



2008-14

ENNISCORTHY

**Strategic Environmental Assessment
Environmental Report**



2008-14

SEA Environmental Report

Enniscorthy Town and Environs Development Plan 2008 - 2014

Strategic Environmental Assessment is a process to ensure that significant environmental effects arising from policies, plans and programmes are identified, assessed, mitigated, communicated to decision-makers, and monitored. The purpose of the environmental report is to identify, evaluate and describe the likely significant effects on the environment of implementing the Enniscorthy Town & Environs Development Plan. The environmental report is the primary element in the SEA process and is recognised as a key mechanism in promoting sustainable development.





Table of Contents

Non Technical Summary	7
Chapter 1. Introduction	11
1.1 Strategic Environmental Assessment	11
1.2 Draft Plan and SEA Requirement	13
Chapter 2. Methodology	14
2.1 Legislative Requirements	14
2.2 Screening	14
2.3 Scoping	15
2.4 Consultation with Environmental Authorities	15
2.5 Baseline Study	15
2.6 Considerations of Alternatives	16
2.7 Environmental Assessment	17
2.8 The Environmental Report	17
2.9 Making the Elected Members' Decision Public	17
Chapter 3. Environmental Baseline	18
3.1 Introduction	18
3.2 Biodiversity Flora & Fauna	20
3.3 Population & Human Health	24
3.4 Soil	28
3.5 Water	29
3.6 Flooding & Climate Change	31
3.7 Air & Climatic Factors	31
3.8 Material Assets	32
3.9 Cultural Heritage	33
3.10 Landscape	35
Chapter 4. Development of Strategic Environmental Objectives	36
4.1 Biodiversity, Flora & Fauna	36
4.2 Population & Human Health	37
4.3 Soil	39
4.4 Water	39
4.5 Flooding	41
4.6 Air & Climatic Factors	41
4.7 Material Assets	42
4.8 Cultural Heritage	43
4.9 Landscape	43
Chapter 5. A Town & Environs Plan for Enniscorthy	44
5.1 Strategic Aim of the Plan	45
5.2 Goals of the Plan	45
5.3 Development Strategy	46

Chapter 6. Development Alternatives	47
6.1 The 'do-nothing' alternative Option	47
6.2 Option A - Diffusion	47
6.3 Option B - Diffusion of Town within Proposed By-pass Area	48
6.4 Option C - Consolidation of Radial Structure	49
Chapter 7. Evaluation of Development Alternatives	50
7.1 Evaluation of Development Alternatives A, B, & C	51
7.2 Assessment of Policies & Objectives	53
Chapter 8. Mitigation Measures	67
8.1 Biodiversity, Flora & Fauna	67
8.2 Soil	67
8.3 Water	68
8.4 Flooding	68
8.5 Material Assets	69
Chapter 9. Monitoring Measures	70
9.1 Monitoring Indicators	70
9.2 Summary of Monitoring	72
Appendix	73
(SAC) & (pNHA) Slaney River Valley	73
(pNHA) Ballynabarny Woods	77
Irish Habitats and Species of European Importance	78

Non Technical Summary

This is the Non-Technical Summary to the Environmental Report on the Enniscorthy Town & Environs Plan 2008-2014. The purpose of the Environmental report is to provide a clear understanding of the likely environmental consequences of decisions regarding the future accommodation of growth in Enniscorthy.

Purpose of Environmental Report

Strategic Environmental Assessment is a process to ensure that significant environmental effects arising from policies, plans and programmes are identified, assessed, mitigated, communicated to decision-makers, and monitored. The purpose of the environmental report is to identify, evaluate and describe the likely significant effects on the environment of implementing the Enniscorthy Town & Environs Development Plan. The environmental report is the primary element in the SEA process and is recognised as a key mechanism in promoting sustainable development. The purpose of this Non-Technical Summary is to ensure that the key issues and findings of the Environmental Report can be readily understood.

Methodology

On the 9th Nov 2005 Wexford County Council & Enniscorthy Town Council commenced the preparation of the new Enniscorthy Town & Environs Development Plan for the period 2008-2014, with the public notice advertisement in the paper. This advertisement included the notification of a SEA also being carried out in conjunction with the plan. The Planning and Development (SEA) Regulations 2004 require that SEA be carried out in respect of Town Development Plans where the population of the area is 10,000 persons or more. Following the screening process it was decided that an SEA would be required.

The SEA process involved consulting the relevant statutory agencies. This was an important first step in the SEA process in order to scope the extent and type of information that should be contained in the environmental report. Through the scoping exercise of the SEA, for the Enniscorthy Town & Environs Development Plan the significant impacts predicted include those relating to;

- Biodiversity
- Flooding / Climatic Factors
- Wastewater Treatment Capacity
- Cultural Heritage

Other key issues include the following; water quality, landscape, townscape, riverscapes, waste management, traffic management, public transport and car parking, Enniscorthy bypass, amenity open space, tourism. Scoping of the SEA was continuous. Scoping helped the SEA to become focused upon the important issues, such as those relating to existing environmental problems, not wasting resources on unnecessary data collection.

Following on from that the baseline data collection stage involved the collation of currently available and relevant environmental data. The environmental report also considers the relationship between the Enniscorthy Town & Environs Development Plan and other plans and policies and assesses the impact of its objectives and strategies. The Enniscorthy Town & Environs Plan is considered to be compliant with National and Regional guidance such as the National Spatial Strategy 2002-2020 and the Regional Planning Guidelines 2004-2016.

Baseline Data

In order to identify, describe and evaluate the likely significant environmental effects of implementing the Enniscorthy Town & Environs Development Plan, relevant aspects of the environmental baseline, the current state of the environment, were identified and evaluated. This information has been devised from statutory agencies, internal departments in the Council, the internet, local and national publications and planning applications. No additional studies were commissioned by the Council for the purposes of Strategic Environmental Assessment of the Plan. The detailed baseline description of the environment can be found under Chapter 3.

