

Environmental Statement

Drogheda Borough Council Development Plan 2011-2017



March 2011

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Section 1 – Introduction

1.1: Introduction

This is the Environmental Statement for the Drogheda Borough Council Development Plan 2011-2017 and forms the final part of the requirements for the Strategic Environmental Assessment (SEA) of the Plan. The Drogheda Borough Council Development Plan is the new statutory plan for the town of Drogheda for the period 2011-2017.

The plan has two main purposes, firstly to provide a framework of acceptable uses within the plan area, defining acceptable forms of development and where it should be directed and secondly to provide a detailed basis for the promotion and control of development.

The Development Plan establishes a framework for the future development of the area as a strong and energetic community, with a beautiful, clean environment, a rich and varied heritage and a vibrant and diverse social, cultural and economic life. The Development Plan seeks to realise this vision both directly in its role as planning, housing, sanitary and roads authority and indirectly by facilitating and promoting the social, economic and cultural development of the plan area.

The final output from the SEA process is an Environmental Report which will include baseline information and a prediction of the environmental impacts of the development plan. The Environmental Report also identifies options and alternatives to policy and objectives. Along with dealing with the likely environmental effects, reasonable alternatives and reasonable current data on matters relating to the plan

SEA is mandatory for the Development Plan review under the Planning and Development (SEA) Regulations, 2004 and is being carried out as a parallel process to the two-year Development Plan review process. SEA runs in parallel to that of formulating the Development Plan and the same opportunities for comment afforded to the public through the Development Plan process are available for the SEA process.

The purpose of SEA is:

- To provide an environmentally sound framework for guiding the making of development plan policies at an early stage.
- To integrate environmental considerations into the preparation and adoption of plans.
- To improve the environmental sustainability of the new Plan.
- To raise awareness of the potential environmental consequences of its implementation so that these consequences may be mitigated or avoided altogether.
- To increase public participation in environmental decision making.

SEA can be defined as: the formalised, systematic and comprehensive process of evaluating the environmental impacts of a policy, plan or programme and its

alternatives, including the preparation of a written report on the findings of the evaluation, and using the findings in publicly accountable decision making.

1.2: SEA Legislative Background

The statutory requirements underpinning the production of an SEA for the Drogheda Borough Council Development Plan 2011-2017 are derived from, in the first instance, Directive 2001/42/EC of the European Parliament and of the Council on the Assessment of the Effects of certain Plans and Programmes on the Environment (June 2001), otherwise known as “the SEA Directive”. This directive is affected at national level by the Planning and Development (Strategic Environmental Assessment) Regulations 2004, Statutory Instrument Number 436 of 2004.

In summary, the EU Directive states that

“Environmental assessment is an important tool for integrating environmental considerations into the preparation and adoption of certain plans and programmes which are likely to have significant effects on the environment in the Member States, because it ensures that such effects of implementing plans and programmes are taken into account during their preparation and before their adoption.”

Hence the likely impacts upon the environment of implementing some or all elements of the Drogheda Borough Council Development Plan 2011-2017 must be carefully assessed in parallel with the preparation of the plan in order that these impacts can be mitigated.

Mandatory Content of SEA (Annex 1; 2001/42/EC)

The information to be provided under the SEA Directive (Article 5(1), subject to Article 5(2) and (3)) includes those elements detailed in Annex 1 of the legislation (Annex 1; 2001/42/EC). Within this descriptive list of the mandatory content of an SEA is contained a number of key environmental indicators which must be examined both as part of the scoping study but more importantly as key elements of the entire SEA process. These include;

- Biodiversity, Fauna and Flora,
- Population and Human Health
- Soil,
- Water,
- Air and climatic factors,
- Material assets,
- Cultural heritage, Architectural and Archaeological heritage
- Landscape.

1.3 Environmental Report/ Statement

The above legislation requires certain plans and programmes which are prepared by the council to undergo SEA. The findings of the SEA were expressed in the Environmental Report which was submitted to the Elected Members alongside the Draft Drogheda Borough Council Development Plan 2011-2017. The Elected Members took this report into account during the draft plan and proposed material amendments included further environmental considerations.

This Environmental Statement is required to summarise, inter alia: how environmental considerations have been integrated into the Plan; and, the reasons for choosing the Plan as adopted over other alternatives detailed in the Environmental Report.

Section 2: Development Plan, Environmental Considerations and Consultation.

2.1: Environmental Considerations during the Plan Preparation.

2.1.1: Introduction

Environmental considerations have been integrated into the plan from the early stages of its plan preparation, particularly through the Environmental Report and throughout the process. During the various stages of Plan preparation, where it was demonstrated that conflict with environmental objectives arose, measures were proposed which sought to mitigate against any potential negative environmental effects. This has occurred throughout the preparation of the Draft Plan, the Amendments and their accompanying Environmental Reports. Conclusions were incorporated into the Manager's Reports to inform the member's decision making on the plan. A number of distinct stages of the process during which environmental issues have been incorporated and the SEA methodology applied are outlined below: The key stages of the SEA process are:

1. **Screening** of Plans to determine if an SEA is required. Determination on the need for an SEA.
2. **Scoping** the range and content of the SEA. Identification of issues and level of detail which the environmental report should address.
3. **Environmental Report** preparation including identification, prediction, evaluation and mitigation of potential impacts (Draft Plan Stage).
4. **Consultation**, revision and post plan adoption activities (following assessment of consultation responses).

2.1.2 Screening

It is clear from a review of the available material that an SEA is required for the Drogheda Borough Council Development Plan 2011-2017. In particular it should be noted that the Directive states an environmental assessment shall be carried out for all plans and programmes;

"...which are prepared for agriculture, forestry, fisheries, energy, industry, transport, waste management, water management, telecommunications, tourism, town and

country planning or land use and which set the framework for future development consent of projects listed in Annexes I and II to Directive 85/337/EEC"

Directive 85/337/EEC, Annexes I and II list a wide range of built projects, the majority of which are subject to control under the Planning and Development Act 2000. In addition to this, the directive notes that for the purposes of definition: "*plans and programmes*" shall mean plans and programmes, including those co-financed by the European Community, as well as any modifications to them:

- Which are subject to preparation and/or adoption by an authority at national, regional or local level or which are prepared by an authority for adoption, through a legislative procedure by Parliament or Government, and
- Which are required by legislative, regulatory or administrative provisions

As a statutory requirement under the Planning and Development Act 2000, Drogheda Borough Council Development Plan clearly falls within this definition of "*Plans and Programmes*" within the directive. As such, screening of the plans was not required and the process started with a scoping report.

