, programme or project. Mitigation measures can be roughly divided into those that: prevent effects; reduce the magnitude or extent, probability and/or severity of effect; repair effects after they have occurred, and; compensate for effects, balancing out negative impacts with other positive ones. Where there are likely to be significant negative effects, consideration should be given in the first instance to preventing these effects or, where this is not possible, to reducing the effects.

Mitigation measure	Reason for inclusion	Integration into Plan
<p><i>Biodiversity and Flora and Fauna I</i></p> <p>The plan shall support achieving the objectives and actions contained in the Cork City Draft Biodiversity Action Plan 2008 - 2013 (Cork City Council, 2008).</p>	Compliance with Habitats Directive	Integrated through Policy 10.15
<p><i>Biodiversity and Flora and Fauna II</i></p> <p>No projects giving rise to significant adverse direct, indirect or secondary impacts on Natura 2000 sites arising from their size or scale, land take, proximity, resource requirements, emissions (disposal to land, water or air), transportation requirements, duration of construction, operation, decommissioning or from any other effects shall be permitted on the basis of this Plan (either individually or in combination with other plans or projects)³.</p>	Compliance with Habitats Directive	Integrated through Policy 10.9
<p><i>Biodiversity and Flora and Fauna III</i></p> <p>Where required, all land use plans and projects arising from this plan will be screened for the need to undertake Appropriate Assessment under Article 6 of the Habitats Directive.</p>	Compliance with Habitats Directive	Integrated through Policy 10.9
<p><i>Contaminated Soils I</i></p> <p>The findings of the 2007 South Docklands Contamination Study show that areas within the Docklands have been contaminated to the extent that under certain circumstances they may pose a risk to human health. As other sites within the wider Cork City area have in the past been host to land uses similar to the heavy industry and fuel generation/ storage depots uses of the South Docklands, additional contaminated sites may exist. A study shall be undertaken in order to identify such contaminated sites and to suggest measures for their safe rehabilitation.</p>	Protection of Human Health and Quality of Environmental Receptors	Integrated partially through Policies 12.29 and 12.30
<p><i>Water and Waste Water I</i></p> <p>Development under the Plan shall be preceded by sufficient capacity in the public waste water treatment plant and appropriate extensions in the existing public waste water treatment catchment.</p>	Compliance with Water Framework Directive and Urban Waste Water Treatment Directive (91/271/EEC) (amended by Directive 98/15/EEC)	Integrated through various Plan provisions including Environmental Infrastructure and Management Aim and Overall Objectives and Policy 12.3
<p><i>Water and Waste Water II</i></p> <p>Where appropriate the relevant policies and objectives of the South Western River Basin Management Plan and associated programme of measures shall be integrated into the City Development Plan when available.</p>	Compliance with Water Framework Directive	Integrated through Policy 12.14
<p><i>Water and Waste Water III</i></p> <p>Landuses shall not give rise to the pollution of ground or surface waters during the construction or operation of developments. This shall be achieved through the adherence to best practice in the design, installation and management of systems for the interception, collection and appropriate disposal or treatment of all surface waters and effluents.</p> <p>It is the policy of Cork City Council to protect the city's ground water resource as a possible future potable water supply for the city. Development which threatens the quality of the City's groundwater will not be permitted.</p>	Compliance with Water Framework Directive	Integrated through various Plan provisions including Policies 12.16 and 12.14
<p><i>Flooding I</i></p> <p>The Plan shall be updated as necessary in order to integrate the relevant Lee Catchment Flood Risk Assessment and Management Study management options.</p>	Minimisation of flood risk	Integrated through Policy 12.10

³ Except as provided for in Section 6(4) of the Habitats Directive, viz. There must be:
(a) no alternative solution available,
(b) imperative reasons of overriding public interest for the plan to proceed; and
(c) adequate compensatory measures in place.