Consideration of Alternatives

The SEA Directive requires that reasonable alternatives, taking into account the objectives and the geographical scope of the plan or programme are identified, described and evaluated for their likely significant effects on the environment. As part of the Enniscorthy Town Plan process a range of alternatives including the 'do-nothing' scenario were considered for the development of the Town & Environs area and are detailed in the Environmental Report. These are as follows;

Option A - Diffusion

Enniscorthy could select a strategy where population expansion would no longer be concentrated in the town itself. Instead expansion might be absorbed by surrounding villages and settlements. These villages might develop as satellite communities while the existing town edge would remain essentially as it is, without pressure for further extension. There are two reasons however for not pursuing such a strategy. Firstly the existing town is still below the threshold of size above which it would support the development of internal local public transport or the development of critical mass of shops to satisfy regional needs. It is also below the threshold that allows the development of a number of higher rank central place functions. Secondly the social character and infrastructure of the surrounding villages are not ready to accept the imposition of sudden and radial population increase due to out migration from Enniscorthy.

Option B – Diffusion within Proposed By-pass Area

Another option, which Enniscorthy might pursue is that of using the proposed bypass as an expansion limit, with a long term policy of developing residential neighbourhoods against the bypass, separated by green parkland from the town edge. This would draw pressure away from the town edge and spread the existing town in a more dispersed manner. This proposed option of dispersal would be similar to a dispersal of the population to the outer settlements as discussed under 'Diffusion', except that here the settlements would be purpose-built within the town's environs. One disadvantage of this strategy however is the uncertain time frame for commencement and completion of the bypass and traffic congestion and associated problems that would exist in the interim. Also this strategy would put further reliance on the use of the car, as distances to town centre uses and services would be too far for walking or cycling in the absence of safe pedestrian and cycle links. This option is considered unsustainable.

Option C – Preferred Option, Consolidation of Radial Structure

A final strategy considered is one, which might use the existing structure with its series of radials and its somewhat circular compact characteristic and refine or consolidate this structure to increase its efficiency and balance development on the east and west. Here a number of radial routes have been selected and inter-linked by proposed circulation routes on the outer edges of the town. The existing shell of the older residential areas around the centre would remain unpenetrated by major routes, maintaining a pedestrian scale of contact between the older inner suburbs and the centre. This strategy would be highly sustainable and would extend in an easily adjustable fashion the existing and recently developing structure of the town. It would represent the concept of supply-based planning.

This option incorporates relevant National & Regional & County Strategies while also providing a structures vision that will realistically accommodate continued urban growth. This scenario is generally believed to have the lowest environmental impacts, providing that the mitigation measures proposed are adopted.

Environmental Assessment

The environmental assessment of objectives of the Enniscorthy Town & Environs Development Plan are the central component of the Report (Chapter 7). The methodology used in the Report comprised of a series of matrixes which were used to refine and focus objectives used in the County Plan. In predicting likely significant impacts of the plan, existing data sources were used as baselines data.

Key Environmental Issues

Biodiversity

- **Designated Wildlife Sites** - The Water Quality Status of the River Slaney catchment in Enniscorthy and the possibility of future pollution may significantly impact upon the biodiversity, flora and fauna of the Slaney River Valley (SAC) & (pNHA) & Ballynabarny (pNHA). Increased development pressures as a result of the growth of Enniscorthy Town & Environs may also impact upon the designated wildlife sites, significantly adversely impacting upon the ecological connectivity between these sites.
- **Terrestrial Biodiversity, Flora and Fauna** - All habitats in Enniscorthy have been impacted upon to varying degrees by human beings over time. The clearing of vegetation from Enniscorthy's land centuries ago resulted in the replacement of natural habitats with semi-natural, low biodiversity habitats. This replacement was accentuated with the intensification of agriculture in the 20th century.
- **Aquatic Biodiversity, Flora & Fauna** - The water quality status of the Slaney is likely to impact upon aquatic biodiversity, flora & fauna to the extent whether fish populations or macro-invertebrates can be supported as they are not tolerant to serious pollution.
- **Ecological Networks** - Buffer zones around a number of streams have not been uniformly maintained, which provide essential linkages and ensure ecological connectivity between all habitats, including designated wildlife sites.

Flooding/Climatic Factors

At present flooding may be expected, on average, every 15 years though with Climate Change this becomes once in 7 years. At present when flooding does occur a number of residential properties and commercial properties are severely damaged. The problem is that a number of these are quite old buildings with terraced residential streets of protected structure in the historic town centre core. Any of the newer buildings have been designed to withstand the highest known flood levels. The problem is with climate change and sea level rise and the tidal nature of the river the historic flood levels may be exceeded.

Wastewater Treatment Capacity

In a "do nothing" scenario, the hydraulic overload will increase resulting in increased volumes of untreated sewage entering the River Slaney as the existing treatment plant will not be able to cater for future loads. The option not to extend the Enniscorthy WWTP would result in deterioration in the water quality of the River Slaney. It could also result in a contravention of the EU Council Directive (91/271/EEC) concerning urban wastewater treatment incorporated into Irish Law under SI 419 of 1994.

It is considered that the proposed development will have a positive effect on water quality in the area. The installation of the proposed WWTP and associated works for Enniscorthy town and

environs will significantly improve water quality in the receiving waters in the River Slaney and Urrin Stream, and will eliminate a number of other outfalls to the river (e.g. at Killagoley).

Cultural Heritage

Future development of the town could result in a change of Enniscorthy's well known historical character. The Plan for Enniscorthy should include a town Design Strategy in order to maintain its original features. Development guidelines should also be included in the Plan to promote development which is in keeping with the historical nature of Enniscorthy. These guidelines and designs should harmonize Enniscorthy's Architectural and Archaeological Protection Legislation. The protection zone around Vinegar Hill is also of vital importance as it is coming under increasing development pressure, and it should be protected from encroaching inappropriate developments.