2.1.3 Scoping Report

This Scoping Report formed a key part of the SEA process and enabled formulation of the draft Drogheda Borough Council Development Plan 2011-2017. The purpose of the Scoping Report was to ascertain significant environmental issues which should be taken into consideration in the making of the new plan and input into the environmental report. This ensured that there was full awareness of environmental issues and appropriate responses to environmental concerns to be enshrined in the plan making process.

Thus the Scoping Report will ensure that:

1. *The relevant environmental issues are identified so that they can be given proper consideration in the Environmental Report,*
2. *Consultation is undertaken with the three statutory bodies (the Environmental Protection Agency, the Department of the Environmental, Heritage and Local Government and the Department of Communications, Marine and Natural Resources) and other interested parties.*

The findings and comments received as part of the scoping exercise will inform the preparation of the Environmental Report which will be made available for comment from the public and interested parties at the same time as the Development Plan.

2.1.4 Environmental Report

The above legislation requires certain plans and programmes which are prepared by the Council to undergo SEA. The findings of the SEA are expressed in an Environmental Report which is submitted to the Elected Members alongside the Drogheda Borough Council Development Plan.

When the Plan is adopted a statement must be made public, summarising, inter alia: how environmental considerations have been integrated into the Plan; and, the reasons for choosing the Plan as adopted over other alternatives detailed in the Environmental Report.

2.2 Consultation

This section details how both the Environmental Reports and submissions and observations made to the Planning Authority on the Environmental Reports and SEA process have been taken into account during the preparation of the plan. In particular, the County Manager's Reports on the Development Plan under Section 12(4) and 12(8) required under the Planning and Development Act 2000 and prepared after the formal public display periods demonstrate how particular submissions/consultations were considered. The general manner in which submissions were taken into account is outlined below.

2.2.1 Consultation on the Issues Paper for the Drogheda Borough Development Plan 2011-2017

Minister for Communications, Energy and Natural Resources.

A submission was received on the 12th August 2009 it stated that they have no comment to make at this time.

Minister for the Environment, Heritage and Local Government

A submission was received on the 30th July 2009 no comment was made.

Eastern Regional Fisheries Board

A submission was received in August 2009 it states

- Capacity must be provided at Drogheda Wastewater Treatment Plant before development is granted.
- Existing Ecological Corridors are to be protected.
- Recommended the use of SUDS
- Conserve and protect the natural habitats and water quality in River Systems within Borough area.

2.2.2 Consultation on the Scoping Report for SEA for Drogheda Borough Development Plan 2001- 2017

Scoping Report for Draft Drogheda Development Plan 2011- 2017.

Eastern Regional Fisheries Board

Submission received on the 29th of January 2010 are in broad agreement with the contents of the scoping report.

Minister for Communications, Energy and Natural Resources.

Submission received on the 01st of February 2010 had no observations on the contents of the scoping report.

Environmental Protection Agency

Submission received on the 26th of January 2010 has stated the following:

1. The proposed plan does have the potential to have a significant impact on the following

Biodiversity

- Appropriate Assessment recommended for Special Areas of Conservation and Special Protection Areas.
- Boyne Coast and Estuary
- Laytown Dunnes/ Nanny Estuary
- River Nanny Estuary and Shore
- River Boyne and River Blackwater

Waste Water Treatment

- Discharges to designated sensitive areas from Drogheda WWTP

Drinking Water

- Management and reduction of future needs
- Water conservation

Water quality – Water Framework Directive

Transitional riskscores:

- Boyne Estuary: 1a = at risk of not achieving good status by 2015.
- Coastal riskscore:
- Boyne Estuary Plume Zone: 1a = at risk of not achieving good status by 2015
- Lough Coast: 2b = Strongly expected to achieve good status by 2015

Groundwater riskscore:

- Drogheda Plan Area: 1b = probably at risk of not achieving good status by 2015
- Completion of groundwater protection scheme

Fisheries

Shellfish Growing Waters

Flood Prevention

Requirement for Flood Risk Assessments for proposed development / zoning.

Air and Climatic Factors

- Decrease in Levels of PM10 not experienced in 2008 in recent EPA Report in Air
- Quality in Ireland 2008 (EPA, 2009) for this parameter due to wider sources for PM10 including emissions from residential fuel use, industry and agriculture.
- Development and promotion of sustainable transport modes
- Provision and promotion of energy efficient homes and businesses.
- Promotion of renewable energy systems in the Plan area.

Additional Relevant Plans / Programmes

- The draft Regional Planning Guidelines for the Greater Dublin Area (2010-2022)

Updated Reports / Publications

- The following updated reports which should be referenced within the Plan, and the recommendations of which should be implemented as appropriate.

- Requirement, where appropriate under the SEA Regulations, to give notice to the following:
- Department of the Environment, Heritage & Local Government
- Minister for Communications, Energy and Natural Resource (formerly Communications, Marine and Natural Resource),

Minister for Environment, Heritage and Local Government.

Submission received on the 2nd of February 2010 with regard to the scoping report for the draft Development Plan. The submission relates to three aspects of the Environmental Report namely Archaeology, Architectural and Nature Conservation and may be summarised as follows:

1: Archaeological Comments

- National plans and policies to be taken into consideration
- Inclusion of archaeological information in all plans
- Inclusion of National Monuments and zones of visual amenity defined for them.
- Any potential impacts on archaeological heritage should be subject to full archaeological assessment.

