

SEA STATEMENT

OF THE

SLIGO AND ENVIRONS DEVELOPMENT PLAN 2010-2016

STRATEGIC ENVIRONMENTAL ASSESSMENT



For:

Sligo Borough Council

City Hall
Quay Street
Sligo
County Sligo



&

Sligo County Council

County Hall
Riverside
Sligo
County Sligo



By: CAAS (Environmental Services)

4th Floor, 7 Red Cow Lane
Smithfield
Dublin 7



NOVEMBER 2009

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 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.....	14
3.1	Introduction	14
3.2	SEA Scoping Submissions	14
3.3	Submissions and Observations.....	15
3.4	Environmental Report	15
Section 4	Alternatives and the Plan	17
4.1	Introduction	17
4.2	Summary Description of the Scenarios.....	17
4.3	Summary of the Evaluation of Environmental Effects of the Alternative Scenarios.....	21
4.4	Reasons for choosing the plan, as adopted, in light of the other reasonable alternatives	22
Section 5	Monitoring Measures	24
5.1	Introduction	24
5.2	Indicators and Targets	24
5.3	Sources	24
5.4	Reporting.....	24
5.5	Responsibility	25
5.6	Thresholds	25

Section 1 Introduction

1.1 Terms of Reference

This is the SEA Statement of the Sligo and Environs Development Plan 2010-2016 Strategic Environmental Assessment (SEA).

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 Sligo and Environs Development Plan 2010-2016 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 Sligo and its Environs.

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 February 2009.

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 took into account the findings of the Environmental Report and/or the Addenda as appropriate.

Section 2 How Environmental Considerations were integrated into the Development Plan

2.1 Consultations

The designated environmental authorities - the Environmental Protection Agency (EPA), the Department of the Environment, Heritage and Local Government (DEHLG) and the Department of the Department of Communications, Marine and Natural Resources (DCMNR) - were 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 the Councils. SEA scoping submissions were made by both the EPA and the DEHLG. These submissions were taken into account during the formulation of the scope of the SEA.

In addition, the EPA made a submission on the Development Plan and Environmental Report while it was on public display. This submission resulted in the updating of a number of parts of the Environmental Report.

Further information on how the aforementioned submissions 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 Sligo and its Environs 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 within the Plan area helped future growth to be diverted away from these areas.

The sensitivities considered by the SEA included the following:

- Designated ecological sites;
- Habitats;
- Land cover;
- Soil Type;
- Water Framework Directive (WFD) Risk Assessments for Rivers, Transitional Waters, Coastal Waters and Ground Waters;
- WFD Register of Protected Areas;
- EPA River Water and Lake Quality Monitoring;
- EPA Assessment of Trophic Status of Estuaries and Bays 2001-2005;
- GSI Aquifer Vulnerability and Productivity;
- Flooding Data;
- Waste Water Treatment Infrastructure/Capacity Needs;
- Drinking water supply;
- Drinking water quality;
- Archaeological Heritage;
- Architectural Heritage; and,
- Landscape Sensitivities and Scenic Routes.

A number of these sensitivities are mapped on Figure 2.1, Figure 2.2 and Figure 2.3.

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 most sensitivities within and surrounding the Plan area occur. Figure 2.4 shows the overlay map of sensitivities that was used 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

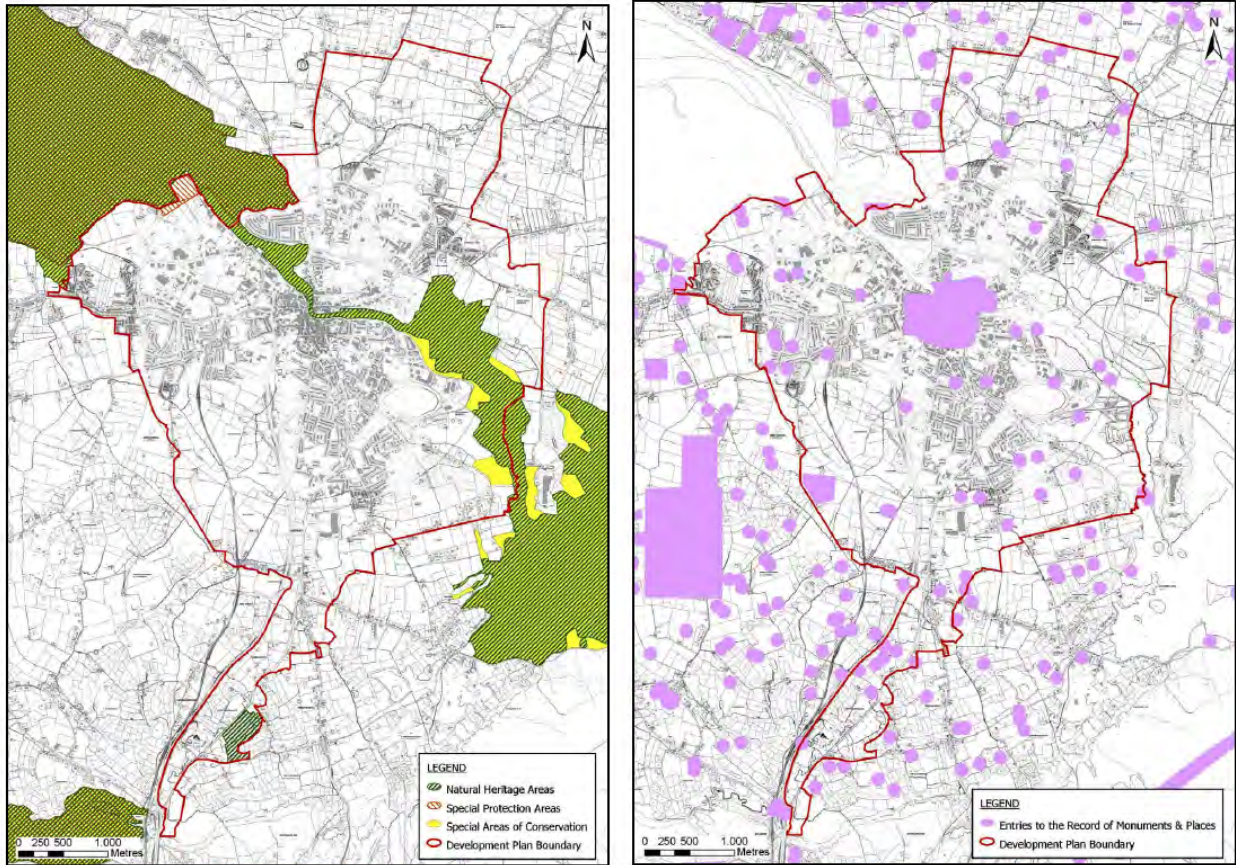
A range of potential alternative scenarios for the types of planning strategies adopted for the Development Plan were identified at an early stage in the process and evaluated for their likely significant environmental effects (see Section 4).

The environmental sensitivities mapping shown on Figure 2.1, Figure 2.2, Figure 2.3 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.