Mitigation measure	Reason for inclusion	Integration into Plan
<p><i>Flooding II</i></p> <p>The EPA's <i>Climate Change: Scenarios and Impacts for Ireland</i> report (2003)⁴ states that the recommendations outlined by Carter (1990)⁵ (subject to one modification) remain a sensible approach to coastal management for sea level change. These recommendations are as follows:</p> <ul style="list-style-type: none"> • no new building or new development within 100 m of 'soft' shoreline (Carter (1990) advocated a distance of 50 m); • no further reclamation of estuary land; • no removal of sand dunes, beach sand or gravel; and, • all coastal defence measures to be assessed for environmental impact. <p>The CDP shall require new developments to comply with these measures.</p>	Minimisation of flood risk	Integrated indirectly and partially through Policies 12.10, 12.11, 12.12 and 12.13
<p><i>Flooding III</i></p> <p>Where possible - the landward migration of coastal features, such as dunes and marshes, shall be facilitated as these features form an integral part of the coastal system - both physically and ecologically - and provide protection against wave energy through dissipation.</p>	Minimisation of flood risk	Integrated indirectly and partially through Policies 12.10, 12.11, 12.12 and 12.13
<p><i>Flooding IV</i></p> <p>It is the policy of Cork City Council to have regard to the recommendations and provisions of the Department of the Environment, Heritage and Local Government planning guidelines entitled "The Planning System and Flood Risk Management" in the preparation of plans (both statutory and non statutory) and assessment of planning applications when adopted.</p>	Compliance with Government planning guidelines entitled "The Planning System and Flood Risk Management" when adopted.	Integrated through Policy 12.12
<p><i>Flooding V</i></p> <p>Landuses shall not give rise to increases in the run-off characteristics above those that currently exist.</p>	Minimisation of flood risk	Integrated through Policies 12.9, 12.11 and 12.13
<p><i>Drinking Water I</i></p> <p>Existing and new populations under the CDP shall be served with clean and wholesome drinking water. Cork City Council will achieve compliance as a minimum with the 48 parameters set out under the European Communities (Drinking Water) Regulations (No. 2) 2007 and will resolve any outstanding issues in order to achieve the removal of the City's public water supply from the EPA remedial action list of public water supplies.</p>	Compliance with European Communities (Drinking Water) Regulations (No.2), 2007.	Integrated through various Plan provisions including Policies 12.1, 12.2, 12.3 and 12.5
<p><i>Archaeological Heritage I</i></p> <p>Landuses shall not give rise to significant losses of the integrity, quality or context of archaeological material - except as may be conditioned or directed by the appropriate heritage agencies. This shall be achieved by the application of appropriate design standards and criteria.</p>	Compliance with Valletta Convention 1992 and National Monuments Acts	Integrated through various Plan provisions including Policies 9.2, 9.3, 9.4, 9.5, 9.6 and 9.11
<p><i>Archaeological Heritage II</i></p> <p>It shall be ensured that pre-development archaeological testing, surveying, monitoring and recording are carried out where appropriate.</p>	Compliance with Valletta Convention 1992 and National Monuments Acts	Integrated through various Plan provisions including Policies 9.12, 9.17 and 9.16

⁴ Department of Geography, National University of Ireland, Maynooth (2003) *Environmental RTDI Programme 2000-2006 Climate Change: Scenarios and Impacts for Ireland (2000-LS-5.2.1-M1) Final Report* Wexford: Environmental Protection Agency

⁵ Carter, R.W.G. (1990) *Sea level changes. In: McWilliams, B. (ed.) Climate Change: Studies on the Implications for Ireland.* pp. 110-151: Dublin: Government of Ireland.

Mitigation measure	Reason for inclusion	Integration into Plan
<p><i>Architectural Heritage I</i></p> <p>In order to protect, strengthen and improve the presentation and the general character of Cork City, alterations and interventions to Protected Structures shall be executed to the highest conservation standards (Venice Charter and subsequent ICOMOS Charters), and shall not detract from their significance or value.</p>	<p>Compliance with Planning and Development Act 2000 and Architectural Heritage and Historic Monuments Act 1999</p>	<p>Integrated through Policies 9.21 and 9.23</p>
<p><i>Architectural Heritage II</i></p> <p>New developments shall contribute to improving their surrounding neighbourhood, and not result in any significant loss in the integrity, quality or character of the area, where appropriate. Planning applications for developments in sensitive areas shall be accompanied by an assessment undertaken by an accredited conservation architect, where appropriate, detailing the impacts of the relevant development upon the special interest and character of the surrounding architectural heritage. Cork City Council shall be consulted at an early stage in this regard in order to determine whether there is a need for such an assessment or for specific mitigation measures.</p>	<p>Compliance with Planning and Development Act 2000 and Architectural Heritage and Historic Monuments Act 1999</p>	<p>Integrated through various Plan provisions including Policies 9.21, 9.22, 9.23, 9.24, 9.27, 9.28, 9.29, 9.31 and 9.30</p>
<p><i>Architectural Heritage III</i></p> <p>The Record of Protected Structures shall be extended on a phased basis in order to incorporate recommendations from the National Inventory of Architectural Heritage.</p>	<p>Compliance with Planning and Development Act 2000 and Architectural Heritage and Historic Monuments Act 1999</p>	<p>Integrated partially through Policy 9.19</p>
<p><i>Landscape I</i></p> <p>The Cork City Landscape Strategy makes recommendations and guidelines in relation to the key landscape elements as well a number of key sites. These recommendations are applied to the City Development Plan and shall be adhered to by development granted permission under the Plan.</p>	<p>Protection of the landscape</p>	<p>Integrated through Policies 10.1, 10.2, 10.3, 10.4, 10.5, 10.6, 10.7, 10.8</p>

Section 3 Environmental Report and Submissions & Observations

3.1 Introduction

This section details how both the Environmental Report and submissions and observations made to the planning authority on the Environmental Report and SEA process have been taken into account during the preparation of the plan.

3.2 SEA Scoping Consultations

The EPA, DEHLG and DCMNR were all sent SEA scoping notices indicating that submissions or observations in relation to the scope and level of detail of the information to be included in the Environmental Report could be made to Cork City Council. An initial consultation meeting was held with the EPA in August 2007 and the information put forward by the EPA at this meeting was taken into account in the formulation of the scope of the SEA.

3.3 Submissions and Observations

Submissions were made by the EPA and the DEHLG on the City Development Plan and Environmental Report while they were on public display.