2. Architectural Heritage Comments.

- Definition of architectural heritage
- Need to consolidate the built form of Drogheda to reinforce sense of place
- Expansion of references to built and cultural heritage other than just the RPS structures
- SEA should reference the context of the built and cultural heritage to ensure new development frameworks are to be correctly expanded.
- Environmental Objectives CH 1 and CH3 to include architectural heritage
- Place and identity should also be reflected in the SEA
- Level of detail and data gaps, and recommended the baseline data that should be used for the environmental report as per survey work, National inventory, local interest group work etc, Environmental baseline does not require major new research.
- Monitoring effects, Draft Drogheda plan should set standards for the quality of design of new structures in line with Government Policy on Architecture 2009-2015.

3. Nature Conservation Comments.

- It is recommended that the Strategic Environmental Objectives include habitats both within the designated areas and beyond,
- Need linear features and stepping stones for biodiversity in land use plans
- SEOs should be compatible with relevant River Basin Management Plans.
- NPWS baseline data should be used for Environmental study
- Appropriate assessment screening is required and the cumulative effects on other towns is required.
- Information on the Natura 2000 sites and their conservation objectives is required.
- Issues relating to the Appropriate Assessment include:
 - Where is the water coming from and what impact is there on Natura sites
 - Where is the waste water going to, does it comply with WFD and River Basin

management plan etc

- Will any extra population have and impact on the Natura 2000 site, visiting, proposed works/ walkways etc
- Is there any other reference to National/ County strategies which could impact on the Natura 200 site.
- Are proposed zonings compatible with the protection of Natura 2000 sites.

Minister for Communications, Energy and Natural Resources

A submission was received on the 25th May 2010 in relation to the draft Plan the Department stated that it has no comments/ observations to make at this time.

2.2.3 Consultation on the draft Drogheda Borough Development Plan 2011-2017

Environmental Protection Agency

The EPA's submission included the following comments:

Chapter 1

- Reference should be made to the following draft Regional Planning Guidelines 2010-2020 (draft RPG's) and Appropriate Assessment of Plans and Projects in Ireland Guidance for Planning Authorities, Pollution Reduction Programme for Shellfish Waters for the Louth –Fingal Region.
- Inclusion of strategic objective to assess land use in relation to flood risk assessment & environmental vulnerabilities.

Chapter 2

- AA and EIA is required for Character Area plans.
- Population estimates should not conflict with draft RPG's.
- Policies DS1 – DS4 may require SEA, EIA, HDA (AA).

Chapter 3

- EIA/AA required for Policy ED2.
- Policy ED4 should be amended as follows "Encourage and facilitate **sustainable** development of the ..."
- Policy ED10 facilitates the creation of new neighbourhood centres were appropriate.

Chapter 4

- Drogheda Docklands Area – the status of this development should be clarified in terms of the SEA and Habitats Directive.
- TC11 – need to consider buffer zones, in liaison with NPWS.
- Chapter 5
- It should be ensured that SUDS/ transport technologies are promoted by means of specific Policies/ Objectives and that EIA and AA are required as appropriate and relevant.
- Chapter 6
- Policy HC1 needs to take into consideration Flood Risk appraisal and Environmental vulnerabilities as appropriate and relevant.

- 6.5.3 Checklist for the preparation of master plans: Consider further bullets for: Is the master plan subject to SEA/AA” & “Is the master plan compliant with existing higher level Policies/ Objectives”

Chapter 8

- Policy CH2 should incorporate the Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities (NPWS, 2009).
- Policy CH13 should read:
- “Protect designated **Natura 2000 sites**, including the Boyne Estuary SAC and SPA....
- Policy CH5 should be strengthened by requiring a visual impact assessment to be carried out in areas of significant landscape character.

Chapter 10

- Amend strategic objective 10 as follows “Secure **and provide** a high quality clean and healthy...”
- Policy EN4 should make reference to the EPA’s Code of Practice on Wastewater treatment and disposal systems serving Single Houses (EPA 2009).
- Policy EN9 should consider making reference to implement as appropriate the “Action Measure” set out in the Pollution Reduction Programme for Dundalk Bay Shellfish Waters.
- 10.6.6 Contaminated Lands; Reference should be made to the Environmental Liabilities Directive

Appendix

Consideration should be given to providing a map or table highlighting areas at most risk of flooding

Comments from the EPA were summarised in the Managers Report and the draft plan was amended accordingly to incorporate changes proposed and adopted by members.

Minister for the Environment, Heritage and Local Government (DoEHLG)

Submission received on the 10th of August 2009 relating to the draft plan and the Strategic Environmental Assessment to include the following comments:

- Additional reference required for built heritage
- Appropriate Assessment of the draft plan required to assess the draft plan with regard to the Natura 2000 sites.

2.2.4 Consultation on the Appropriate Assessment for the Drogheda Borough Development Plan 2011-2017

Amendments were made to the draft plan to incorporate agreed submission details which included policy changes as included within the mitigation and monitoring section.

Minister for Communication, Energy & Natural Resources

The Department of Communications, Energy and Natural Resources have no observations/ comments to make at this time. This is without prejudice to any comments/ observations the Eastern Regional Fisheries may have in this regard.

Minister for Environment Heritage and Local Government.

Archaeological Heritage

- The report contains satisfactory objectives for protection of archaeological Heritage Nature Conservation
- Policies CH2, CH3, CH4 and RA 6 are welcomed. The Department has concerns that policies RA7 and TC11 would conflict with the aforementioned policies. The projects outlined in RA7 and RA11 may have significant impact upon biodiversity, protected species and Natura 2000 sites. The SEA and AA have not adequately assessed these issues.

SEA

- It is the Departments opinion that the impact of Policies RA 7 and TC11 need to be assessed further in the SEA. In addition, in relation to the Appropriate Assessment screening prepared for the Plan, it has been concluded that appropriate assessment is not required. The statements in the screening matrix do not give adequate explanations as to why there will be no impacts. In order for the screening to be acceptable these must be backed up by fact and explained.
- The above applies not only in relation to the two policies mentioned above but also in terms of increased water abstraction from and waste water discharge to the River Boyne. All such increases, arising from this Development Plan, should be quantified and totalled with similar figures from all other authorities whose projects or plans might contribute to impacts upon the river and these cumulative impacts should be fully assessed 'in toto'.
- In order to carry out Appropriate Assessments information about the relevant Natura 2000 sites including their conservation objectives need to be collected.

Section 3: Reason for choosing the Plan.