Mitigation

It should be noted that Strategic Environmental Assessment is an integral part of the development of the Plan and that its final iteration incorporates policies that have evolved to anticipate and avoid potentially adverse impacts on the environment. Remaining potentially adverse conflicts or impacts may be characterised as 'residual impacts'. These are unavoidable potential impacts that remain after all mitigation measures have been put in place. The majority of these are potential impacts which are likely to be capable of further mitigation (Chapter 8).

Monitoring

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

The purpose of monitoring is to cross check significant effects, which arise during the implementation stage of the development plan, against those predicted during the plan preparation stage. Monitoring is often based on indicators, which measure changes in the environment, especially changes which are critical in terms of environmental quality. Indicators aim at simplifying complex interrelationships and providing information on environmental issues, which are relatively easy to understand.

The statutory Managers Progress Report to be prepared 2 years after the adoption of the Town & Environs Plan under Section 15(2) of the Planning and Development Act (as amended), 2002 - 2006. It is anticipated that the environmental indicators set out in Chapter 9 will be used to monitor the predicted environmental impacts of implementing the Plan and will be presented in the context of the 2 year plan review. Where existing monitoring is being carried out i.e. in relation to water quality, air quality etc., these data sets will be collated in the review.

Monitoring Indicators

Monitoring is based around the indicators, which were chosen earlier in the process (Chapter 4). These indicators allow quantitative measures of trends and progress over time relating to the SEOs 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 are used in order to monitor the selected indicators where possible. Indicators and monitoring plan listed in Chapter 9.

Introduction

This is a Strategic Environmental Assessment (SEA) Environmental Report for the Enniscorthy Town & Environs Development Plan 2007-2013. This section discusses the legal requirements of SEA, its implications for the Town & Environs Development Plan and its main findings to date. The purpose of the report is to provide the Elected Members with a clear understanding of the likely environmental consequences of decisions regarding the future accommodation of growth in Enniscorthy.

Wexford County Council & Enniscorthy Town Council commenced the joint preparation of the new Enniscorthy Town & Environs Development Plan on the 26th Oct 2005. This plan sets out the spatial planning framework and overall strategy for the proper planning and sustainable development of the town & environs area for the six year period 2008-2014.

In addition to the making of the Enniscorthy Town & Environs Development Plan, the Planning Authority was also obliged to carry out a Strategic Environmental Assessment (SEA) of the plan in parallel with its formulation.



1.1 Strategic Environmental Assessment

On the 5th June 2001, the European Council adopted the Directive 2001/42/EC on the Assessment of the Effects of Certain Plans and Programmes on the Environment ("the SEA Directive") (EU, 2001), which took effect in the member states on the 21st July 2004. The Strategic Environmental Assessment Directive was passed into Irish law on the 14th July 2004 by means of the Planning and Development (Strategic Environmental Assessment) Regulations (S.I.435 & S.I.436). The Directive requires all European Union Member States to systematically evaluate the likely significant effects of implementing a plan or programme prior to its adoption.

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

SEA is an important instrument to help to achieve sustainable development in public planning and policy making. The importance of SEA is widely recognised. Particular benefits of SEA include:

- To support sustainable development.
- To improve the evidence base for strategic decisions.
- To facilitate and respond to consultation with stakeholders.
- To streamline other processes such as Environmental Impact Assessments of individual development projects.

The SEA process for land-use plans includes:

- Preparing an Environmental Report where the likely significant environmental effects are identified and evaluated.
- Consulting the public, environmental authorities, and any EU Member State affected, on the environmental report and draft plan.
- Taking account of the findings of the report and the outcome of these consultations in deciding whether to adopt or modify the draft plan.
- Making known the decision on adoption of the plan and how SEA influenced the outcome.

In accordance with Article 2 of the Directive, this assessment process must result in an environmental report which must identify, describe and evaluate the likely significant effects on the environment of implementing the plan and reasonable alternatives. In particular, the report must contain:

- An outline of the contents and main objectives of the plan, and of its relationship with other relevant plans and programmes.
- Description of the relevant aspects of the current state of the environment and the likely evolution of the environment without the implementation of the plan.
- A list of the environmental protection objectives at international, EU and national level, which are relevant to the plan and describe how they have been taken into account in the formulation of the plan.
- Description of the likely significant effects on the environment (biodiversity, human health, cultural heritage, air, soil, water etc).
- Mitigation measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment caused by implementing the plan.
- An outline of the reasons for selecting the alternatives considered and a description of how the assessment was undertaken including any difficulties.
- Description of proposed monitoring measures.
- A non-technical summary of the information provided under the above headings.

The purpose of the environmental report is to identify, evaluate and describe the likely significant effects on the environment of implementing the Enniscorthy Town & Environs Development Plan.

The SEA process requires that baseline data be collected using the indicators described in the SEA Directive. These topics are biodiversity, fauna, flora, population, human health, soil, water, air/climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above. The impacts to be considered include secondary, cumulative, synergistic, short, medium and long-term permanent and temporary, positive and negative.

Before impacts on the environment can be predicted, it is necessary to achieve an understanding of the relevant existing conditions. No primary research was carried out in the