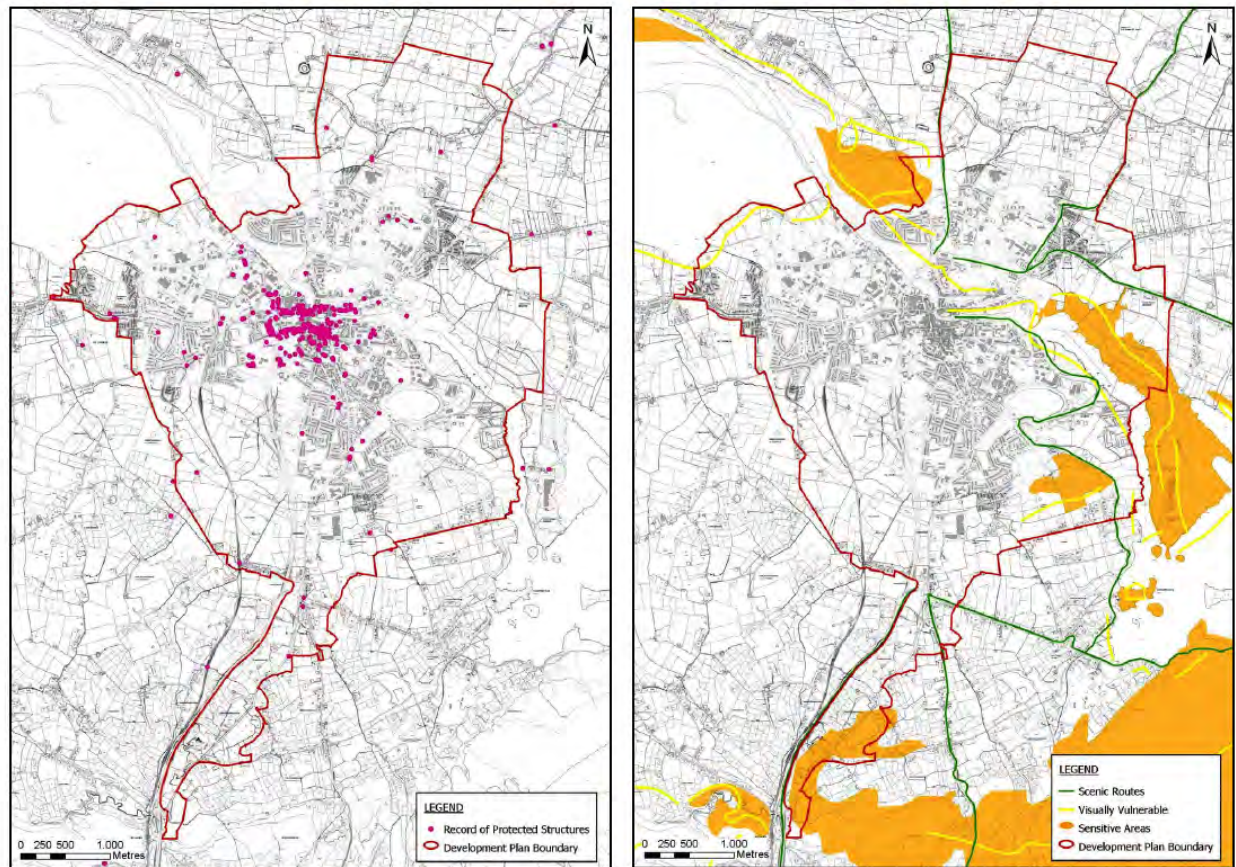
Communication of this evaluation to the Elected Members through the Environmental Report helped the Elected Members to make an informed choice with regard to the making of the Development Plan.

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



Designated Ecological Sites

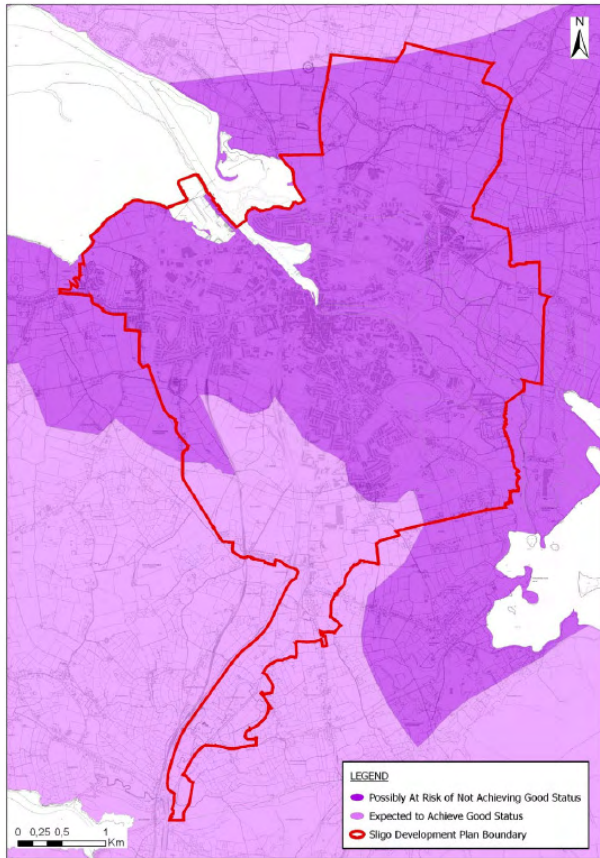
Archaeological Heritage



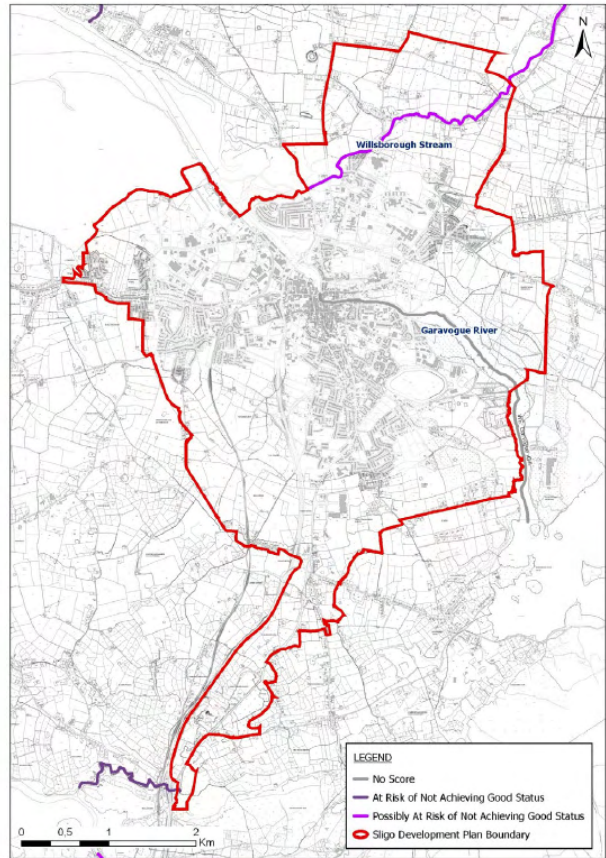
Architectural Heritage

Landscape Sensitivities

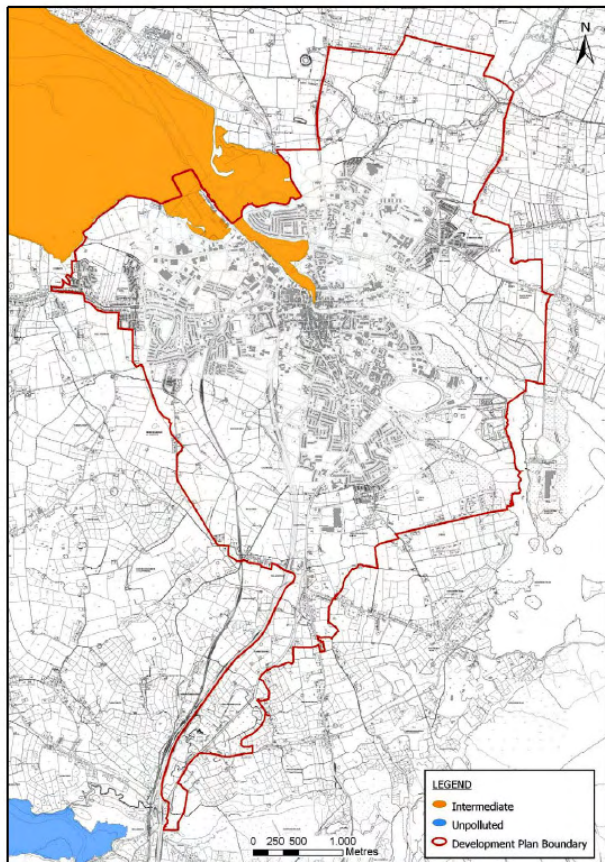
Figure 2.1 Environmental Sensitivities - Plate 1