The submission from the EPA raised a number of points with regard to the following topics:

- Integration of SEA and Plan;
- Water;
- Water Framework Directive;
- Drinking Water;
- Waste Water Treatment;
- Water Conservation;
- Groundwater Protection;
- Bathing Water;
- Flood Prevention;
- Biodiversity;
- Habitat and Wetland Mapping;
- EU Protected Habitats and Species in Ireland;
- Non- Designated Habitats and Species;
- Alien species and Noxious Weeds;
- Cultural Heritage and Landscape;
- Air and Climatic Factors;

- Strategic Environmental Assessment;
- SEA and Infrastructure Planning;
- Obligations with respect to national and EU Environmental Legislation;
- Environmental Report - Consultation;
- Environmental Report - Existing Environment;
- Environmental Report - Environmental Objectives;
- Environmental Report - Assessment of Environmental Effects;
- Environmental Report - Mitigation Measures;
- Environmental Report - Monitoring Measures; and,
- Appropriate Assessment.

This submission resulted in updating Section 9 (Mitigation Measures) of the Environmental Report. Also, a new Strategic Environmental Objective (SEO) was added to the Environmental Report and used in order to facilitate the evaluation of effects on flooding which would be likely to occur as a result of implementing the Plan and the alternatives.

The submission from the DEHLG noted, among other things, that archaeological issues were satisfactorily outlined in the report.

No changes were made to the Environmental Report arising from the DEHLG submission.

3.4 Environmental Report

The findings of the SEA were expressed in a Draft Environmental Report which was submitted to the Elected Members alongside the proposed Draft Plan. The purpose of the report was to provide a clear understanding of the likely environmental consequences of decisions regarding the future accommodation of growth in Cork City.

Changes made to the proposed Draft Plan were evaluated for their environmental consequences and the Draft Environmental Report was updated to become the Environmental Report.

The Environmental Report and the Draft Plan were placed on public display in August 2008.

Amendments made to the Draft Plan at each stage of the process which followed this period of public display were evaluated for their environmental consequences and these were presented to the Elected Members in the form of Addenda. On adoption of the Draft Plan, these Addenda were used to update the original Environmental Report into a final Environmental Report which accompanies the adopted Plan.

These amendments included alterations of, additions to and removal of Draft Plan provisions.

At each stage of the process the Elected Members were required by the legislation to take into account the findings of the Environmental Report.

Environmental considerations have also been integrated into the adopted Plan through a number of mitigation measures including certain measures which are set out in Section 9 of the Environmental Report.

Section 4 Alternatives and the Plan

4.1 Introduction

This section summarises the alternative scenarios for the City Development Plan which were identified and evaluated for likely environmental and planning effects as part of the SEA process and identifies the reasons for choosing the Plan, as adopted, in the light of the other reasonable alternatives dealt with.

4.2 Summary Description of Alternative Scenarios

4.2.1 Scenario 1 – Minimalist Approach

Taking a more cautious and restrained approach to new development Scenario 1 - *Minimalist Approach* (see Figure 4.1) prioritises the protection of the City's natural environment together with the amenity and character of existing residential areas.

The entire plan area under this scenario would be covered by blanket policies providing for conservation and protection. Limited brownfield development would be allowed in the docklands. Limited expansion would be allowed within District Centres.

This scenario would involve the adoption of planning policies which seek to maintain the status quo as far as possible and limit the development potential of growth areas and brownfield sites to reflect the established pattern and character of development in the City.

New development would be limited in terms of scale and would manifest itself in the form of lower density development. This would restrain Key Development Areas from attaining a sustainable mix of population and employment and providing the critical mass of activity to sustain an integrated public transport network for the City.

4.2.2 Scenario 2 – Selective Concentrations

Taking a more balanced approach to new development Scenario 2 - *Selective Concentrations* (see Figure 4.2) - seeks to focus higher density development in suitable strategic locations throughout the City while protecting the residential amenity and character of established residential areas by restricting inappropriately scaled and designed development.

Under this scenario, Key Development Areas would be developed / redeveloped to accommodate a higher level of new urban development and deliver the maximum quantitative efficiency of new population density and commercial floorspace. Key Development Areas identified under this scenario include Blackpool, Docklands and South Mahon with Future Development Areas identified at Tivoli and Tramore Road.

Development within the Blackpool and Docklands Key Development Areas would be likely to proceed in the short term as the strategies for these areas are sufficiently developed at present through the current Development Plan or Local Area Plans. Local Area Plans would be a prerequisite for redevelopment within Mahon and the Tivoli and Tramore Road Future Development Areas.

District Centres under this scenario - which traditionally were mainly retail centres - would be planned in order to evolve into mixed use urban centres, providing a range of services and employment to their local population. A new District Centre would be proposed for the North-West of the City.

4.2.3 Scenario 3 – Market-led Approach

Scenario 3 - *Market-led Approach* - involves the relaxation of planning controls throughout the City creating a situation where favourable consideration is given to higher density development in all areas with less weight given

to existing residential or architectural character or environmental amenity.

The scenario would be likely to result in a dispersed pattern of growth with sporadic pockets of high density development scattered throughout the City predominantly in the southside.

The location and nature of development would be completely dependent upon market demand and applications would be evaluated on a case-by-case basis by the Council. Although the locations where development would occur are difficult to predict, development would likely be disproportionately spread throughout the south side of the City, centering on established growth and employment areas like Bishopstown, Douglas, and Mahon. If development occurred in this fashion it would be likely that the north of the City and areas with and adjacent to the RAPID areas would be neglected.