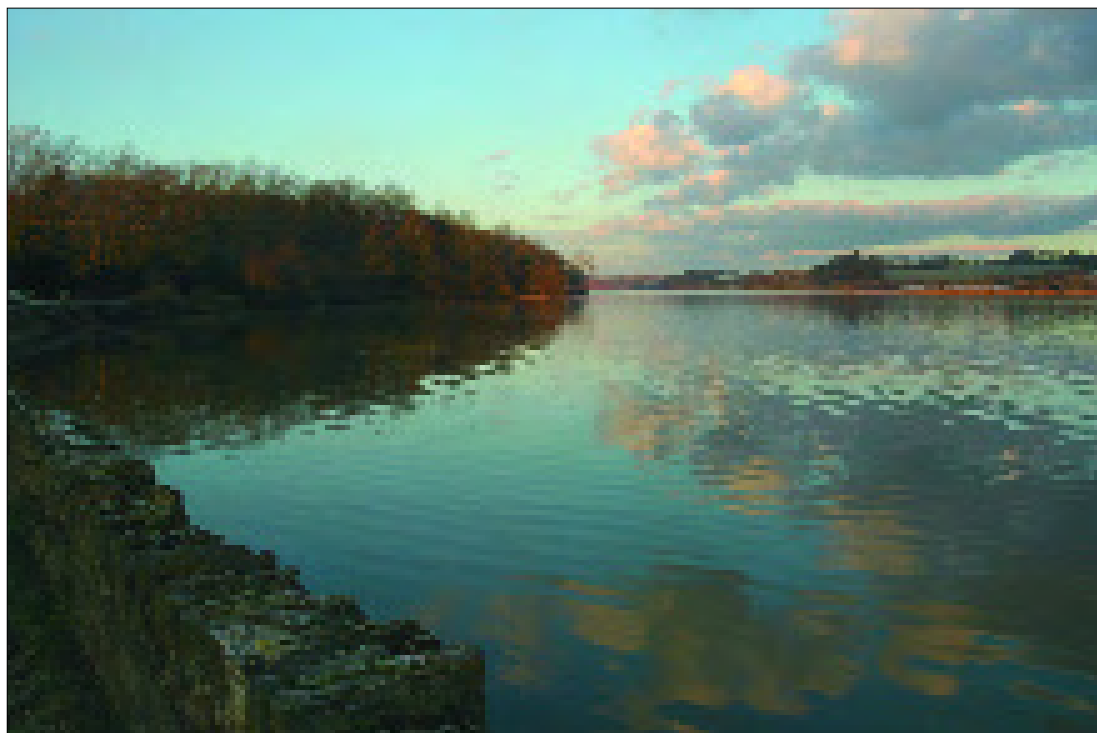
collection of baseline data, apart from existing data sources were used. Such sources ranged from C.S.O. Census statistics, Environmental Protection Agency, Council data on water, air, noise and traffic and information from environmental impact statements submitted as part of planning applications.

1.2 Draft Plan and SEA Requirement

On the 9th Nov. 2005 Wexford County Council & Enniscorthy Town Council commenced the preparation of the new Enniscorthy Town & Environs Development Plan for the period 2008-2014, with the public notice advertisement in the paper. This advertisement included the notification of a SEA also being carried out in conjunction with the plan. The Planning and Development (SEA) Regulations 2004 require that SEA be carried out in respect of Town Development Plans where the population of the area is 10,000 persons or more. Following the screening process it was decided that an SEA would be required.

On the 7th December 2006 a public meeting was held in Kilcannon Conference Centre. The principal aim of the Pre-Plan Consultation was to gain an understanding of the issues that are of concern to those working, living and investing in the Enniscorthy town and environs area.

The Planning Authority have met the requirements of the Directive by preparing an SEA Environmental Report in parallel with the Enniscorthy Town & Environs Development Plan making process. Initial scoping took place in January 2006 with the prescribed environmental authorities, EPA, Department of the Environment, Heritage and Local Government and Department of Communication, Marine and Natural Resources. A more detailed scoping consultation took place in February 22nd 2007 with EPA. This Environmental Report relates to the consultative draft of the Enniscorthy Town & Environs Development Plan. Following consultation with the relevant agencies on both the Draft Plan and this Environmental Report, this SEA was finalised.



Methodology

2.1 Legislative Requirements

The methodology devised to carry out the SEA of the Enniscorthy Town & Environs Development Plan followed the requirements as set out in the SEA Directive and the Department of Environment, Heritage and Local Government SEA Guidelines 2004. Guidance provided by the Environmental Protection Agency was also instructive.

This report complies with the provision of the SEA Regulations and is written in accordance with Schedule 2B of the Planning & Development (SEA) Regulations 2004 (SI No. 436 of 2004). The production of the Environmental Report is an intrinsic component of the EU Directive.

The following is a reproduction of the checklist of information to be contained in the Environmental Report and includes the relevant section of this report which deals with these requirements.

- A. Outline of the contents and main objectives of the plan, and of its relationship with other relevant plans and programmes; Chapter 4,5 and 6.
- B. Description of relevant aspects of the current state of the environment and evolution of that environment without implementation of the plan: Chapter 3.
- C. Description of the environmental characteristics of areas likely to be significantly affected: Chapter 3,4 and 7.
- D. Identification of any environmental problems which are relevant to the plan, particularly those relating to European protected sites: Chapter 3.
- E. List environmental protection objectives, established at international, EU or national level, which are relevant to the plan and describe how those objectives and any environmental considerations have been taken into account when preparing the plan: Chapter 4 and 7.
- F. Describe the likely significant effects on the environment: Chapter 7.
- G. Describe any measures envisaged to prevent, reduce and as fully as possible offset any significant adverse environmental effects implementing the plan: Chapter 8.
- H. Give an outline of the reasons for selecting the alternatives considered, and a description of how the assessment was undertaken (including any difficulties) : Chapter 2 and 6.
- I. A description of proposed monitoring measures: Chapter 9.
- J. A non-technical summary of the above information: At the start of this Report.
- K. Interrelationships between each Environmental topic: Addressed as it arises in each topic.

2.2 Screening

The Planning & Development (SEA) Regulations 2004 makes SEA mandatory for the preparation or review of Town Plans where the population is 10,000 persons or more. Enniscorthy Town is estimated to have a population of just under 10,000 and will likely reach 10,000 over the life of the 6 year plan. Having regard to this and that the implementation of the Enniscorthy Town & Environs Development Plan 2007-2013 would be likely to have significant environmental effects thus requiring the Plan to undergo SEA.