3.1 Consideration of Alternative Development Options

The Environmental Report is required by the SEA Directive to consider reasonable alternatives taking into account the objectives and the geographical scope of the plan or programme and the significant environmental effects of the alternatives selected. Alternatives were formulated having regard to the objectives of the Plan, its geographical scope and its location within the hierarchy of land-use plans. The alternatives are explored in Chapter 5 of the Environmental Report on the Draft Plan and a summarised as follows.

Article 5 of the SEA Directive requires the Environmental Report to consider *“reasonable alternative taking into account the objectives and the geographical scope of the plan or programme”* and the significant environmental effects of the alternatives selected. This is with a view to identifying a preferred strategy for the Plan.

Alternatives must be realistic and capable of implementation, and should represent a range of different approaches within statutory and operational requirements of the particular plan. In some cases the preferred strategy will combine elements from the various alternatives considered.

Mitigation measures which attempt to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the preferred alternative, most of which have been integrated into the Development Plan.

3.2 Methodology

Each of the alternative scenarios below has been generated having regard to statutory and operational requirements of the Development Plan in terms of zoning, transportation and infrastructure. The following list of development options reflected the multiplicity or spectrum of forms of new development that may take place in the Drogheda Borough Council Development Plan area.

The need to implement the vision for Drogheda required the allocation of sufficient amounts of land for various uses. Once the method of meeting the need to provide developed lands has been determined, alternative options relating to the appropriate development is explored.

3.3 Description of Alternatives Considered

Three development scenarios were developed in the context of the SEA Environmental Report to test the possible outcomes against their strategic environmental impact and to assess the most appropriate development approach the Plan. The alternative scenarios have been generated in the context of the policy documents relating to lands. Attention was particularly focused on the consolidation of development at strategic locations such as the town centre, neighbourhood centres and transport corridors in the plan area. This consolidation will provide:

- Mixed use development
- Higher density
- High quality urban development and design

As the Drogheda Borough Council Development Plan 2011-2017 was required to be reviewed and replaced by a new development plan, under legislation a '*do-nothing*' alternative is not considered, nor is it required to be by the Directive. It is noted that Option 1 provides a minimalist approach to the development of the town and is the closest realistic scenario to a '*do-nothing*' scenario.

Option 1: Minimalist Approach

The Minimalist approach prioritizes the protection of the natural environment together with the amenity and character of existing areas and takes a restrained approach to development. The entire plan under this development scenario would include blanket policies for conservation and protection and a status quo for the additional development.

Option 2: Plan Led Approach

The introduction to the development at selective locations seeks to focus higher density development at strategic locations through the town while also protecting the existing character of the urban setting by including appropriately scaled and designed development. This approach involves the implementation of a long-term strategic planning while also building on the available relevant guidance at a national and regional level.

Option 3: Market-Led Approach

This approach would involve minimal intervention in terms of strategic planning. It would involve allowing development to follow market forces to a great extent and would take a short term planning approach. Development would not be directed towards properly serviced, robust receiving environments; rather development would be dealt with as it arises on an adhoc basis. Location and type of development would be dependant on market demand and planning proposals would be alienated from surrounding sites and evaluated on a case-by –case basis.

3.4 Monitoring Measures.

3.4.1 Integration of development options and Strategic Environmental Objectives

The following Strategic Environmental Objectives (SEOs) are listed and are integrated into the three development options to inform and in turn provide the preferred approach to development within Drogheda Borough Council plan area.

Table 1 Strategic Environmental Objectives

<i>Biodiversity, Flora and Fauna</i>	
B1	Conserve and enhance the diversity of habitats, features, species and their sustaining resources habitats in the designated habitats.
B2	To avoid significant adverse impacts, including direct, cumulative and indirect impacts, to relevant habitats, geological features, species or their sustaining resources in non designated sites.
B3	Sustain and enhance the terrestrial and aquatic habitats within ecological networks throughout the plan area.
<i>Population</i>	
P1	Improve accessibility to good quality open green space and outdoor recreation and activities.
P2	Improve accessibility to jobs / employment, education, public services, and decrease deprivation / social exclusion.
P3	Improve the supply of housing land to accommodate all housing need sectors.
<i>Human Health</i>	
HH1	Protect the Human health of citizens from hazards or nuisances arising from exposure to incompatible land use.
HH2	Minimise emissions, noise and vibrations from traffic, industry and extractive industry.
<i>Soil</i>	
SO1	Improve and safeguard the efficiency and effectiveness of land use and soil quality and quantity.

SO2	Maximise the sustainable re-use of brownfield lands, and maximise the use of the existing built environment rather than developing greenfield land.
Water	
W1	Protect and enhance the quality of surface, ground and drinking water.
W2	To prevent pollution and contamination of ground water.
W3	Improve and support water efficient technologies.
W4	Mitigate the effects of flooding.
Air and Climatic Factors	
AC1	Protect and improve local air quality.
AC2	Reduce the causes of adverse climate change (e.g. through actively seeking to reduce reduction in CO2 levels).
Material Assets	
M1	Add to the county's strategic material assets including road and rail networks affordable housing, water and waste management facilities, commercial and industrial assets.
M2	Promote the regeneration of built environment, derelict, underused or vacant land throughout the plan area.
Cultural/ Heritage	
CH1	To protect the archaeological heritage of Drogheda with regard to entries to the Record of Monuments and Places - including Zones of Archaeological Potential - and the context of the above within the surrounding landscape where relevant.
CH2	Protect, and where appropriate, enhance the historic environment including the built environment and associated settings (areas of special archaeological interest, Architectural Conservation Areas and Heritage Parks and Gardens).
CH3	Protect and support the inclusion of the Arts in Drogheda.
Landscape	
L1	Conserve and enhance natural and historic landscapes and any features of geological interest within them.
L2	Conserve and enhance vistas and views.
L3	Conserve and enhance townscape quality.