A number of the City's informal green spaces, established sports grounds and currently protected landscape ridges would be open to speculative development. Both these and brownfield sites would be considered suitable for high density, higher rise development with pockets of intensely developed urban areas arising. The consequent transformation of the skyline and character of Cork City would be significant.

District Centres under this scenario would be likely to continue to accommodate retail growth with mixed use urban development rare or non-existent at these locations. Expansion of these centres would be uncontrolled and would respond to market demand. This would likely result in a deterioration in the economic vitality of the City Centre and an inequitable growth of established District Centres on the Southside to the neglect of the northside.

Development would be less concentrated and spread over wider areas than would be the case with regard to Scenario 2. Development within these areas would not be required to adhere to the strategies that have been developed through the current Development Plan and/or Local Area Plans.

Due to the unpredictability of development under this scenario no mapping of likely development arising has been provided.

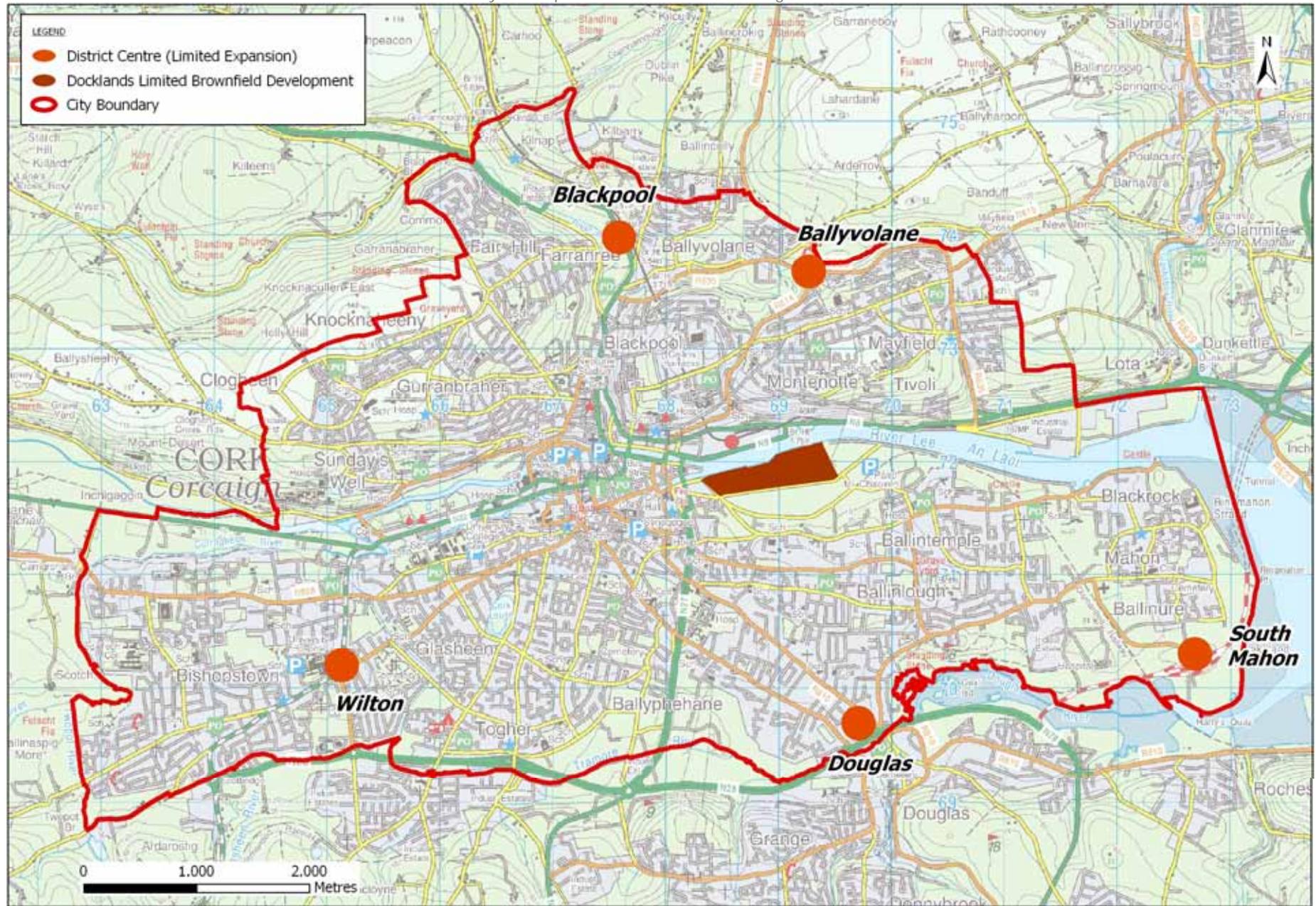


Figure 4.1 Alternative Scenario 1 - *Minimalist Approach*

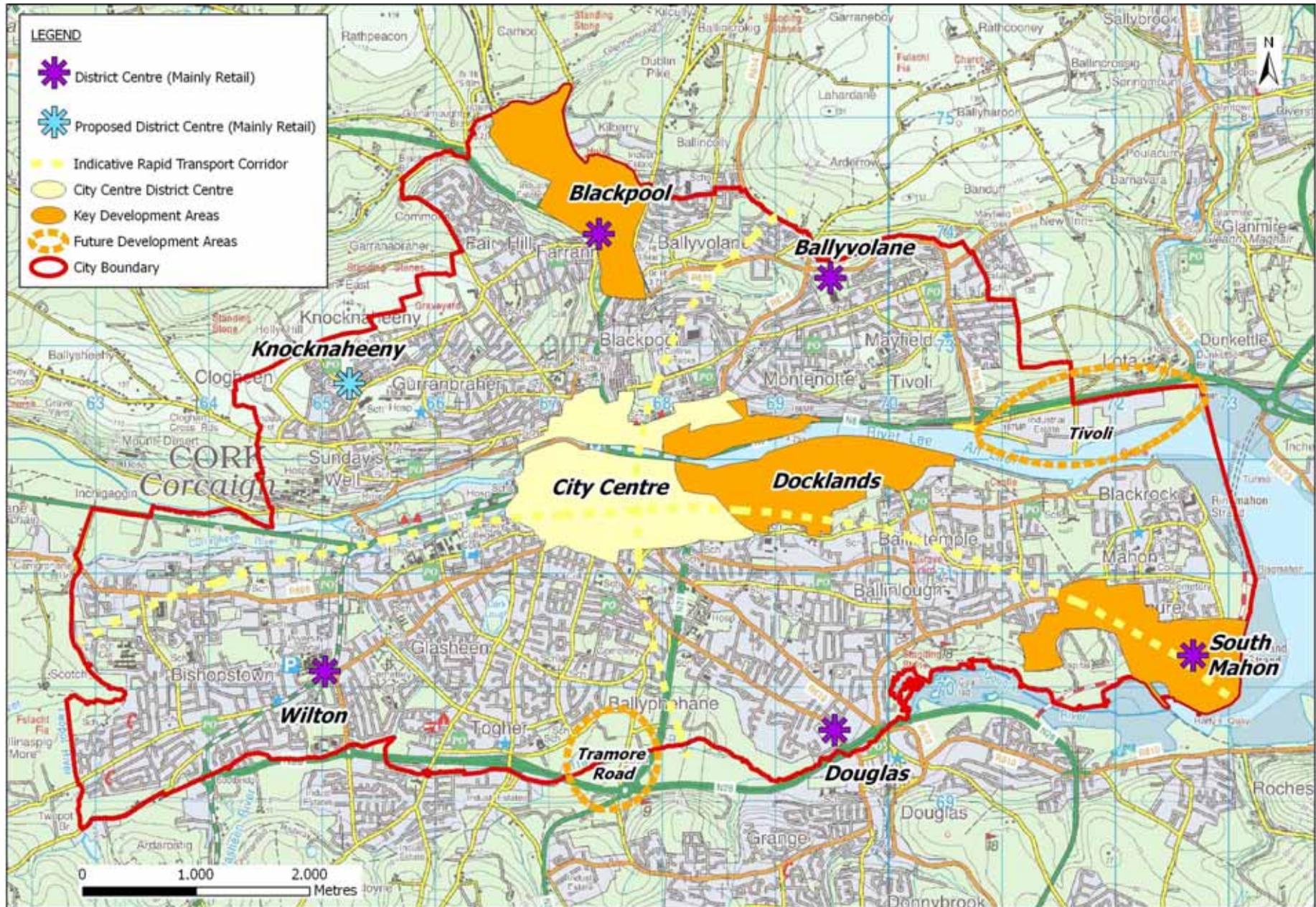


Figure 4.2 Alternative Scenario 2 - *Selective Concentrations*

4.3 Summary Evaluation of Alternative Scenarios

4.3.1 Scenario 1 – *Minimalist Approach*

The economic and social implications of this scenario would be significantly negative. The adoption of this scenario would mean that the City's remaining development capacity would be realised in a very short period of time placing intense pressure on the City's already tight administrative boundary. As a consequence the positive regeneration benefits which would be released by the redevelopment of Key Development Areas for more intensive urban development would be compromised and in the longer term problems of urban decay and decline would result. Development under this scenario would be pushed out into the City's suburbs beyond the administrative boundary.

Protecting the City's natural environment and ensuring a degree of stability and certainty in established residential areas with regard to their future development makes for sound planning. However, to ensure that the City's current form and character determines the future shape and scope of the City would in the long run be to the detriment of the City's social, economic and environmental fabric overall.

A purely minimalist approach runs contrary to national planning policy which seeks higher density development on City centre, inner suburban and brownfield sites in order to minimise suburban sprawl and maximise investment in high quality public transport systems. To encourage a scenario where the established urban fabric and environment dictate the extent, scale and form of all new development would be to curb modernisation and sustainability in the City's transport system, architecture and urban form. It would serve to impact negatively on the City's economy as business would be forced to locate outside the City to achieve the floor areas and scale of development needed to prosper and from a transport perspective the City would fail to achieve the critical mass necessary to develop a high quality integrated public transport system - it would be unlikely that the two Indicative

Rapid Transport Corridors would be realised under this scenario.

As a result of the minimalist and protectionist approach taken by this scenario, the RAPID (Revitalising Areas by Planning, Investment and Development) Areas - the areas with the highest level of economic and social deprivation which are in need of good access to services and employment as well as an upgraded environment - within the City would be unlikely to significantly improve under this scenario and would be likely to further decay and decline.