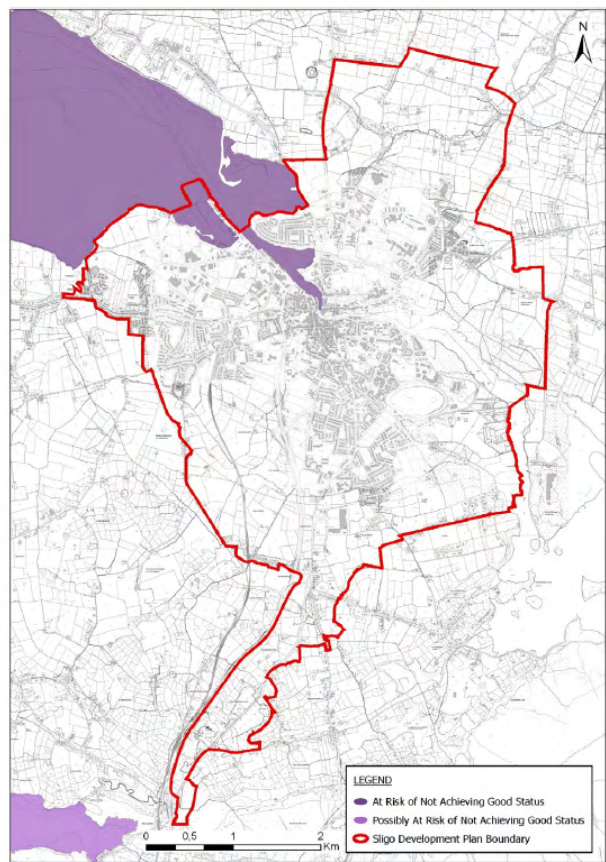
Groundwater Risk Assessment



Rivers Risk Assessment

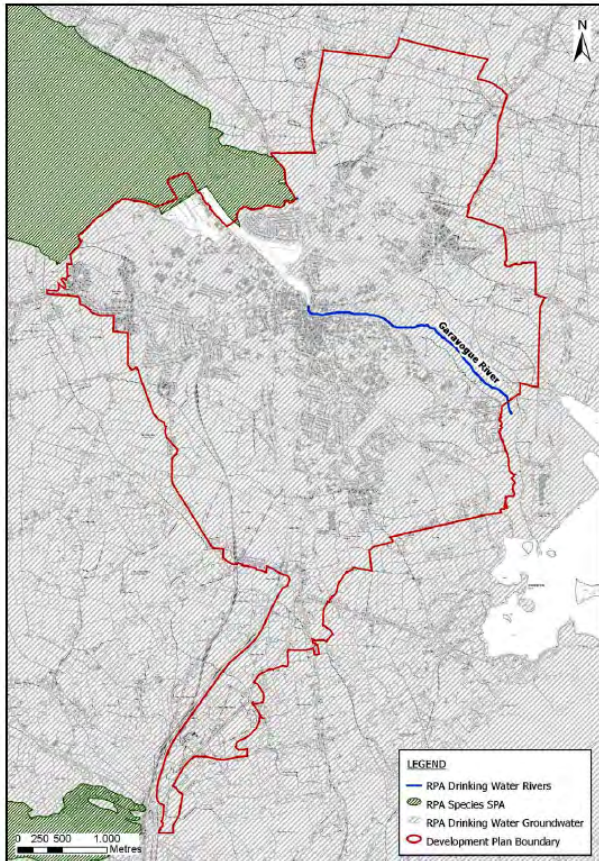


Quality of Transitional Waters

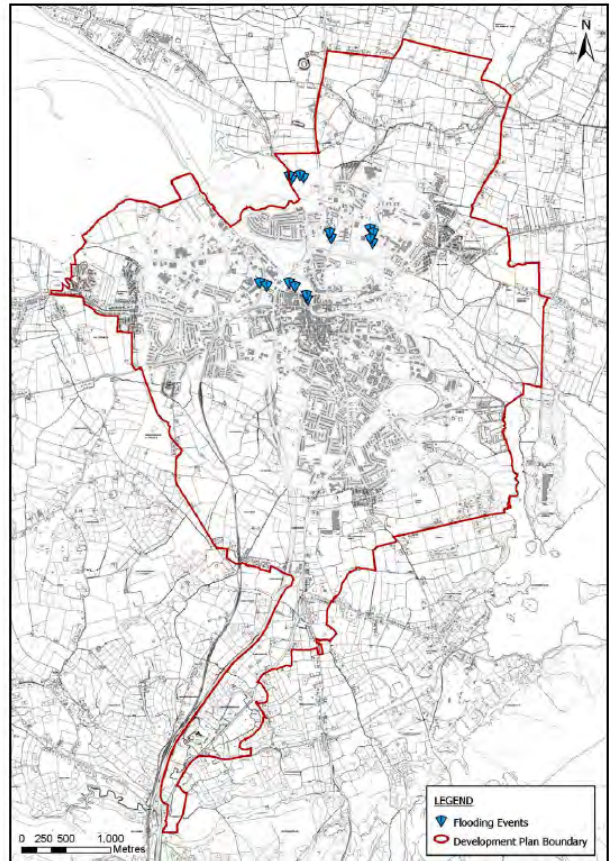


Transitional Waters Risk Assessment

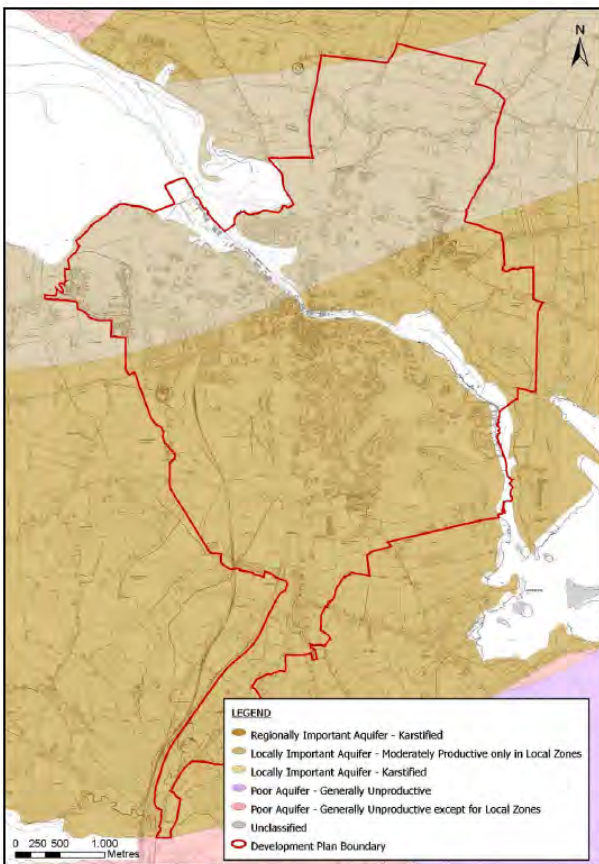
Figure 2.2 Environmental Sensitivities - Plate 2