Table 2: Assessment of alternative development options in the context of the Strategic Environmental Objectives

Development Option	Promote impact on SEOs	Neutral impact on SEOs	Not compatible with SEOs
1: Minimalistic	B1 B2 B3 HH1 HH2 SO1 SO2 W1 W2 W3 W4 AC1 AC2 CH1 CH2 L1 L2	M2 L3	P1 P2 P3 M1
2. Plan Led	B1 B2 B3 P1 P2 P3 HH1 HH2 SO1 SO2 W1 W2 W3 W4 M1 M2 CH1 CH2 L1 L2 L3	AC 1 AC2	
3. Market Led	P3 M1	P2 M2	B1 B2 B3 HH1 HH2 SO1 SO2 W1 W2 W3 W4 CH1 CH2 AC1 AC2 L1 L2 L3

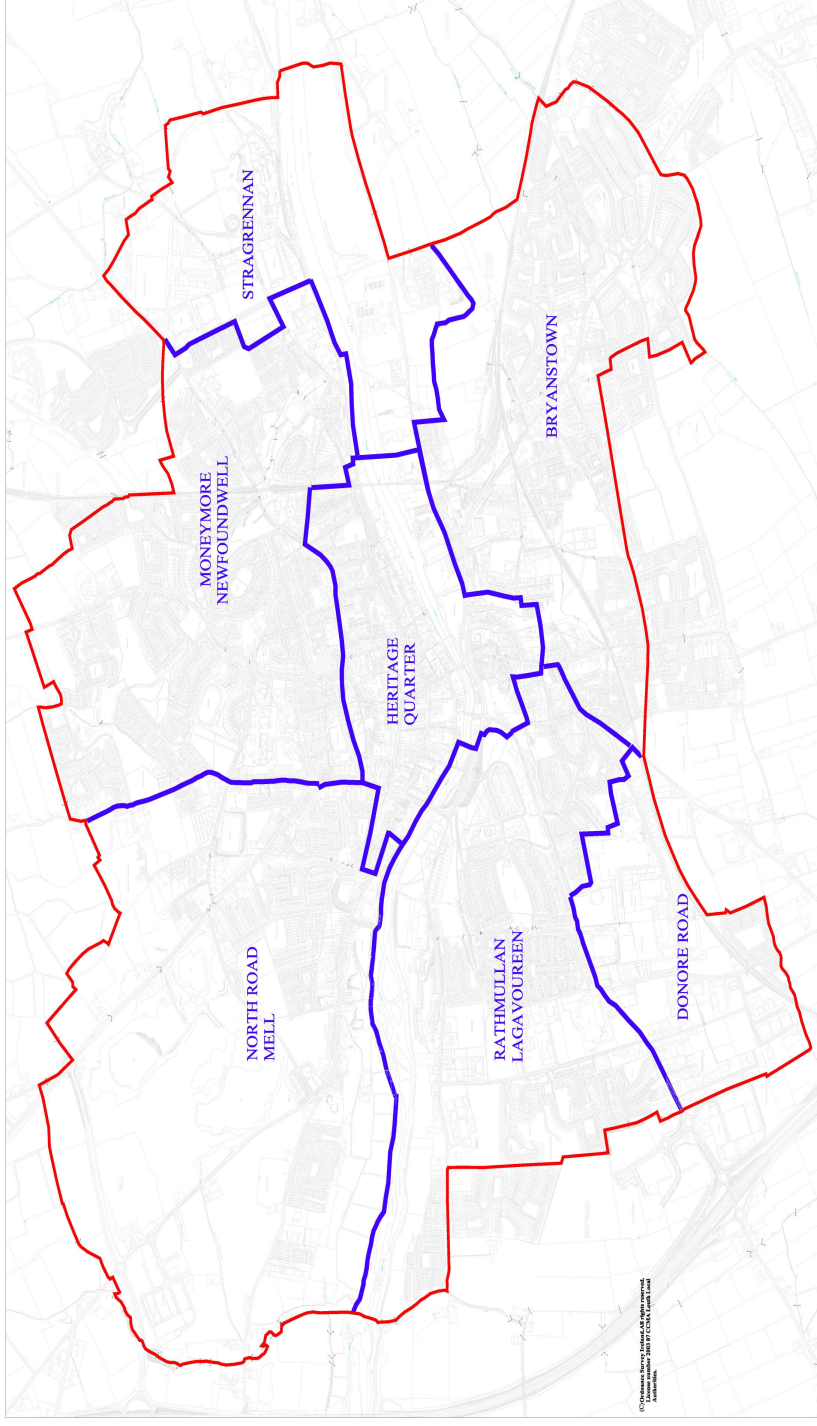
3.4.2 Chosen Option

Having regard to the overall principles which underpin the concept of sustainable development the Plan led approach was considered to be the preferable option. This approach represented the optimal course to achieve a proper balance between economic, environmental and social considerations. This approach will have the effect of protecting the environment while supporting population growth Drogheda to a level which is consistent with both sustainable development at local level and the efficient utilisation of the county's resources and the aspirations of that population for income levels, living standards, employment opportunities and job choices which are compatible with those elsewhere in the state. The approach also represented the 'best fit' at local level with national and regional policies and in particular, the national spatial strategy and the Border Region Regional Planning Guidelines.

The plan led strategy for the Drogheda Borough Council Development Plan 2011-2017 identifies seven distinct development areas covering the Plan area. These areas have been identified with due regard for manmade and natural features, topography, urban

function and local identity. They comprise Heritage Quarter, Rahtmullan/Lagavoureen, donore Road, Bryanstown, Stragrennan, Moneymore/ Newfoundwell, Mell/ North Road

Map 1.: The selected plan – Option 2, Plan Led approach



Section 4: Mitigation Measures

4.1: Introduction

The Draft Drogheda Borough Council Development Plan 2011-2017 contained a large number of ameliorating measures designed to ensure the orderly development of the town and environs which will not have an adverse impact on the environment or indeed that the level of impact is not significant. This Chapter of the Environmental Report details the mitigation measures proposed in order to avoid limit or eliminate identifiable adverse environmental impacts.

Mitigation involves ameliorating significant negative effects. Mitigation measures can be roughly divided into those that: avoid effects; reduce the magnitude or extent, probability and/or severity of effects; repair effects after they have occurred, and; compensate for effects, balancing out negative impacts with other positive ones. The mitigation measures may be incorporated into the briefing of design teams as well as the subsequent design, specification and development management of the land uses to be accommodated on the draft development plan lands.