2.3 Scoping

Through the scoping exercise of the SEA, for the Enniscorthy Town & Environs Development Plan the significant impacts predicted include those relating to;

- Biodiversity
- Flooding / Climatic Factors
- Wastewater treatment capacity
- Cultural Heritage

Other key issues include the following; water quality, landscape, townscape, riverscapes, waste management, traffic management, public transport and car parking, Enniscorthy bypass, amenity open space, tourism. Scoping of the SEA was continuous. Scoping helped the SEA to become focused upon the important issues, such as those relating to existing environmental problems, not wasting resources on unnecessary data collection.

2.4 Consultation with Environmental Authorities

The SEA Directive specifies in Article 6(3) that 'member states shall designate the authorities to be consulted'. The Environmental Protection Agency (EPA), Department of the Environment, Heritage and Local Government, and the Department of Communication, Marine and Natural Resources were all consulted in order to determine the scope of the SEA. A number of meetings at the scoping stage were held with the EPA in particular.

2.5 Baseline Study

Before impacts on the environment can be predicted, it is necessary to achieve an understanding of the relevant existing conditions. No primary research was carried out in the collection of baseline data apart from existing data sources. Such sources ranged from C.S.O. Census statistics, Environmental Protection Agency, Council data on water, air, noise and traffic and information from environmental impact statements submitted as part of planning applications.

Baseline environmental data should allow the state of the environment to be identified in objective terms. Often this will mean quantitative measures of environmental conditions, but will also include qualitative descriptions of environmental features. The data should encompass the environment as it is now, as well as the environment as it would be expected to change in the absence of the Plan (i.e. the do nothing approach) as required under the EU Directive.

2.6 Considerations of Alternatives

The SEA Directive requires that reasonable alternatives, taking into account the objectives and the geographical scope of the plan or programme are identified, described and evaluated for their likely significant effects on the environment. As part of the Enniscorthy Town Plan process a range of alternatives including the 'do-nothing' scenario were considered for the development of the Town & Environs area and are detailed in the Environmental Report. These are as follows;

Option A - Diffusion

Enniscorthy could select a strategy where population expansion would no longer be concentrated in the town itself. Instead expansion might be absorbed by surrounding villages and settlements such as Monageer, Marshalstown, Caim, Tomnalossett and others. These villages might develop as satellite communities while the existing town edge would remain essentially as it is, without pressure for further extension. There are two reasons however for not pursuing such a strategy. Firstly the existing town is still below the threshold of size above which it would support the development of internal local public transport or the development of critical mass of shops to satisfy regional needs. It is also below the threshold that allows the development of a number of higher rank central place functions. Secondly the social character and infrastructure of the surrounding villages are not ready to accept the imposition of sudden and radial population increase due to out migration from Enniscorthy.

Option B - Diffusion within Proposed By-pass Area

Another option, which Enniscorthy might pursue, is that of using the proposed bypass as an expansion limit, with long term policy of developing residential neighbourhoods against the bypass, separated by green parkland from the town edge. This would draw pressure away from the town edge and spread the existing town in a more dispersed manner enabling greater scope for the development of extensive open space within the suburbs. This proposed option of dispersal would be similar to a dispersal of the population to the outer settlements as discussed under 'Diffusion', except that here the settlements would be purpose-built within the town's environs. One disadvantage of this strategy however is the uncertain time frame for commencement and completion of the bypass and traffic congestion and associated problems that would exist in the interim. Also this strategy would put further reliance on the use of the car, as distances to town centre uses and services would be too far for walking or cycling in the absence of safe pedestrian and cycle links.

Option C - Preferred Option, Consolidation of Radial Structure

A final strategy considered is one, which might use the existing structure with its series of radials and its somewhat circular compact characteristic and refine or consolidate this structure to increase its efficiency and balance development on the east and west. Here a number of radial routes have been selected and inter-linked by proposed circulation routes on the outer edges of the town. The existing shell of the older residential areas around the centre would remain unpenetrated by major routes, maintaining a pedestrian scale of contact between the older inner suburbs and the centre. This strategy would be highly sustainable and would extend in an easily adjustable fashion the existing and recently developing structure of the town. It would represent the concept of supply-based planning.

This option incorporates relevant National & Regional & County Strategies while also providing a structures vision that will realistically accommodate continued urban growth. This scenario is

generally believed to have the lowest environmental impacts, providing that the mitigation measures proposed are adopted.

2.7 Environmental Assessment

The environmental assessments of objectives of the Town Plan are the central component of the Report. The methodology used in the Report comprised of a series of matrixes which were used to refine and focus objectives used in the Town Plan. In predicting likely significant impacts of the plan, existing data sources were used as baselines data. The development envisaged as arising as a result of the implementation of this Town & Environs Development Plan is described using Alternative Scenarios in Chapter 5.

2.8 The Environmental Report

In the Environmental Report, which was submitted to the Elected Members alongside the Draft Enniscorthy Town & Environs Development Plan 2008-2014, the likely significant effects of the plan and the alternatives were predicted and their significance evaluated with regard to the environmental baseline. The Environmental Report provides the decision makers, the Elected Members of Enniscorthy Town Council and Wexford County Council, who decided whether or not to adopt the plan, with a clear understanding of the likely environmental consequences of decisions regarding the proper land-use planning in Enniscorthy Town & Environs. Mitigation measures to prevent or reduce significant adverse effects posed by, and maximise any benefits offered by the Enniscorthy Town & Environs Development Plan and the alternatives are also presented in this report as are the measures concerning monitoring.

2.9 Making the Elected Members' Decision Public

When the Draft Enniscorthy Town & Environs Development Plan 2008-2014 was adopted a document was made public, referred to in the SEA Directive as the SEA Statement. This included information on the decision, which is required to include information on; how environmental considerations have been integrated into the Plan, highlighting the main changes to the Plan which resulted from the SEA process; how the Environmental Report and consultations have been taken into account, summarising the key issues raised in consultations and in the Environmental Report and indicating what action, if any, was taken in response, and; the reasons for choosing the Town Plan in the light of the other alternatives, identifying the other alternatives considered, commenting on their potential effects and explaining why the Town Plan was selected.