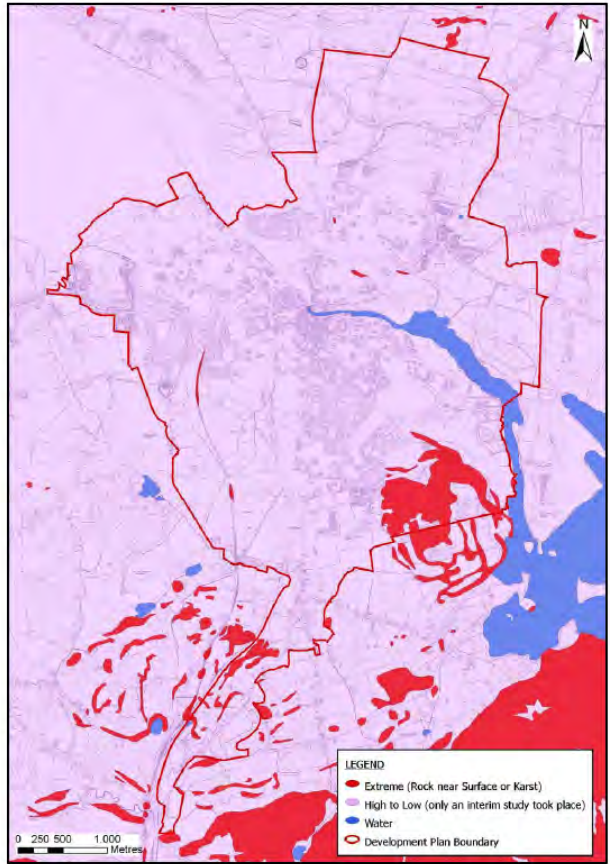
WFD Register of Protected Areas



Flood Events



Aquifer Productivity



Aquifer 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

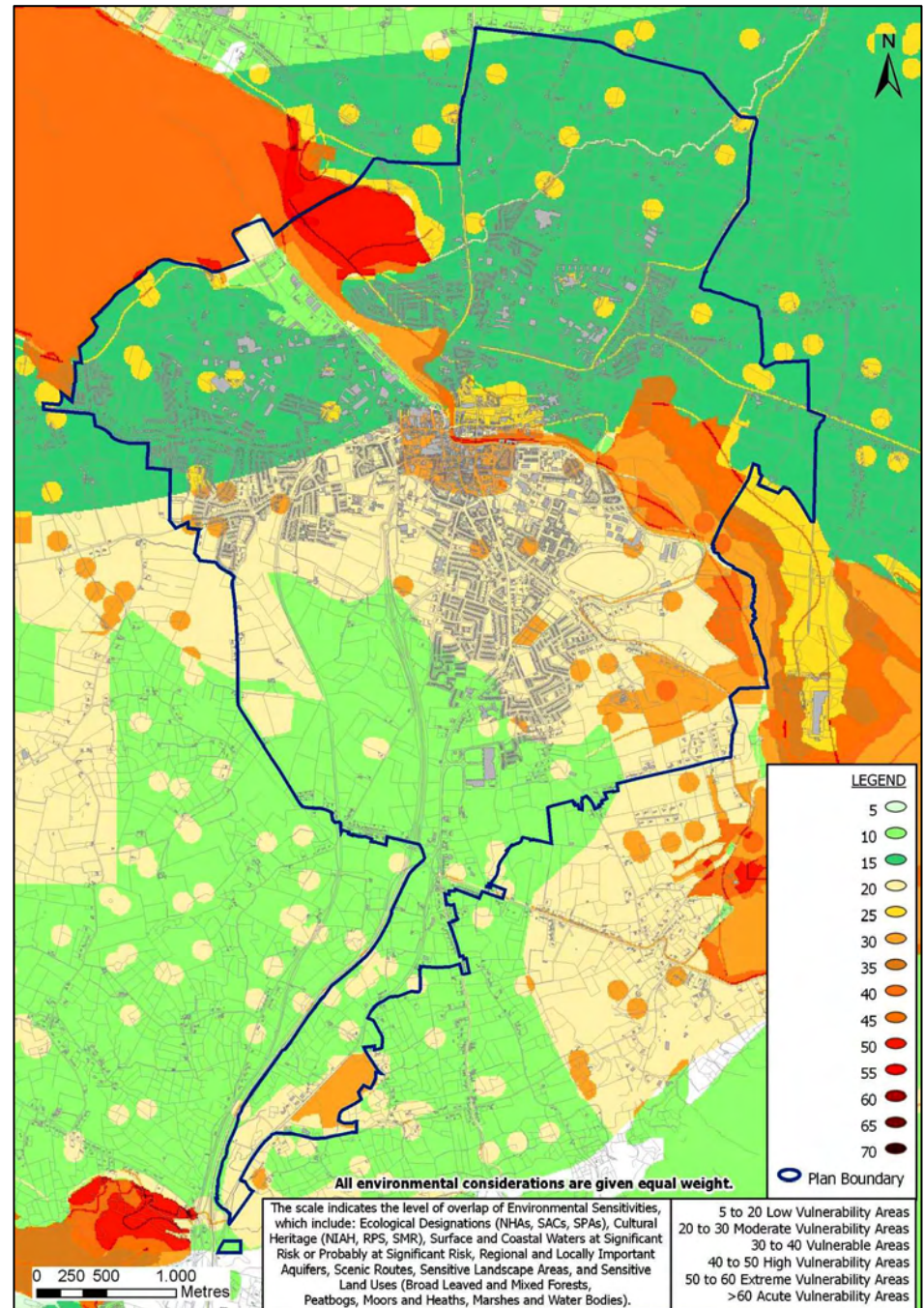
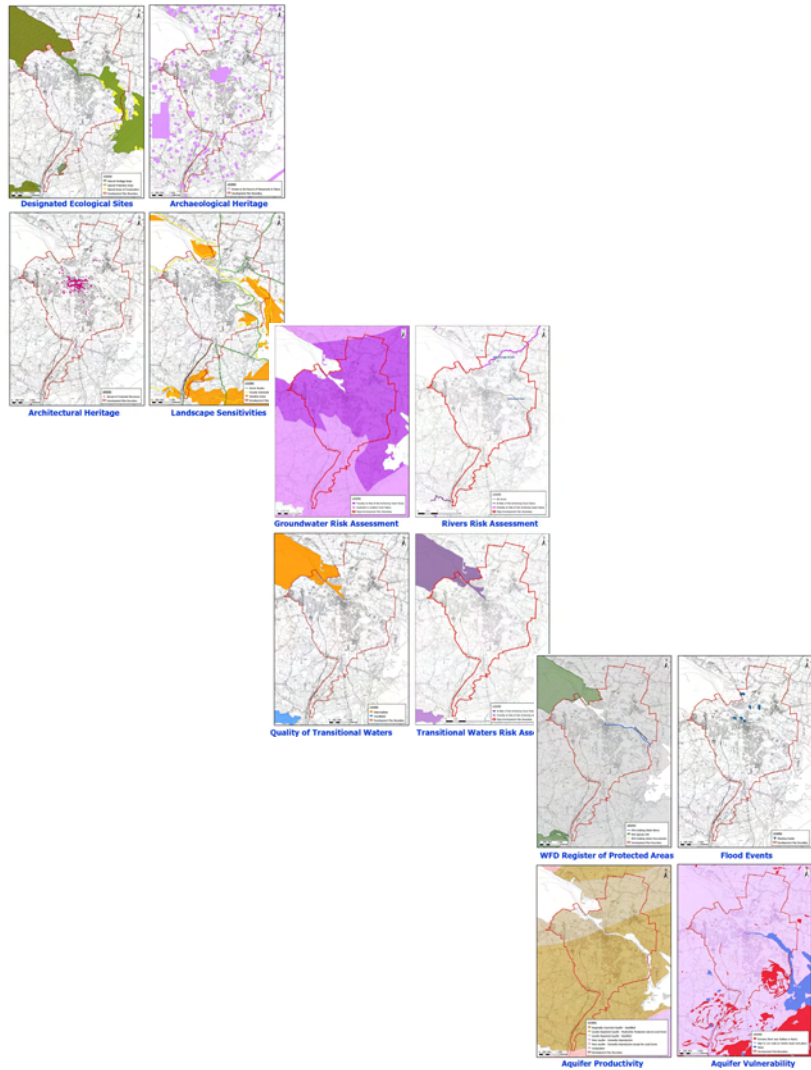


Figure 2.4 Overlay of Environmental Sensitivities

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
- Surface and Ground Water Protection
- Waste Water
- Drinking Water
- Flooding and Climatic Factors
- Soil and Contamination
- Cultural Heritage
- Landscape
- Waste Management

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.

Table 2.1 Selected Indicators, Targets and Monitoring Sources

Mitigation measure	Integration into Plan
<i>Biodiversity and Flora and Fauna I</i> Support achieving the objectives and actions contained in the County Sligo Heritage Plan 2007-2011.	Integrated through Objective O-H-1.
<i>Biodiversity and Flora and Fauna II</i> <i>Support the objectives of a Local Biodiversity Action Plan for Sligo when prepared.</i>	Integrated through Objective O-H-2.
<i>Biodiversity and Flora and Fauna III</i> 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 .	Integrated through Policy P-H-21.
<i>Biodiversity and Flora and Fauna IV</i> All subsequent plan-making and adoption of plans arising from this plan shall be screened for the need to undertake Appropriate Assessment under Article 6 of the Habitats Directive.	Integrated through Policy P-H-22.
<i>Biodiversity and Flora and Fauna V</i> Procedures shall be set up to ensure compliance by subsidiary plans with the requirement of Article 6 of the Habitats Directive.	Omitted from Policy as this is an operational provision.
<i>Biodiversity and Flora and Fauna VI</i> Habitat mapping projects which have begun shall be completed and their findings utilised to inform the development management process.	Integrated through Policy P-H-23.
<i>Biodiversity and Flora and Fauna VII</i> No ecological networks or parts thereof which provide significant connectivity between areas of local biodiversity are to be lost without remediation as a result of implementation of the Plan.	Integrated through Policy P-H-24.
<i>Biodiversity and Flora and Fauna VIII</i> To progress any City Bypass project or any road project which involves crossing a Natura 2000 site it will be necessary to:- <ul style="list-style-type: none"> • Demonstrate the need for the project in light of a do nothing context; • Examine the potential for intensifying/upgrading existing roads and routes; • Develop a comprehensive series of plausible alternative routes and design strategies (the latter to include long span and tunnel options); • Demonstrate that all routes take due account of, and accommodate, ecological considerations and legislative requirements; and, • Demonstrate that there will be no incursions onto or adverse effects on these habitats. 	Integrated through Policies P-N2000-1 to P-N2000-5.
<i>Surface and Ground Water Protection I</i> Address the significant water management issues identified in the Water Matters Consultation publication for the Western River Basin District.	Integrated through Objective O-WS-9.
<i>Surface and Ground Water Protection II</i> When published, the relevant policies and objectives of the Western River Basin Management Plans and associated Programmes of Measures shall be integrated into the Plan through amendment or otherwise.	Integrated through Objective O-WQ-7.
<i>Surface and Ground Water Protection III</i> Ongoing development of Sligo and Environs shall be undertaken in such a way so as not to compromise the quality of surface water - and associated habitats and species - and groundwater within the zone of influence of the Development Plan area.	Integrated through Policy P-WQ-12.