Additional more detailed mitigation measures to those detailed below and those - integrated into the draft development plan would be likely to be required by the development management and EIA processes of individual projects.

The table below indicates how the Development Plan proposes to support the environment objectives which have been raised in this Strategic Environmental Assessment.

Table 3 Development Plan policies providing mitigation of proposed development on the environment

Environment Objectives	Development Plan Policies	Comments
Biodiversity	Open Space Facilities RA1, RA2, RA3, RA4	The plan supports the promotion of biodiversity and the objectives and actions of the Louth Biodiversity Plan. No projects giving rise to significant adverse direct, indirect or secondary impacts on Natura 2000 sites arising from their size or scale shall be permitted.
	Ecological Corridors RA6	
	Non Invasive access to the River Boyne RA7	
	Tree Protection CH5	
	Biodiversity CH1, CH2, CH3	
Population & Human Health	Housing Strategy HC1, HC2, HC3	Integration of objectives of Housing Strategy for County Louth.
	Urban Design HC10, HC11, HC16	Requirement for large proposals to be master planned.
Soil	Waste Management EN10 EN11	Compliance with relevant legislation.
	Contaminated Lands	A risk assessment shall be undertaken

	EN12	in order to identify such contaminated sites and to suggest measures for their safe rehabilitation.
	Brownfield Development TC10	Promote development within brownfield.
Water	Water Framework Directive EN1, EN9,	Compliance with any water legislation.
	Flooding Risk EN13	The plan is updated as necessary in order to integrate the relevant guidelines on flooding.
	Water Supply EN2	When published, the relevant policies and objectives of the Neagh Bann River Basin Management Plan shall be integrated.
	Water Quality EN6, EN9	Land uses 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
	Wastewater treatment EN6	The development in the plan is preceded by sufficient capacity in the public waste water treatment plant and appropriate extensions in the existing public waste water treatment catchment will be accommodated.
Air & Climatic	Sustainable Energy Development , TE5, TE6, TE7,TE8, TE10	Promote and encourage the provision and use of sustainable energy in line with EU and government policy and guidelines
	Energy Efficiency HC12	Promote energy end use efficiency and encourage the facilitation of an increase in the use of renewable energy in buildings.
	Sustainable transportation TR1,TR5,TR6, TR7,TR13, TR14	Provide a sustainable transportation system for Drogheda to secure the successful integration of land use and for the convenience of the public.
Cultural & Heritage	Built Environment CH7 CH8, CH9	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 The council shall be consulted at an

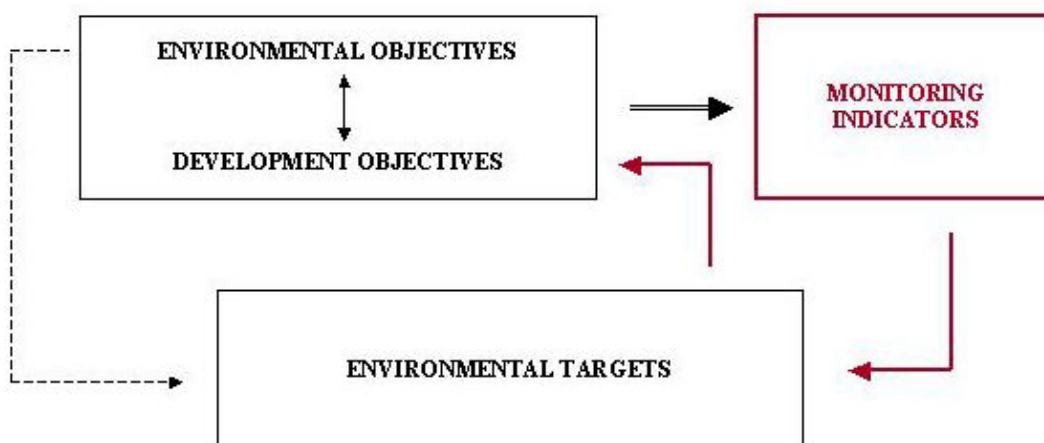
		early stage in this regard in order to determine whether there is a need for such an assessment or for specific mitigation measures.
	Archaeology CH9	The DoEHLG shall be consulted at an early stage in this regard in order to determine whether there is a need for such an assessment or for specific mitigation measures.
Landscape	Landscape protection CH7	Require designers to take into considerations the protection of landscapes and views in the design of new developments

4.2 Monitoring

Section 15(2) of the Planning and Development Act 2000 (as amended) states that the Manager shall, not later than two years after the making of a development plan, give a progress report to the members of the authority regarding the implementation of the plan. The environment is a significant consideration and the progress report will include the key findings of the environmental monitoring programme as outlined in this SEA.

Under Article 10 of the SEA Directive, monitoring must be carried out on the significant environmental effects directly related to the implementation of the plan *in order to*, inter alia, to identify at an early stage unforeseen adverse effects and to be able to undertake appropriate remedial action. The indicators and targets which shall be used for the monitoring of the environmental implications and environmental promotion of the Drogheda Borough Council Development Plan 2011-2017 are included below. These indicators measure changes in the environment and aim to simplify complex interrelationships and provide information about environmental issues which is easy to understand.

Table 4 Integration of Environmental Objectives, targets and monitoring indicators.



4.3 Strategic Environmental Objectives

In order to achieve the aim of assessing and improving the environmental performance of the Drogheda Borough Council Development Plan, a number of Strategic Environmental Objectives (SEOs), specific to each environmental topic have been formulated. These Strategic Environmental Objectives are a fundamental part of the SEA process. The objectives are derived through consultation between the planning authority, the report authors (guided by SEA guidelines, incorporating where relevant international, national and regional policies which govern environmental protection/conservation) and are based on the overall strategy of the planning authority to safeguard the environmental integrity of the Drogheda Development Plan area and to develop its area in a sustainable manner.

Strategic Environmental Objectives are distinct from the objectives and policies contained in the plan, though the process of preparing the Drogheda Development Plan in conjunction with the SEA allows for the incorporation of environmental themes at an early stage of the process.