The information included in the statement, which was required to be made public, including how environmental considerations have been integrated throughout the process and how the preferred alternative was chosen introduces accountability, credibility and transparency into the strategic decision-making process.

Environmental Baseline

3.1 Introduction

Ireland's landscape and natural habitats have been shaped by thousands of years of both natural and human processes. They are a living historical record of Ireland's past and could arguably be our most important resource for the future. The quality of our environment is fundamentally linked to our well being and the health of the Irish economy. Increasing development pressures and changes in agricultural practices have resulted in the implementation of measures designed to protect natural environments and to raise public awareness as to importance of these areas.

The environmental baseline in and around Enniscorthy is described in this section. The environmental baselines and Strategic Environmental Objectives, which are outlined in Chapter 4, are used in order to identify, describe and evaluate the likely significant environmental effects of implementing the Enniscorthy Town & Environs Development Plan 2008-2014 and the alternatives and in order to determine the required monitoring measures. The environmental baselines is described in line with the legislative requirements, encompassing the following components: biodiversity, flora and fauna, population, human health, soil, water, air and climatic factors, material assets, cultural heritage, landscape and the interrelationship between these components. A description of the likely effects upon each environmental component under a do-nothing scenario, the likely evolution of the environment without the implementation of a Town Plan for Enniscorthy, is also included.

Map 1 on the following page shows the location of Enniscorthy in the context of its surrounds in County Wexford. Enniscorthy is an inland town divided in two by the River Slaney. Enniscorthy is approximately 16 miles from Wexford town.

Map 1: Enniscorthy town



3.2 Biodiversity Flora & Fauna

Designated Wildlife Sites

Certain areas near and within Enniscorthy Town are subject to a number of conservation designations. These designations are shown on Map 2 (in folder at back) and site synopses can be found in the Appendix of this document (page 73).

SACs are areas of conservation value for habitats and/or species of importance in the European Union, the designation and protection of which are internationally mandated under the Habitats Directive 1992 (92/43/EEC) enacted into Irish Law by the European Communities (Natural Habitats) Regulations 1997 (SI 94/1997) (which have been amended twice with SI 233/1998 and SI 378/2005). SACs form part of the Irish contribution to the EU Natura 2000 network, within which Member States are required to establish ecologically important sites under the EU Habitats Directive (92/43/EEC). The Directive lists priority habitats and species, which must be conserved.

Natural Heritage Areas (NHAs) are sites of national importance for their flora, fauna, geological or physiographic interest, the designation and protection of which are nationally mandated under the Wildlife (Amendment) Act 2000. Although SAC and NHA boundaries do not overlap entirely where SAC and NHA boundaries overlap the SAC designation effectively takes precedence.

- **Slaney River Valley (cSAC) Code 000781 and proposed Natural Heritage Area** - The site is a candidate SAC selected for alluvial wet woodlands, a priority habitat on Annex I of the E.U. Habitats Directive. The site is also selected as a candidate SAC for floating river vegetation, estuaries, tidal mudflats and old oak woodlands, all habitats listed on Annex I of the E.U. Habitats Directive. The site is further selected for the following species listed on Annex II of the same directive - Sea Lamprey, River Lamprey, Brook Lamprey, Freshwater Pearl Mussel, Twaite Shad, Atlantic Salmon and Otter. The presence of wet and broad-leaved woodlands increases the overall habitat diversity and the occurrence of a number of Red Data Book plant and animal species adds further importance to the Slaney River site.

Floating river vegetation is found along much of the freshwater stretches within the site. Species present here include Pond Water-crowfoot (*Ranunculus peltatus*), Water-crowfoot (*Ranunculus* spp.), Canadian Pondweed (*Elodea canadensis*), Broad-leaved Pondweed (*Potamogeton natans*), Water Milfoil (*Myriophyllum* spp.), Common Club-rush (*Scirpus lacustris*), Water-starwort (*Callitriche* spp.), Hemlock Water-dropwort, Fine-leaved Water-dropwort (*Oenanthe aquatica*), Common Duckweed (*Lemna minor*), Yellow Water-lily (*Nuphar lutea*), Unbranched Bur-reed (*Sparganium emersum*) and the moss *Fontinalis antipyretica*. Two rare aquatic plant species have been recorded in this site: Short-leaved Water-starwort (*Callitriche truncata*), a very rare, small aquatic herb found nowhere else in Ireland; and Opposite-leaved Pondweed (*Groenlandia densa*), a species that is legally protected under the Flora Protection Order, 1999.

Agriculture is the main landuse. Arable crops are important. Improved grassland and silage account for much of the remainder. The spreading of slurry and fertilizer poses a threat to the water quality of this salmonid river and to the population of Annex II animal species within it. Run-off is undoubtedly occurring, as some of the fields slope steeply directly to the river bank. In addition, cattle have access to the site in places. Fishing is a main tourist attraction along stretches of the Slaney and its tributaries and there are a number of Angler Associations, some with a number of beats.

- **Proposed Natural Heritage Area - Ballynabarny Woods Code 000746.** Enniscorthy is situated in a region of complicated geology. Alternating beds of Felstone, Greenstone and Lower Silurian rocks form a mosaic orientated in a southwest to northeasterly direction.

About 3km to the northeast of Enniscorthy, Ballynabarney Wood occupies a narrow river valley cut across these beds. Ballynabarney Wood is a secondary woodland that to a large extent has been allowed to develop naturally, and as such is a rare and valuable habitat in Ireland, Europe's least wooded country. Former felling of the larger trees has resulted in the oaks being young and all less than 12m in height. Where the river valley is steep a deciduous woodland dominated by Hazel (*Corylus avellana*) in the north and Oak (*Quercus* sp.) in the south exists. Several rare species of Myxomycete fungus have been recorded from the site, namely *Physarum bethelii*, *P. oblatum* and *Trichia lutescens*, the first-named in its only known Irish site. The clayey soil is acid in reaction and so the ground flora is restricted in variety. However the river deposits silt along its banks and a large variety of different herb species occur here.