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	Integration into Plan
<p><i>Surface and Ground Water Protection IV</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>	Integrated through Policy P-WQ-13.
<p><i>Surface and Ground Water Protection V</i></p> <p>Developments granted permission shall not - individually or cumulatively - impact upon the ability of Rosses Point Seawater Bathing area to meet its requirements under the EU Directive 2006/7/EC on bathing water as implemented by the Bathing Water Quality Regulations 2008 (S.I. No. 79).</p>	Integrated through Policy O-WQ-8.
<p><i>Waste Water I</i></p> <p>Development under the Plan shall be preceded by sufficient waste water treatment and collection infrastructure and capacity.</p>	Integrated through Policies P-WW-5 and P-WW-6.
<p><i>Waste Water II</i></p> <p>The relevant recommendations set out in <i>Urban Waste Water Discharges in Ireland for Population Equivalents Greater than 500 Persons – A Report for the Years 2004 and 2005</i> [Office of Environment Enforcement- EPA, 2007] shall be implemented.</p>	Integrated through Objective O-WW-13.
<p><i>Waste Water III</i></p> <p>The feasibility of connecting of unsewered, areas including individual properties/ premises, serviced by septic tanks to existing and planned sewer networks shall be examined.</p>	Integrated through Objective O-WW-14.
<p><i>Drinking Water I</i></p> <p>Conformance with the relevant recommendations set out in <i>The Provision and Quality of Drinking Water in Ireland –A Report for the Years 2006-2007</i> (Office of Environment Enforcement- EPA, 2007) shall be achieved.</p>	Integrated through Policy P-WS-5.
<p><i>Drinking Water II</i></p> <p>Existing and new populations under the Plan shall be served with clean and wholesome drinking water.</p>	Integrated through Policy P-WS-1.
<p><i>Drinking Water III</i></p> <p>Compliance shall be achieved with the 48 parameters set out under the European Communities (Drinking Water) Regulations (No. 2) 2007.</p>	Integrated through Policy P-WS-4.
<p><i>Drinking Water IV</i></p> <p>Any outstanding issues - including the identified inadequate treatment for cryptosporidium at the Kilsellagh Treatment Plant - which would allow the removal of public water supplies from the EPA remedial action list of public water supplies shall be resolved.</p>	Integrated through Objective O-WS-4.
<p><i>Drinking Water V</i></p> <p>Ensure the adequacy of the existing water supply in terms of both quality and quantity and the potential risk to human health.</p>	Integrated through Policy P-WS-6.
<p><i>Drinking Water VI</i></p> <p>Prepare a Groundwater Protection Scheme which includes the groundwater bodies within the zone of influence of the Town and Environs Plan area.</p>	Integrated through Policy P-WQ-3.
<p><i>Drinking Water VII</i></p> <p>Seek funding for the preparation of a Water Conservation Plan for the Sligo and Environs area.</p>	Integrated through Objective O-WS-5.

Mitigation measure	Integration into Plan
<p><i>Flooding and Climatic Factors I</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 Plan shall require new developments to comply with these measures.</p>	Integrated through Policies P-FP-1 to P-FP-4.
<p><i>Flooding and Climatic Factors II</i></p> <p>Where possible, the landward migration of the coastal features of the Plan area - such as intertidal flats and marshes - shall be facilitated as these features form an integral part of the coastal system - both physically and ecologically.</p>	Integrated through Policy P-FP-5.
<p><i>Flooding and Climatic Factors III</i></p> <p>Landuses shall not give rise to increases in the run-off characteristics above those that currently exist.</p>	Integrated through Policy P-FP-6.
<p><i>Flooding and Climatic Factors IV</i></p> <p>Where relevant, new developments shall be required to integrate adequate and appropriate Sustainable Urban Drainage Systems (SUDS).</p>	Integrated through Policy P-FP-7.
<p><i>Flooding and Climatic Factors V</i></p> <p>Development in areas at risk of flooding, particularly floodplains, shall be avoided by not permitting development in flood risk areas unless where it is fully justified that there are wider sustainability grounds for appropriate development and unless the flood risk can be managed to an acceptable level without increasing flood risk elsewhere and where possible, reducing flood risk overall.</p>	Integrated through Policy P-FP-8.
<p><i>Flooding and Climatic Factors VI</i></p> <p>A sequential approach to flood risk management based on avoidance, reduction and then mitigation of flood risk as the overall framework for assessing the location of new development in the development planning processes shall be adopted.</p>	Integrated through Policy P-FP-9.
<p><i>Flooding and Climatic Factors VII</i></p> <p>Flood risk assessment shall be incorporated into the process of making decisions on planning applications and planning appeals - flood risk assessments to accompany planning applications where relevant.</p>	Integrated through Policy P-FP-10.
<p><i>Soil and Contamination I</i></p> <p>Ensure that, where relevant, and, in particular, in the Docklands area, adequate and appropriate investigations are carried out into the nature and extent of any soil and groundwater contamination and the risks associated with site development work, where brownfield development is proposed.</p>	Integrated through Policy P-WM-13.
<p><i>Cultural 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>	Integrated through Policy P-AH-11.

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	Integration into Plan
<p><i>Cultural Heritage II</i></p> <p>The context, amenity and integrity of archaeological heritage and the landscape at Carns Hill [including the direct intervisibility between cairns on Carns Hill, the direct views between Carns Hill and Knocknarea and Carrowmore and the direct views between Carns Hill and other relevant locations within the wider Cuil Irra passage tombs complex] shall be protected.</p>	<p>Integrated through Policy P-AH-15.</p>
<p><i>Cultural Heritage III</i></p> <p>Pre-development archaeological testing, surveying, monitoring and recording shall be carried out where appropriate.</p>	<p>Integrated through Policy P-AH-2.</p>
<p><i>Cultural Heritage IV</i></p> <p>In order to protect, strengthen and improve the presentation and the general character of Sligo and Environs, alterations and interventions to Protected Structures shall be executed to a high conservation standards, and shall not detract from their significance or value.</p>	<p>Integrated through Section 16.2.6 RPS/ACAs in Development Standards Chapter.</p>
<p><i>Cultural Heritage V</i></p> <p>Planning applications for developments in sensitive areas shall be accompanied by an assessment undertaken by an RIAI-accredited architect or practice (or foreign equivalent for non-Irish architects or practices), where appropriate, detailing the impacts of the proposed development upon the special interest and character of the surrounding architectural heritage. The relevant Planning Authority 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>Integrated through Section 16.2.6 RPS/ACAs in Development Standards Chapter.</p>
<p><i>Cultural Heritage VI</i></p> <p>The Record of Protected Structures shall be extended on a phased basis, as appropriate, in order to incorporate recommendations from the National Inventory of Architectural Heritage.</p>	<p>Integrated through Objective O-BH-1.</p>
<p><i>Landscape I</i></p> <p>Promote linkages between established landmarks and landscape features and views, including recognition of these elements when zoning land and when considering individual development proposals.</p>	<p>Considered during preparation of land use zoning map.</p>
<p><i>Landscape II</i></p> <p>An appropriate visual impact assessment shall be prepared for any proposed development with potential to significantly impact adversely on the landscape character of the Plan area and adjoining lands using agreed and appropriate viewing points and methods for the assessment.</p>	<p>Integrated through Policy P-H-25.</p>
<p><i>Waste Management I</i></p> <p>An integrated approach to waste management for proposed developments - to include wastes generated during the construction phase of development and the operation and maintenance phases - shall be implemented, having particular regard to Best Practice Guidelines on the preparation of Waste Management Plan for Construction and Demolition Projects July 2006.</p>	<p>Integrated through Policies P-WM-13 and P-WM-14.</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 Submissions

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 the Councils.

SEA scoping submissions were made by both the EPA and the DEHLG. These submissions were taken into account during the formulation of the scope of the SEA and while undertaking the SEA.

The EPA's submission consisted of an *SEA Pack* which comprised a combination of Guidance, Checklists and Abstracts from EPA Publications and a Circular Letter issued by the Department of the Environment Heritage and Local Government on Appropriate Assessment of Land Use Plans. Key topics covered include:

- Drinking Water;
- Urban Waste Water Discharges;
- Wetlands Conservation and Protection; and,
- Appropriate Assessment.

In addition, the EPA submitted an *SEA Scoping - Generic SEA Process Issues* document which provided information under the following headings:

- EU and national environmental legislation, objectives, policies
- Inter-relationships with other relevant Plans and Programmes
- Existing Environment
- Up-to-date Environmental Monitoring Data etc.
- State of the Environment Report

- WFD- Data / Reports
- EPA ENVision/ GIS
- Environmental Data Gaps
- Habitats Directive Article 6(3) Appropriate Assessment
- Scoping In/Out aspects of the Environment
- SEA Scoping Workshops
- Alternatives
- Consultation
- Assessment of Likely significant effects
- Mitigation of significant effects
- Monitoring
- SEA Process and SEA-Environmental Report Compliance
- Integration of SEA and Plan/Programme
- Documentation of the SEA Process
- Information on the Decision
- SEA Guidance /Methodology

The DEHLG made three submissions which dealt with topics including the following:

- Archaeological Heritage
 - Archaeological heritage legislation and international strategic actions to which the SEA must have regard;
 - Development issues with regard to archaeological heritage; and,
 - Liaison with the National Monuments Section on drafting the archaeological content of the Plan.