The Draft Drogheda Borough Council Development Plan 2011-2017 has a large number of policies which translate strategic objectives into more specific policies guiding the working of the Plan. The effect of these strategic objectives and subsequent policies has been cross checked against the environmental protection objectives detailed below. This procedure has been achieved through the use of a matrix.

The process has identified strategic objectives and policies which may result in significant environmental impacts. As such, alternatives may be considered or mitigation measures suggested.

Strategic Environmental Objective (SEO): An objective is a statement of what is intended.

Indicator: An indicator is a measure of variables over time, used to measure achievements.

Target: A target is a more detailed plan specific to intended achievement.

Abbreviation

SAC: Special Area of Conservation

NHA: National Heritage Area

SPA: Special protection Area.

Biodiversity, Flora and Fauna

Environmental Objectives		Indicators	Targets
B 1	Conserve and enhance the diversity of habitats, features, species and their sustaining resources habitats in the designated habitats.	<ul style="list-style-type: none"> ▪ % loss of designated species within the designated sites during the lifespan of the plan. ▪ % change in condition of SACs, NHAs, SPAs. ▪ Trends observed by Bird Survey of Ireland. 	<ul style="list-style-type: none"> ▪ Percentage of relevant habitats and ecological material within the designated Natura 2000 sites Boyne Estuary SAC and SPA, River Boyne and Blackwater SAC and any loss as a result of the implementation of the Drogheda Plan. ▪ Require Appropriate Assessment of proposals which are adjacent to designated sites. ▪ % of greenfield sites developed within the designated areas.
B 2	To avoid significant adverse impacts, including direct, cumulative and indirect impacts, to relevant habitats, geological features, species or their sustaining resources in non designated sites .	<ul style="list-style-type: none"> ▪ % retention of trees within the Tree Preservation Order ▪ % of open space lands and % of ecological corridors ▪ Number of actions / objectives undertaken as part of Biodiversity Action Plan for Louth 2009- 2013. 	<ul style="list-style-type: none"> ▪ Public consultation of proposed Tree Preservation orders. ▪ Implement the objectives of the Biodiversity Action Plan for Louth 2008- 2012 ▪ Designation of ecological corridors within the plan.
B 3	Sustain and enhance the terrestrial and aquatic habitats within ecological networks throughout the plan area.	<ul style="list-style-type: none"> ▪ Rivers of good and fair biological quality ▪ % of ecological corridors within planning permissions and incorporated. ▪ % of ecological corridors development in tandem with cycle, pedestrian links including riparian corridors and former transport 	<ul style="list-style-type: none"> ▪ Have regard to River Basin Management Plan for Neagh Bann. ▪ Have regard to national habitat surveys during the lifespan of plan.

	corridors.	
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Population and Human Health

SEO Environmental Objectives		Indicators	Targets
Population			
P1	Improve accessibility to good quality open green space and outdoor recreation and activities.	<ul style="list-style-type: none"> ▪ Land identified as 'amenity' spaces on zoned lands in Drogheda and quantity of open space provided as part of new developments and status of completion 	<ul style="list-style-type: none"> ▪ Increase range and distribution of green open spaces for public and private use.
P2	Improve accessibility to jobs/employment, education, public services, and decrease deprivation / social exclusion.	<ul style="list-style-type: none"> ▪ % of development along public transport nodes ▪ Creation of green linkages and linear walks ▪ Number of cycle-lanes provided. ▪ Number of Mobility Management Plans in operation as part of planning permission 	<ul style="list-style-type: none"> ▪ Reduce private car usage, increase and promote ▪ Walking and cycling and increase access to sustainable means of travel and promote private and public bus services
P3	Improve the supply of housing land to accommodate all housing need sectors.	<ul style="list-style-type: none"> ▪ Range and mix of housing types provided with planning applications. 	<ul style="list-style-type: none"> ▪ Compliance with the Louth County Housing Strategy
Human Health			
HH1	Protect the Human health of citizens from hazards or nuisances arising from exposure to	<ul style="list-style-type: none"> ▪ Any spatially concentrated deterioration in human health. 	<ul style="list-style-type: none"> ▪ No adverse impact on human health from external environmental factors.

	incompatible land use.		
HH2	Minimise emissions , noise and vibrations from traffic, industry and extractive industry.	<ul style="list-style-type: none"> ▪ Number of Notices served under Regulations ▪ Air Quality Monitoring 9 (EPA) ▪ EIS Monitoring Compliance 	<ul style="list-style-type: none"> ▪ Good air quality ▪ No deterioration in levels of Drinking Water Quality Standards

Soil

SEO Environmental Objectives		Indicators		Targets	
SO1	Improve and safeguard the efficiency and effectiveness of land use and soil quality and quantity	<ul style="list-style-type: none"> ▪ % of contaminated lands cleaned and reused. 	<ul style="list-style-type: none"> ▪ Minimise lands which have been contaminated. 		
SO2	Maximise the sustainable re-use of brownfield lands, and maximise the use of the existing built environment rather than developing greenfield land	<ul style="list-style-type: none"> ▪ Area of brownfield land developed over the plan period 	<ul style="list-style-type: none"> ▪ Implement the Brownfield availability sites data ▪ Prioritise higher density development to the town centre and existing neighbourhoods. 		

Water

SEO Environmental Objectives		Indicators		Targets	
W1	Protect and enhance the quality of surface, ground and drinking water .	<ul style="list-style-type: none"> ▪ Integration of Draft River Basin Management Plan for Neagh Bann District. ▪ Protection of high quality waters (unpolluted) 	<ul style="list-style-type: none"> ▪ Reduce water pollution and protect, maintain and enhance Water Quality and good ecological status as set out in the 		