Flora

The cSAC designation for the mid and lower reaches of the Slaney highlights the river as a very good example of the extreme upper reaches of an estuary. Tidal reedbeds with wet woodland are present in places. Good examples of wet woodland are found associated with Macmine marshes (approximately 2km downstream of Edermine Bridge), along the banks of the Slaney and its tributaries and within reed swamps. Below Enniscorthy there are several areas of woodland with a mixed canopy of oak (*Quercus* so.), beech (*Fagus sylvatica*), sycamore (*Acer pseudoplatanus*), ash (*Fraxinus excelsior*) and a good diverse ground flora.

Rare and Protected Species

Two rare aquatic plant species are also noted within the cSAC designation: short-leaved water-starwort (*Callitriche truncata*) a very rare, small aquatic herb found nowhere else in Ireland, and opposite-leaved pondweed (*Groenlandia densa*); both species are legally protected under the Flora Protection Order, 1999.

Aquatic surveys undertaken during October 2003, by the OPW for the River Slaney Drainage Scheme, Option Appraisal Report 2006, identified the presence of short-leaved water-starwort as far upstream as Bormount (approximately 0.5km downstream of the confluence of the River Boro). This species is considered an extremely rare species found only in the tidal Slaney.

Habitats

Upstream of Enniscorthy the floodplain is predominantly neutral grassland with a fringe of tall herbs and willows overhanging the river. There is also evidence of more intensive use with the presence of arable crops (olium pasture) on the right bank. Stream water crowfoot (*Ranunculus penicilatus*) is present within a riffle; this is one of the several *Ranunculus* species that comprise the 'floating river vegetation' habitat named within the cSAC designation. Just upstream of Enniscorthy is a narrow fringe of tree covered ground beneath a steep slope of mixed woodland including oak, beech and sycamore.

Immediately downstream of Enniscorthy the floodplain is again typically neutral grassland, with occasional patches of broadleaf woodland. South of the Urrin, vegetation changes from neutral grassland to wet grassland with occasional areas of riparian woodland and wet willow/alder/ash woodland. Downstream of the Boro confluence the wet grassland gives way to tall herb swamp with patches of wet willow/alder/ash woodland.

The OPW Habitat Survey also identified short-leaved water-starwort (*Callitriche truncata*) upstream of Edermine Bridge as detailed previously this is legally protected under the Flora Protection Order, 1999.

Protected Mammal Species

The cSAC designation identifies several mammal species occurring between Tullow and Ferrycarrig including otter, which is listed in Annex II of the EU Habitats Directive and several species listed in the Irish Red Data Book including pine marten (*Martes martes*), badger (*Meles meles*), Irish hare (*Lepus timidus*) and Daubenton's bat (*Myotis daubentonii*). Common frog (*Rana temporaria*), another Red Data Book species, also features within the designation.

Badger

The OPW survey work in July 2003 identified no badger activity along or immediately adjacent to the River Slaney within their study area. However it is unlikely that badgers would be present along the river within the stretch of the River Slaney through Enniscorthy since badgers typically create setts in secluded areas away from disturbance.

Otter

Otter signs were identified in the OPW survey in the grassland area north of the town centre and areas of potential habitat were identified just upstream of Enniscorthy, and upstream and downstream of the confluence with the River Boro. In addition to this, there are anecdotal sightings of otter in the urban stretches of the Slaney that suggest that the otter is fairly widespread throughout the River Slaney in the Enniscorthy area. The otter is listed in the Bern Convention and the Convention International Trade of Endangered Species (CITES) as well as being listed in Annex II of the EU Habitats Directive.

Bats

Several areas were identified as potentially supporting bats, in the OPW survey; including a group of old buildings near the mouth of the Urrin River. A riffle, which already attracts several insectivorous species including sand martins (*Riparia riparia*), was also considered to potentially support Daubenton's bat (an Irish Red Data Book species and part of the cSAC designation). All bats are afforded protection under Annex IV of the EU Habitats Directive and are also protected under the Wildlife Act, 1976, whereby it is an offence to intentionally kill, disturb, handle or keep bats without licence.

Ornithology

Upstream of Enniscorthy the left bank contains a small colony of sand martins, which are listed in the amber list (medium conservation concern) of Bird Watch Ireland's priority bird species. As the bank is of sandy material it could also support kingfisher (*Alcedo atthis*). A kingfisher was seen on the main channel at the same site and is also listed on Bird Watch Ireland's amber list of bird species. A single yellowhammer (*Emberiza citrinella*) (a red list species - of high conservation concern) was also spotted at this site.

The cSAC designation highlights important numbers of birds for the mid and lower reaches of the Slaney in winter. Little egret (*Egretta garzetta*) are found annually along the river. This bird is only now beginning to gain a foothold in Ireland and the south-east appears to be its stronghold. Nationally important numbers of black-tailed godwit (*Limosa limosa*), teal (*Anas crecca*), tufted duck (*Aythya fuligula*), mute swan (*Cygnus olor*), little grebe (*Tachybaptus ruficollis*) and black-headed gull (*Larus ridibundus*) are found along the estuarine stretch of the river.

The reed warbler (*Acrocephalus scirpaceus*), which is a scarce breeding species in Ireland, is regularly found in Macmine Marshes (approximately 2km south of Edermine Bridge) but it is not known whether or not it breeds along the Slaney. Dipper (*Cinclus cinclus*) also occurs on the river and is a declining species.

Fish

The Slaney is an important spring salmon (*Salmo salar*) fishery with large numbers of multi sea winter (msw) fish returning from the sea between February and April. The majority of these fish swim upstream to spawning grounds in the headwaters, where spawning takes place in early winter. After hatching, the juvenile fish remain within the gravel for up to six weeks; between 1 and 4 years old (usually 2 years) the fish are ready to migrate to sea as smolts and run to sea between April and June. All the above life stages of salmon would be present within the Enniscorthy area, where potential spawning grounds occur both above and below Enniscorthy Bridge. A later summer run of mainly 1 sea winter salmon (1sw) also return between June and August.