Architectural Heritage

- How to define architectural heritage;
- The level of detail at which architectural heritage should be considered;
- Data gaps with regard to architectural heritage;
- Scoping of Baseline information to be included in the Environmental Report;
- How to deal with the 'do-nothing' scenario; and,
- Monitoring and Cumulative Effects.

3.3 Submissions and Observations

The EPA made a submission on the Development Plan and Environmental Report while it was on public display. This submission resulted in the updating of a number of parts of the Environmental Report.

The submission provided information and advice under the following headings:

- Key Recommendations
- Sustainable Policies and Objectives and Sustainable Development
- Water Framework Directive
- Groundwater Protection
- Drinking Water
- Water Conservation
- Zoning and Water Supply
- Bathing Water
- Waste Water Treatment
- Flood Prevention
- Inland Waters
- Buffer Zones
- Wetlands
- Appropriate Assessment
- EU Protected Habitats and Species in Ireland
- Fisheries
- Shellfish Growing Areas
- Invasive Species
- Non-Designated Habitats and Species
- Plan Policies
- Landscape
- Quality of Life
- Transportation
- Air and Climatic Factors
- Renewable Energy
- National Hazardous Waste Management Plan
- Brownfield Development
- Former Waste Disposal Sites
- SEA and Infrastructure Planning
- Legislative Obligations
- Ireland's Environment 2008
- Environmental Report
- Consultation
- Non-Technical Summary
- Zone of Influence
- Relationship to other Plans
- Assessment of Environmental Effects

This submission resulted in updating a number of sections in the Environmental Report as follows:

- Insertion of new Section 4.6.3 *Noise* which includes information on Noise and the Noise Directive (Directive 2002/49/EC relating to the assessment and management of environmental noise);
- Statement in Section 1.1 *Introduction and Terms of Reference* that the SEA is the responsibility of the two Councils;
- Insertion of new Section 4.2.2 *Lough Gill Catchment Management Plan* including information on the Lough Gill Catchment Management Plan;
- Inclusion of information on fluctuations in population and potential effects as a result of these fluctuations in Section 3.3 *Population* and Section 3.7 *Material Assets*;
- Inclusion of Section 4.5.3.2 *EU Flood Directive* which includes information on the EU Floods Directive (European Directive 2007/60/EC on the assessment and management of flood risks);
- Inclusion of habitat mapping and accompanying description in Section 3.2 *Sligo and Environs' Baseline Environment*;
- Inclusion of progress note on the completion of a wetlands survey for the area in Section 3.2 *Sligo and Environs' Baseline Environment*; and,
- Inclusion of an additional indicator and target for drinking water quality.

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 Sligo and its Environs.

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 February 2009.

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 4 Alternatives and the Plan

4.1 Introduction

This section summarises the alternative scenarios for the 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 the Scenarios

4.2.1 Alternative Scenario 1: *Doughnut City*

Scenario 1 (see Figure 4.1) is based upon development occurring in a doughnut-shaped pattern, adjoining the existing development limit on its outside. Already zoned lands that surround the existing built-up area of Sligo Town would remain largely undeveloped under this scenario. The availability of newer, more affordable residential development in a rural setting - which seems to be preferred by many Sligo Town and County residents - would lead to the hollowing-out of the Town. The scenario is strongly informed by the land zoning requests received in submissions made at the pre-draft stage of the Sligo and Environs Development Plan review process. These submissions, coming mainly from landowners, request residential and/or mixed -use zoning. The summary of environmental effects of implementing this scenario - which is led by market demand - (see Section 4.3) provides a broad summary of the likely evolution of the environment without implementation of the Plan.

4.2.2 Alternative Scenario 2: *Horseshoe City*

The practical experience of planners in Sligo Local Authorities indicates that, if development were not controlled, there would be a preference for low-density residential development outside Sligo and Environs. This is particularly the case for areas located to the west and north-west of the Town along the Strandhill Road and Rosses Point Road

(including Ballincar), where a notable amount of ribbon development has occurred. The demand for housing in these areas is based on the convenient location between the Town and the seaside settlements of Strandhill and Rosses Point. It appears that views of Sligo Bay, Knocknarea, Benbulbin, and also the attraction of living close to the water and not far from town make these locations highly desirable in residential terms. The Horseshoe City scenario (see Figure 4.2) is based on the intensification of existing uses and further development along the regional roads around Sligo Bay.

4.2.3 Alternative Scenario 3 *Compact City*

Scenario 3 (see Figure 4.3) is based upon achieving a balance between the consolidation / regeneration of the existing built-up area and the planned expansion of the City into the Environs. The scenario identifies five areas:

- Two areas - Sligo Docklands and Cranmore-Cleveragh - would be subject to comprehensive consolidation / regeneration.
- Teesan-Lisnalgur (the "North Fringe" area) and the south-western quadrant at Caltragh-Carrowroe are identified for the planned expansion of the City.
- To the east of the City, the Hazelwood-Ballinode area, for which a Local Area Plan is already in place, would be subject to a combination of consolidation (at Ballinode) and planned expansion to the east.