4.3.2 Scenario 2 – *Selective Concentrations*

The approach taken by Scenario 2 - *Selective Concentrations* - is consistent with national planning policy and aims to maximise urban development on inner suburban and brownfield sites in order to minimise suburban sprawl and maximise investment in high quality public transport systems. The more intensive urban development provided for by this scenario would enable the delivery of a critical mass of population to underpin new infrastructure and services; in particular, a high quality public transport service for the City.

With future population and economic growth targeted at these key areas, other areas - including existing residential areas - would experience development relative to their carrying capacity which would facilitate the protection of the character and amenity of these areas.

By accommodating new populations through the redevelopment of strategic development areas and key brownfield sites within the plan area this approach would reduce the need to accommodate these populations by way of greenfield development across the wider Cork metropolitan region and facilitate the development of sustainable communities where population and employment is developed in union thereby reducing travel to work times and traffic congestion and encouraging sustainable living patterns. By helping to reduce pressure on

greenfield land adverse environmental impacts across the region would be reduced.

By providing for targeted development including that identified at the Docklands, South Mahon and Tramore Road, this scenario would be more likely than Scenarios 1 or 3 to enable the realisation of two Indicative Rapid Transport Corridors.

By providing a framework for targeting certain growth within and close by RAPID areas this scenario would be likely to provide local populations with a greater access to services and employment as well as an upgraded environment thereby helping to overcome the economic and social deprivation found within these areas.

4.3.3 Scenario 3 – *Market-led Approach*

Encouraging higher densities on all infill and brownfield sites, both within inner mixed use urban areas and outer predominantly residential suburban areas of the City, would result in a dispersed pattern of settlement in the City with sporadic pockets of high density development scattered throughout the City predominantly in the southside.

The absence of a coherent settlement strategy for the delivery of high density development in the City would compromise the delivery of a proper public transport system and contribute to the development of a disjointed and chaotic building form in the City.

Opening the City's sports grounds and ridge landscapes to speculative development would place important community infrastructure and the City's defining landscape assets under threat and possibly render them lost or irreparably damaged for future generations.

Established residential communities would lack a certainty regarding their development future and de-prioritising issues of building and natural heritage conservation, character and context would be to the neglect of the City's rich history and culture.

The location and nature of development would be completely dependent upon market demand and applications would be evaluated on a case-by-case basis by the Council. Although the locations where development would occur are

difficult to predict, development would likely be disproportionately spread throughout the south side of the City, centering on established growth and employment areas like Bishopstown, Douglas, and Mahon. If development occurred in this fashion it would be likely that the north of the City and areas with and adjacent to the RAPID areas would be neglected.

The loose planning controls under this scenario would be likely to result in a more dispersed development across the plan area. Such development would not support the development of the two Indicative Rapid Transport Corridors which would be more likely to be achieved by Scenario 2.

	Likely to Improve status of SEOs	Probable Conflict with status of SEOs - unlikely to be mitigated	Potential Conflict with status of SEOs - would be mitigated	Uncertain interaction with status of SEOs
Alternative Scenario 1 <i>Minimalist Approach</i>	Inside the plan area: <ul style="list-style-type: none"> • Designated and Non-Designated Ecology • Human Health • Water Quality & Waste Water Treatment • Cultural Heritage • The Landscape • Flooding 	Inside the plan area: <ul style="list-style-type: none"> • Greenhouse Gas Emissions & Car dependency • Brownfield development Outside the plan area: <ul style="list-style-type: none"> • Water Quality & Waste Water Treatment • Human Health • Greenhouse Gas Emissions & Car dependency • The Landscape • Non- Designated Ecology 	Outside the plan area: <ul style="list-style-type: none"> • Designated Ecology • Flooding 	
Alternative Scenario 2 <i>Selective Concentrations</i>	Inside the plan area: <ul style="list-style-type: none"> • Water Quality & Waste Water Treatment • Human Health • Greenhouse Gas Emissions and Car dependency • Brownfield Development Outside the plan area: <ul style="list-style-type: none"> • Designated and Non-Designated Ecology • Water Quality & Waste Water Treatment • Human Health • Greenhouse Gas Emissions & Car dependency • The Landscape • Flooding 		Inside the plan area: <ul style="list-style-type: none"> • Designated and Non-Designated Ecology • The Landscape • Cultural Heritage • Human Health • Flooding 	
Alternative Scenario 3 <i>Market-led Approach</i>	Inside the plan area: <ul style="list-style-type: none"> • Brownfield Development Outside the plan area: <ul style="list-style-type: none"> • Designated and Non-Designated Ecology • Water Quality & Waste Water Treatment • Human Health • Greenhouse Gas Emissions & Car dependency • The Landscape • Flooding 	Inside the plan area: <ul style="list-style-type: none"> • Water Quality & Waste Water Treatment • Human Health • The Landscape • Cultural Heritage • Non- Designated Ecology • Flooding 	Inside the plan area: <ul style="list-style-type: none"> • Designated Ecology 	Inside the plan area: <ul style="list-style-type: none"> • Greenhouse Gas Emissions & Car dependency

Table 4.1 Evaluation of Alternative Scenarios against SEOs showing how Scenarios 1 and 3 have more areas of likely conflict with the existing environment than Scenario 2.