			<p>Q5).</p> <ul style="list-style-type: none"> ▪ Number of upgrades to waste water treatment works. 	<p>Water Directive 2015 and Draft River Basin Management Plan.</p> <ul style="list-style-type: none"> ▪ Advancement of the expansion of Staleen WTP to meet projected growth in population and industry and compliance with quality standards will be required during the lifetime of the Plan.
W2	To prevent pollution and contamination of ground water		<ul style="list-style-type: none"> ▪ Implement the Co Louth ground water protection scheme to meet Groundwater Quality Standards and Threshold Values under Directive 2006/118/EC. ▪ Number of waste water treatment plants with nutrient removal. 	<ul style="list-style-type: none"> ▪ Compliance with Groundwater Quality Standards and Threshold Values under Directive 2006/118/EC ▪ Reduction in discharges of pollutants or contaminants to waters ▪ Increase amount of nutrient removal at wastewater treatment plants
W3	Improve and support water efficient technologies.		<ul style="list-style-type: none"> ▪ Promote water conservation and reduction of water loss. ▪ Promote sustainable water use based on a long term protection of available water resources. 	<ul style="list-style-type: none"> ▪ Number of installation and water metres. ▪ Implement Water Services Investment Programme "Assessment of future needs 2007- 2014".
W4	Mitigate the effects of flooding .		<ul style="list-style-type: none"> ▪ Flood Impact Assessments and compliance with Flood Guidelines. (part of planning applications) ▪ OPW Flood Hazard Mapping ▪ No of planning applications processed using SUDS. 	<ul style="list-style-type: none"> ▪ Only development supported by 'The Planning System and Flood risk Management' (Consultation Draft Guidelines for Planning Authorities, September 2008) will be allowed within functional flood plains and other areas identified and being at risk from flooding ▪ Restrict development in flood plains ▪ Use of SUDS for all proposed developments.

Air and Climatic Factors

Environmental Objectives		Indicators		Targets	
SEO					
AC1	Protect and improve local air quality	<ul style="list-style-type: none"> ▪ Provision of new cycle paths in towns ▪ CSO transport information ▪ Number of people travelling to work school via non-mechanical means. ▪ Air quality monitoring station in Zone C 	<ul style="list-style-type: none"> ▪ Facilitate cycle path provision ▪ Decrease in distance travel to work/ essential distance travelled. 		
AC2	Reduce the causes of adverse climate change (e.g. through actively seeking to reduce reduction in CO2 levels).	<ul style="list-style-type: none"> ▪ Use of renewable energy sources ▪ Use of sustainable materials and the adoption of lifetime standards. 	<ul style="list-style-type: none"> ▪ Progressively implement the recommendations contained in the Government's Green Paper, 'Towards a Sustainable Energy Future for Ireland' ▪ Reduction in the emission of air borne particulates generated by transportation, commercial and domestic activities 		

Material Assets

Environmental Objectives		Indicators		Targets	
SEO					
M1	Add to the county's strategic material assets including road and rail networks affordable housing, water and waste management facilities, commercial and industrial assets.	<ul style="list-style-type: none"> ▪ Maintain and augment existing infrastructure within Drogheda and mitigate the potentially negative effects of further infrastructure provision e.g. roads 	<ul style="list-style-type: none"> ▪ Limit number of new developments granted permission which cannot be adequately served by a public waste water treatment plant and sustainable modes of transport. 		

M2	Promote the regeneration of built environment , derelict, underused or vacant land throughout the plan area	<ul style="list-style-type: none"> ▪ Increase % of applications granted on brownfield sites ▪ Number of applications with mixed use on upper floors. 	<ul style="list-style-type: none"> ▪ Maximise use of the existing built environment ▪ Regenerate derelict, vacant or contaminated land. ▪ Increased re-use and appropriate development on upper floors
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Cultural/ Heritage

SEO Environmental Objectives		Indicators		Targets	
CH1	To protect the archaeological heritage of Drogheda with regard to entries to the Record of Monuments and Places - including Zones of Archaeological Potential - and the context of the above within the surrounding landscape where relevant	<ul style="list-style-type: none"> ▪ 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 	<ul style="list-style-type: none"> ▪ 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 		
CH2	Protect, and where appropriate, enhance the historic environment including the built environment and associated settings (areas of special archaeological interest, Architectural Conservation Areas and Heritage Parks and Gardens)	<ul style="list-style-type: none"> ▪ Number of applications within ACAs, protected structures and national monuments. ▪ Number of additional protected structures and recorded ACAs. 	<ul style="list-style-type: none"> ▪ Prevent damage to or loss of protected structures, national monuments or works within an ACA. ▪ Have regard to County Heritage Plan in order to conserve, protect and promote sustainable management of archaeological sites. 		
CH3	Protect and support the inclusion of the Arts in Drogheda.	<ul style="list-style-type: none"> ▪ Number of objectives complied with in the County Arts Plan. 	<ul style="list-style-type: none"> ▪ Have regard to the County Arts Plan in order to support the development of the arts in Drogheda. 		

Landscape

SEO		Environmental Objectives	Indicators	Targets
L1	Conserve and enhance natural and historic landscapes and any features of geological interest within them.	<ul style="list-style-type: none"> Proposals which integrate existing features of geological interest. 	<ul style="list-style-type: none"> Prepare and implement a landscape management plan 	
L2	Conserve and enhance vistas and views	<ul style="list-style-type: none"> % of planning applications on sites where views are protected. 	<ul style="list-style-type: none"> No developments permitted which result in avoidable impacts on the designated views and vistas. 	
L3	Conserve and enhance townscape quality	<ul style="list-style-type: none"> Proposals/ Masterplans and Character Area plans to be undertaken which enhance the urban environment. 	<ul style="list-style-type: none"> To complement and implement Character Area Plans and Master plans for Drogheda. 	

4.4 Conclusion

All proposals for development will be required to have due regard to the environmental considerations outlined throughout the Drogheda Borough Council development plan and adhere to the principals of sustainable development. These include in particular, policies promoting the use of sustainable transport modes, sustainable energy principals and sustainable urban drainage (SUDS) methods.

Cognisance was placed on the environment at the forefront of the plan making and because of this any potential significant environmental impacts of the plan were identified at the initial stages and given appropriate consideration. The policies and objectives were informed by the Strategic Environmental process and as indicated in the Appropriate Assessment of the plan the policies will not have a negative impact on the Natura sites or the environment. The SEA process will continue throughout the adoption and any proposed changes in policy will be investigated for potential environmental effects.

Drogheda Borough Council and Louth County Council are responsible for collating relevant monitored data, the preparation of a monitoring report. A Steering Committee will be established to oversee the monitoring process.