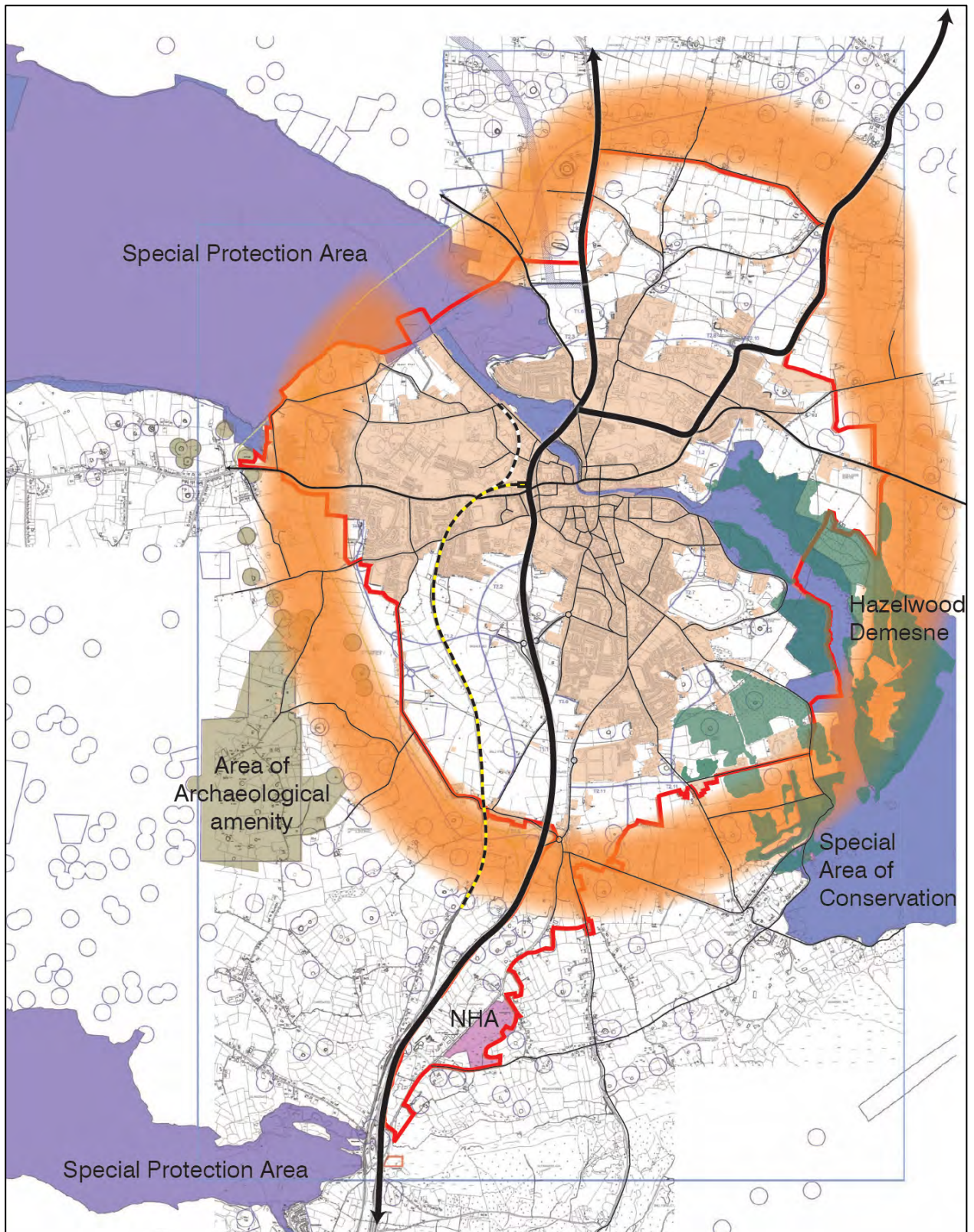


Figure 4.1 Alternative Scenario 1: Doughnut City

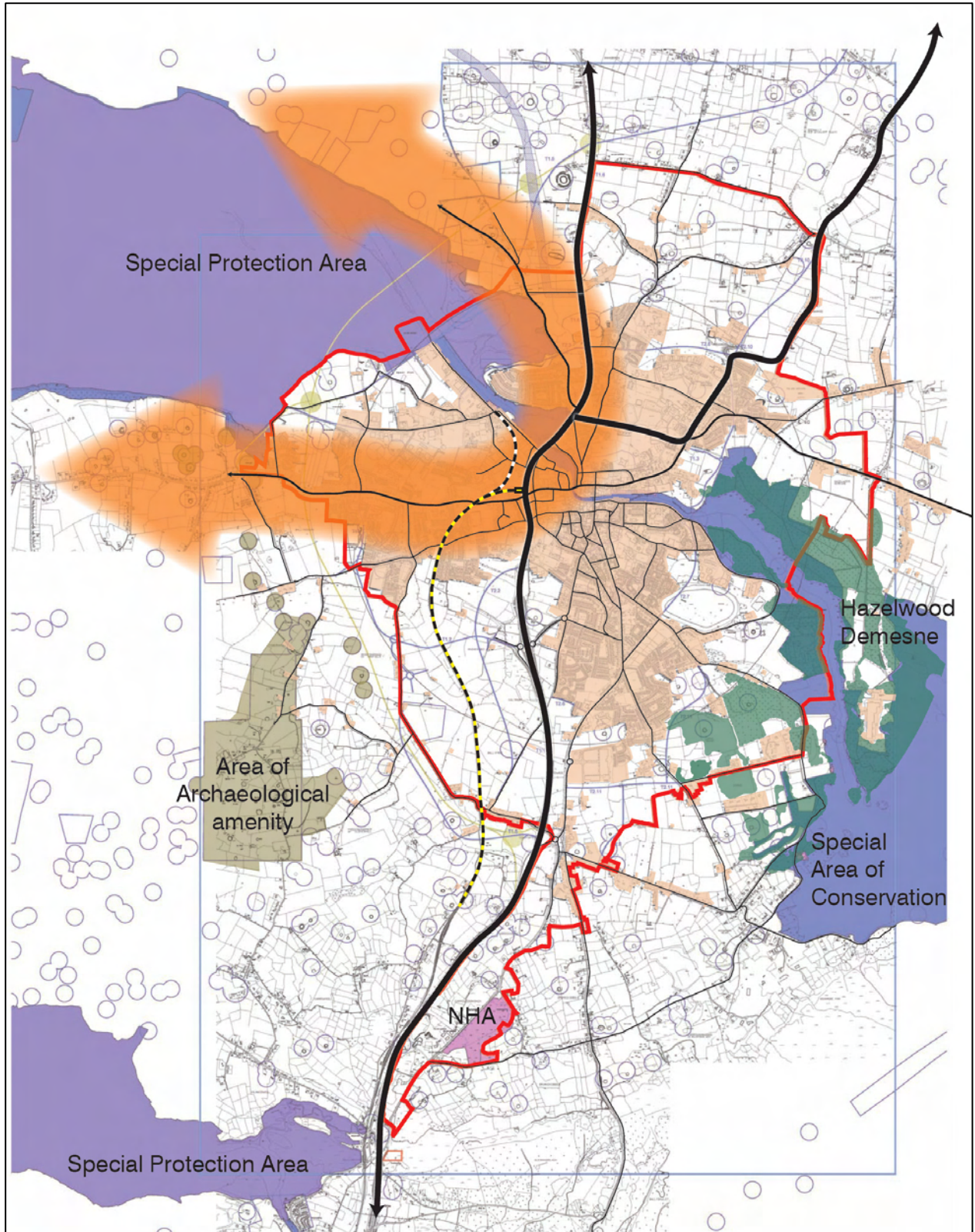


Figure 4.2 Alternative Scenario 2: Horseshoe City

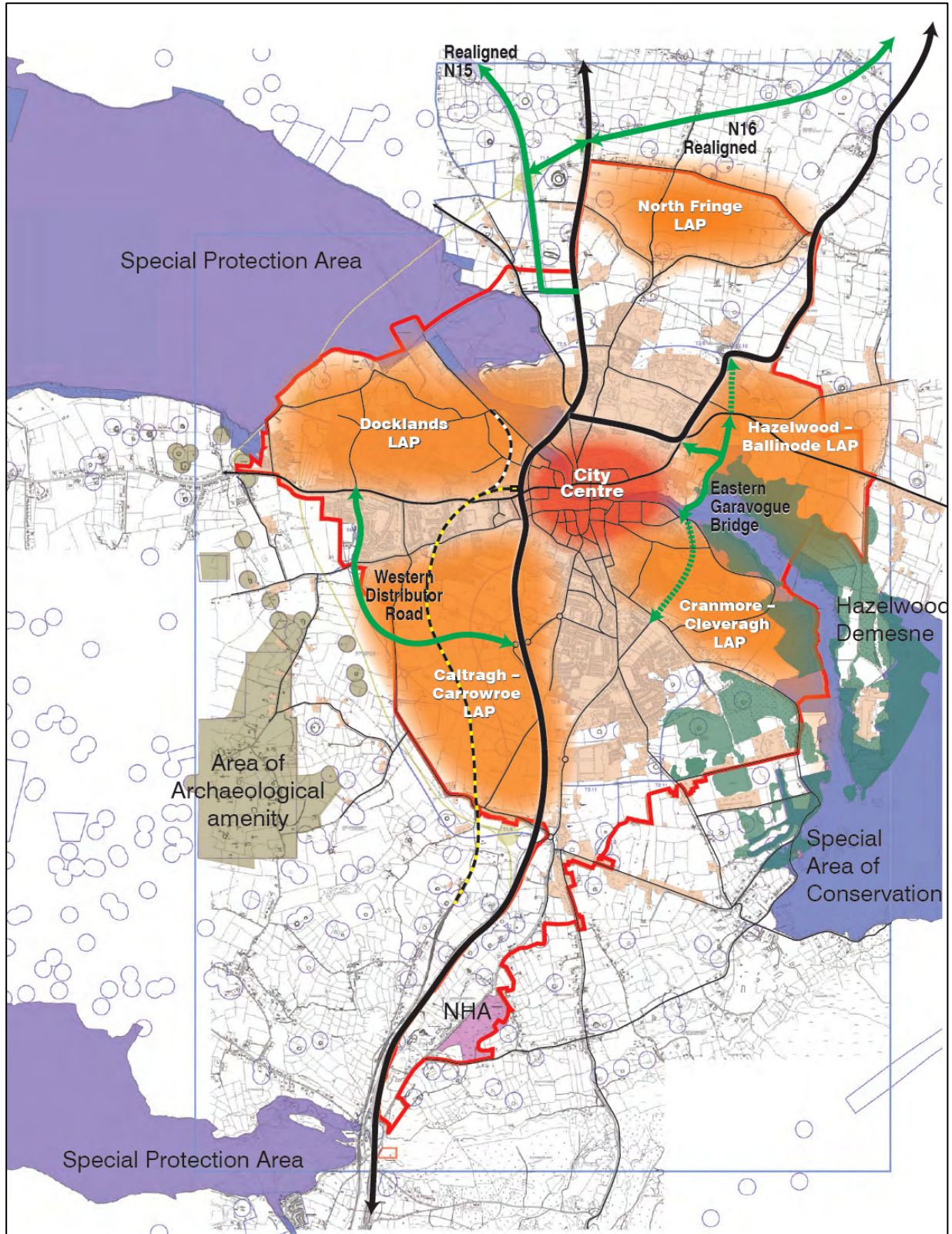


Figure 4.3 Alternative Scenario 3: Compact City

4.3 Summary of the Evaluation of Environmental Effects of the Alternative Scenarios

Alternative Scenario	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
Alternative Scenario 1 <i>Doughnut City</i>	<ul style="list-style-type: none"> • Architectural Heritage - short term by reducing development in the town centre 	<ul style="list-style-type: none"> • Ecological Connectivity and Non- Designated Ecology - due to greenfield development • Brownfield development - not maximised • Flooding - because of extent of greenfield development • The Landscape - due to impacts in identified landscape sensitivity areas to the east and south of the town • Archaeological Heritage - due to infringements upon monuments and obstruction of visibility between monuments and between monuments and Knocknarea and Carrowmore • Waste Water Treatment, Water Quality & Human Health - due to development on unserviced lands. • Greenhouse Gas Emissions & Car dependency - low densities over wider areas of land would result in public transport being unviable • Architectural Heritage - long term due to lack of regeneration and resultant urban decay 	<ul style="list-style-type: none"> • Designated Ecology - potential impacts arising from transport development would have to be mitigated
Alternative Scenario 2 <i>Horseshoe City</i>	<ul style="list-style-type: none"> • Architectural Heritage - short term by reducing development in the town centre 	<ul style="list-style-type: none"> • Designed Ecology and Ecological Connectivity - because of extent of development which would be provided along lands adjacent to Cummeen Strand/Drumcliff Bay SPA, SAC and pNHA • Brownfield development - not maximised • The Landscape - providing for significant additional ribbon development along lands adjacent to the Bay • Greenhouse Gas Emissions & Car dependency- low densities would result in public transport being unviable • Architectural Heritage - long term due to lack of regeneration and resultant urban decay • Flooding - because of extent of greenfield development adjacent to the Bay 	<ul style="list-style-type: none"> • Designated Ecology - potential impacts arising from transport development would have to be mitigated • Waste Water Treatment, Water Quality & Human Health - <i>generally</i> infrastructure exists or is proposed to be provided to serve the area under this scenario • Archaeological Heritage - arising from individual projects • Human health - this scenario would enable greenfield development to occur in designated safety zones thereby hindering the protection of flight paths

Alternative Scenario	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
Alternative Scenario 3 <i>Compact City</i>	<ul style="list-style-type: none"> • Architectural Heritage - long term protection arising from regeneration of certain areas and encouragement of brownfield development • Brownfield development - this scenario provides for regeneration and consideration • Greenhouse Gas Emissions & Car dependency - a compact Town and Environs would help to minimise increases in emissions and make public transport more economically viable • Ecological Connectivity and Non- Designated Ecology - outside of the existing development envelope • Provision of appropriate levels of waste water treatment - due to compact nature of development 		<ul style="list-style-type: none"> • Designated Ecology - due to projects involved in and contaminants potentially arising from regeneration of the docklands • Designated Ecology - potential impacts arising from transport development would have to be mitigated • Human Health - due to: contaminants potentially arising from regeneration of the docklands; and, potential odours and dust. • The Landscape - due to projects involved in the regeneration of the docklands & Hazelwood/Ballinode • Water Quality - due to contaminants potentially arising from regeneration of the docklands • Archaeological Heritage • Architectural Heritage - arising from brownfield developments / regeneration projects within the Town and Environs • Ecological Connectivity and Non-Designated Ecology - arising from projects within the existing development envelope • Flooding - as a result of greenfield development

The likely significant environmental effects⁶ of implementing Scenario 3 summarised above and elaborated on in the Environmental Report fully reflect the likely significant effects of implementing the Development Plan including the land use zoning included in the Plan. The environmental effects of implementing the policies and objectives required to achieve Scenario 3 are presented in Section 8 in the Environmental Report.

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

Having regard to the evaluation summarised above and elaborated on in the Environmental Report, the alternative scenario with the least number and extent of potential environmental effects is Alternative Scenario 3 *Compact City*.

With the integration of appropriate mitigation measures (including those identified in both Section 9 of the Environmental Report and in Section 2.4 of this report) potential adverse environmental effects which could arise as a result of implementing the Plan would be likely to be avoided, reduced or offset.

⁶ Including secondary, cumulative, synergistic, short, medium and long-term permanent and temporary, positive and negative effects.

Scenario 3 *Compact City* was chosen to be developed for the Draft Development Plan by the plan-making team having regard to both the environmental effects which were identified by the Strategic Environmental Assessment and planning - including social and economic - 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 environmental effects of the Development Plan which are detailed in this section.