4.4 Reasons for choosing the plan, as adopted, in light of the other reasonable alternatives dealt with

The Alternatives that were analysed were produced at an earlier - more embryonic - stage to facilitate evaluation and selection of a plan - having regard, *inter alia* to environmental consequences.

On the basis of the analysis provided in the Environmental Report which is summarised above, **Scenario 1 *Minimalist Approach*** would be likely to be detrimental to the environment outside the City's boundary as it would be likely to give rise to a high frequency and magnitude of significant, adverse, cumulative, secondary environmental effects as a result of development occurring outside of the City boundary. The economic and social implications of this scenario would be significantly negative.

Scenario 3 *Market-led Approach* would be likely to be detrimental to the environment within the City boundary as it would give rise to a high frequency and magnitude of significant adverse environmental effects.

Scenario 2 *Selective Concentrations* would be likely to result in the most beneficial effects with regard to the protection of the environment - both within and outside of the City. This scenario would be likely to result in the least amount of unmitigatable environmental effects. Consequently, Scenario 2 emerges as the most environmentally sustainable option.

In addition, having regard to planning considerations - including social and economic effects - Scenario 2 *Selective Concentrations* provides a better balance between environmental protection and economic and social development than the other two scenarios.

The City Development Plan that emerged from the Plan preparation process has a close correlation to Scenario 2. Although Scenario 2 potentially conflicts with a number of environmental objectives and could potentially cause a number of significant adverse environmental effects, the City Development Plan which has been developed with reference to this scenario has integrated into it a number of objectives which mitigate against these conflicts and effects.

Section 5 Monitoring Measures

5.1 Introduction

The SEA Directive requires that the significant environmental effects of the implementation of plans and programmes are monitored. The Environmental Report puts forward proposals for monitoring the likely significant environmental effects of implementing the City Development Plan (CDP) which are detailed below.

Monitoring enables, at an early stage, the identification of unforeseen adverse effects and the undertaking of appropriate remedial action. In addition to this, monitoring can also play an important role in assessing whether the CDP is achieving its environmental objectives and targets - measures which the CDP can help work towards - whether these need to be reexamined and whether the proposed mitigation measures are being implemented.

5.2 Indicators and Targets

Monitoring is based around the indicators which were chosen earlier in the process. These indicators allow quantitative measures of trends and progress over time relating to the Strategic Environmental Objectives used in the evaluation. Focus is given to indicators which are relevant to the likely significant environmental effects of implementing the CDP and existing monitoring arrangements will be used in order to monitor the selected indicators. Each indicator to be monitored will be accompanied by the relevant target(s) which were identified with regard to the relevant legislation.

Table 5.1 overleaf shows the indicators and targets which have been selected with regard to the monitoring of the Plan.

5.3 Sources

Measurements for indicators should come from existing monitoring sources and no new monitoring should be required to take place. Existing monitoring sources exist for each of the indicators and include those maintained by Cork City Council and the relevant authorities e.g. the Environmental Protection Agency, the National

Parks and Wildlife Service and the Central Statistics Office.

The *Development Management Process* in Cork City Council will provide passive monitoring of various indicators and targets on an application by application basis. Where significant adverse effects - including positive, negative, cumulative and indirect - are likely to occur upon, for example, entries to the RMP, entries to the RPS or ecological networks as a result of the undertaking of individual projects or multiple individual projects such instances should be identified and recorded and should feed into the monitoring evaluation.

5.3.1 Excluded Indicators and Targets

As noted on Table 5.1 overleaf, monitoring data on Indicator W3 (Groundwater Quality Standards and Threshold Values under Directive 2006/118/EC) may not be available for the preliminary monitoring evaluation as the groundwater threshold values to which this indicator relates have not yet been identified by the EPA.

In addition, future monitoring data for Indicators C1i (Percentage of population within the plan area travelling to work or school by public transport or non-mechanical means) and C1ii (Average distance travelled to work or school by the population of the CASP region) will not be available until the results of the next CSO Census are made available. It is recommended that data for these indicators be sourced for the SEA of the next review of the Plan.

5.4 Reporting

A preliminary monitoring evaluation report on the effects of implementing the CDP will be prepared to coincide with the Manager's report to the elected members on the progress achieved in securing CDP objectives within two years of the making of the plan (this Manager's report is required under section 15 of the 2000 Planning Act).

5.5 Responsibility

Cork City Council is responsible for collating existing relevant monitored data, the preparation of a monitoring report, the publication of this report and, if necessary, the carrying out of corrective action.

It is recommended that a Steering Committee be established to oversee the monitoring process.

5.6 Thresholds

Thresholds at which corrective action will be considered are as follows:

- boil notices on drinking water;
- fish kills;
- court cases taken by the DEHLG regarding impacts upon archaeological heritage including entries to the Record of Monuments and Places; and,
- complaints received from statutory consultees regarding avoidable impacts resulting from development which is granted permission under the CDP.