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 Plan is achieving its environmental objectives and targets - measures which the Plan 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 Plan 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 Sligo Borough and County Councils 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 Sligo Borough and County Councils 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 effects - 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 A1i (Percentage of population within the plan area travelling to work or school by public transport or non-mechanical means) and A1ii (Average distance travelled to work or school by the population of the Plan area) 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 Plan will be prepared to coincide with the Manager's report to the elected members on the progress achieved in securing Plan 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

Sligo Borough and County Councils are 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 include the following:

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

Table 5.1 Selected Indicators, Targets and Monitoring Sources

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 Plan</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 Plan</p> <p>B3: Percentage loss of connectivity between areas of local biodiversity as a result of implementation of the Plan – as evidenced from a resurvey of 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 Plan</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 Plan</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 Plan</p>	<p>CORINE Mapping, DEHLG Records & Development Management Process in Sligo Borough and County Councils</p> <p>Development Management Process in Sligo Borough and County Councils & Consultation with the National Parks and Wildlife Service</p> <p>CORINE mapping and possibly new habitat mapping for the Town and Environs</p>
Population and Human Health	<p>HH1: Occurrence (any) of a spatially concentrated deterioration in human health</p> <p>HH1ii: Number of non-compliances with the 48 parameters identified in the European Communities (Drinking Water) Regulations (No. 2) 2007 which present a potential danger to human health</p>	<p>HH1: No spatial concentrations of health problems arising from environmental factors</p> <p>HH1ii: No non-compliances with the 48 parameters identified in the European Communities (Drinking Water) Regulations (No. 2) 2007 which present a potential danger to human health</p>	<p>Sligo Borough and County Councils, EPA, Health and Safety Authority</p> <p>EPA and Sligo Borough and County Councils</p>
Soil	S1: Area of brownfield land developed over the 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 Plan) at the end of the Plan's lifespan	Development Management Process in Sligo Borough and County Councils

Environmental Component	Selected Indicator(s)	Selected Target(s)	Sources
Water	<p>W1i: Biotic Quality Rating (Q Value)</p> <p>W1ii: EPA Trophic Status of Lakes</p> <p>W2: Trophic Status (ATSEBI)</p> <p>W3: Groundwater Quality Standards and Threshold Values under Directive 2006/118/EC</p> <p>W4: Mandatory and Guide values as set by Directive (76/160/EEC)</p> <p>W5: Number of developments granted permission on lands which pose - or are likely to pose in the future - a significant flood risk</p>	<p>W1ia: 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>W1ib: To improve biotic quality ratings, where possible, to Q5</p> <p>W1iia: To achieve a minimum trophic status of mesotrophic, in line with the requirement to achieve good water status under the Water Framework Directive, by 2015</p> <p>W1iib: To improve trophic status, where possible, to oligotrophic</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: To achieve - as a minimum - Mandatory values, and where possible to achieve Guide values as set by Directive (76/160/EEC)</p> <p>W5: Minimise developments granted permission on lands which pose - or are likely to pose in the future - a significant flood risk</p>	<p>Environmental Protection Agency</p> <p>Environmental Protection Agency</p> <p>Environmental Protection Agency</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>Environmental Protection Agency</p> <p>Development Management Process in Sligo Borough and County Councils</p>

Environmental Component	Selected Indicator(s)	Selected Target(s)	Sources
Air and Climatic Factors	<p>A1i: Percentage of population within the Plan area travelling to work or school by public transport or non-mechanical means</p> <p>A1ii: Average distance travelled to work or school by the population of the Plan area</p>	<p>A1i: An increase in the percentage of the population travelling to work or school by public transport or non-mechanical means</p> <p>A1ii: A decrease in the average distance travelled to work or school by the population of the Plan area</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>
Material Assets	<p>M1: Number of new developments granted permission which cannot be adequately served by a public waste water treatment plant over the lifetime of the Plan</p>	<p>M1: No new developments granted permission which cannot be adequately served by a public waste water treatment plant over the lifetime of the Plan</p>	<p>Development Management Process in Sligo Borough and County Councils</p>
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</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 Sligo Borough and County Councils</p> <p>Development Management Process in Sligo Borough and County Councils</p>

Environmental Component	Selected Indicator(s)	Selected Target(s)	Sources
Landscape	L1: Number of complaints received from statutory consultees regarding avoidable impacts resulting from development which is granted permission under the Plan	L1: No developments permitted which result in avoidable impacts on the Town and Environs' sensitive landscapes	Development Management Process in Sligo Borough and County Councils