Environmental Component	Selected Indicator(s)	Selected Target(s)	Source
Biodiversity, Flora and Fauna	<p>B1: Percentage of relevant habitats and designated ecological sites lost as a result of implementation of the CDP</p> <p>B2: Number of significant adverse impacts, including direct, cumulative and indirect impacts, to relevant habitats, geological features, species or their sustaining resources in designated ecological sites by development within or adjacent to these sites as a result of implementation of the CDP</p> <p>B3: Percentage loss of connectivity between areas of local biodiversity as a result of implementation of the CDP – as evidenced from a resurvey of the Data contained in Fig 3.22 and CORINE mapping</p>	<p>B1: No losses of relevant habitats, species or their sustaining resources in designated ecological sites as a result of implementation of the CDP</p> <p>B2: No significant adverse impacts, including direct, cumulative and indirect impacts, to relevant habitats, geological features, species or their sustaining resources in designated ecological sites by development within or adjacent to these sites as a result of implementation of the CDP</p> <p>B3: No ecological networks or parts thereof which provide significant connectivity between areas of local biodiversity to be lost without remediation as a result of implementation of the CDP</p>	<p>CORINE Mapping, DEHLG Records & Development Management Process in Cork City Council</p> <p>Development Management Process in Cork City Council & Consultation with the National Parks and Wildlife Service</p> <p>Remote sensing of trees and hedges combined with CORINE mapping</p>
Population and Human Health	HH1: Occurrence (any) of a spatially concentrated deterioration in human health	HH1: No spatial concentrations of health problems arising from environmental factors	Cork City Council, EPA, Health and Safety Authority
Soil	S1: Area of brownfield land developed during plan period.	S1: Reduced availability of brownfield land (subject to availability on the open market, the demand for such land and the ability for such lands to be sustainably re-used within the provisions of the CDP) at the end of the CDP lifespan	Development Management Process in Cork City Council

Environmental Component	Selected Indicator(s)	Selected Target(s)	Sources
Water	<p>W1: Biotic Quality Rating (Q Value)</p> <p>W2: Trophic Status (ATSEBI)</p> <p>W3: Groundwater Quality Standards and Threshold Values under Directive 2006/118/EC</p> <p>W4: Number of developments granted permission on lands which pose - or are likely to pose in the future - a significant flood risk</p>	<p>W1i: To maintain a biotic quality rating of Q4, in line with the requirement to achieve good water status under the Water Framework Directive, by 2015</p> <p>W1ii: To improve biotic quality ratings, where possible, to Q5</p> <p>W2: To maintain or to improve trophic status, where relevant, to unpolluted in line with the requirement to achieve good water status under the Water Framework Directive, by 2015</p> <p>W3: Compliance with Groundwater Quality Standards and Threshold Values under Directive 2006/118/EC</p> <p>W4: Minimise developments granted permission on lands which pose - or are likely to pose in the future - a significant flood risk</p>	<p>EPA</p> <p>EPA</p> <p>As noted under Section 5.3.1, monitoring data may not be available for this indicator when the monitoring evaluation is being prepared.</p> <p>Development Management Process in Cork City Council</p>
Air and Climatic Factors	<p>C1i: Percentage of population within the plan area travelling to work or school by public transport or non-mechanical means</p> <p>C1ii: Average distance travelled to work or school by the population of the CASP region</p>	<p>C1i: An increase in the percentage of the population travelling to work or school by public transport or non-mechanical means</p> <p>C1ii: A decrease in the average distance travelled to work or school by the population of the CASP region</p>	<p>Central Statistics Office:</p> <p>As noted under Section 5.3.1, future monitoring data may not be available for these indicators until results from the next Census are made available.</p>

Environmental Component	Selected Indicator(s)	Selected Target(s)	Sources
Material Assets	M1: Number of new developments granted permission which cannot be adequately served by a public waste water treatment plant over the lifetime of the CDP	M1: No new developments granted permission which cannot be adequately served by a public waste water treatment plant over the lifetime of the CDP	Development Management Process in Cork City Council
Cultural Heritage	<p>CH1: Number of unauthorised developments occurring which result in full or partial loss to entries to the Record of Monuments and Places - including Zones of Archaeological Potential - and the context of the above within the surrounding landscape where relevant.</p> <p>CH2i: Number of unauthorised developments occurring which result in physical loss or loss entries to the Record of Protected Structures and/or their context within the surrounding landscape where relevant.</p> <p>CH2ii: Number of additions to the Record of Protected Structures and the number of additional ACAs, where appropriate.</p>	<p>CH1: No unauthorised developments occurring which result in full or partial loss to entries to the Record of Monuments and Places - including Zones of Archaeological Potential - and the context of the above within the surrounding landscape where relevant.</p> <p>CH2i: No unauthorised developments occurring which result in physical loss or loss entries to the Record of Protected Structures and/or their context within the surrounding landscape where relevant.</p> <p>CH2ii: Make Additions to the Record of Protected Structures and make additional ACAs, where appropriate.</p>	<p>Development Management Process in Cork City Council</p> <p>Development Management Process in Cork City Council</p>
Landscape	L1: Number of complaints received from statutory consultees regarding avoidable impacts on the landscape - especially with regard to the City's ridgelines, the panoramic and linear views of the City, the character of the City's Gateways, the iconic City Core and areas of high visual amenity - resulting from development which is granted permission under the CDP	L1: No developments permitted which result in avoidable impacts on the landscape - especially with regard to the City's ridgelines, the panoramic and linear views of the City, the character of the City's Gateways, the iconic City Core and areas of high visual amenity - resulting from development which is granted permission under the CDP	Development Management Process in Cork City Council

Table 5.1 Selected Indicators, Targets and Monitoring Sources