The Slaney is also an important sea trout (*Salmo trutta*) fishery with large numbers returning to the Slaney, Boro and Urrin Rivers from mid June to August. These fish swim upstream to spawning grounds where spawning occurs in early winter. After hatching, the juvenile fish remain within the gravel for up to six weeks; between 1 and 4 years old (usually 2 years) the fish are ready to migrate to sea as smolts and run to sea between April and June.

Brown trout (*Salmo trutta*) are also found throughout the catchment and are present through much of the study area. Brown trout are a purely freshwater species but will follow the spawning and life stages as sea trout. All stages of the life cycle of sea trout and brown trout are present within the Enniscorthy area. Lampreys are also considered to spawn within the study area.

Existing Environmental Problems

- **Designated Wildlife Sites** - The Water Quality Status of the River Slaney catchment in Enniscorthy and the possibility of future pollution may significantly impact upon the biodiversity, flora and fauna of the Slaney River Valley (SAC) & (pNHA) & Ballynabarny (pNHA). Increased development pressures as a result of the growth of Enniscorthy Town & Environs may also impact upon the designated wildlife sites, significantly adversely impacting upon the ecological connectivity between these sites.
- **Terrestrial Biodiversity, Flora and Fauna** - All habitats in Enniscorthy have been impacted upon to varying degrees by human beings over time. The clearing of vegetation from Enniscorthy's land centuries ago resulted in the replacement of natural habitats with semi-natural, low biodiversity habitats. This replacement was accentuated with the intensification of agriculture in the 20th century.
- **Aquatic Biodiversity, Flora & Fauna** - The water quality status of the Slaney is likely to impact upon aquatic biodiversity, flora & fauna to the extent whether fish populations or macro-invertebrates can be supported as they are not tolerant to serious pollution.
- **Ecological Networks** - Buffer zones around a number of streams have not been uniformly maintained, which provide essential linkages and ensure ecological connectivity between all habitats, including designated wildlife sites.

Evolution of Biodiversity, Flora & Fauna in the absence of a Town & Environs Plan

- **Designated Wildlife Sites** - In the absence of implementation of a Town & Environs Plan housing development would be likely to continue to the west of Enniscorthy and to the east on the edges of the SAC and NHA. The effects of wastewater generated as a result of future developments could, if not mitigated against, deteriorate the quality of the surface and ground waters within these designated sites and adversely impact upon biodiversity, flora & fauna.

Also one-off housing development on the edges of the designated wildlife sites has the potential to cumulatively reduce the ecological connectivity between the sites and surrounding terrestrial habitats. Further adverse impacts on the ecological connectivity of designated wildlife sites would be likely to continue with housing developments likely to surround the edges of the sites which are located between Clonhaston & Ballynabarny.

- **Terrestrial Biodiversity, Flora & Fauna** - In the absence of implementation of a Town & Environs Plan for Enniscorthy, terrestrial biodiversity, flora & fauna would be likely to continue to be adversely impacted upon by the water quality status of the Slaney and other tributaries or catchments may be polluted. Ecological connectivity within Enniscorthy and its surrounds would be likely to continue to be adversely impacted upon by development along the various linking streams which does not take cognizance of appropriate buffers.
- **Ecological Networks** - In the absence of implementation of a Town & Environs Plan, development would be likely to continue as it has done in the past thereby further adversely impacting upon ecological networks as a result of the loss of ecological corridors such as hedgerows, stone walls and buffer zones along streams as well as the loss of lengths of streams as a result of channeling and ponding.
- **Aquatic Biodiversity, Flora & Fauna** - In the absence of implementation of a Town & Environs Plan, pollution of surface waters would be possible which would reduce the biodiversity levels in Enniscorthy's surface waters.

3.3 Population & Human Health

Population

The town of Enniscorthy covers Enniscorthy Urban District and Enniscorthy Rural Electoral District and includes the following townlands, Greenville, Moyne Upper, Moyne Lower, Blackstoops, Kilcannon, Templeshannon, Clonhaston, Kilagoley, Drumgold, Shingaun, Lyre, Scarawalsh and Enniscorthy. The 2002 Census showed a population of 8964 including town and suburbs. The results of the 2002 census indicated a population of 6,058 in Enniscorthy Town, an increase of 14.2% since 1996. This increase coincides with a period of unprecedented economic growth in Ireland and although Enniscorthy has not shared in this growth as extensively as other areas, there is evidence of a migration of Dublin based workers to the town to purchase affordable housing and to have a better quality of life.

Demographic and Socio-economic analysis

The population of Enniscorthy Town has decreased by 13.9% since 2002, while the environs have increased by 21.1% reflecting the trend of movement out of the inner urban areas to the environs and outskirts of towns.

Population of Towns with legally defined boundaries¹ 2006

Towns	2006	2002	Change 2002-2006	% Increase
Enniscorthy Town	3,241	3,764	-523	-13.9%
Environs of Enniscorthy	6,297	5,200	1,097	21.1%
Total Enniscorthy Town & Environs	9,538	8,964	574	6.4%

Source: CSO 2006

¹ In conformity with United Nations recommendations, the Environs of an area is defined as the continuation of a distinct population cluster outside its legally defined boundary in which no occupied dwelling is more than 200 metres distant from the nearest occupied dwelling. In applying this limit, industrial, commercial and recreational buildings and facilities are not regarded as breaking the continuity of a built up area (CSO 2006)

Population Projections

The population of Enniscorthy Town is projected to increase over the next 5 years to a population of 13,520. Considering existing planning information combined with the projected increases as outlined in the County Development Plan 2007-2013, the amount of zoned and serviced lands, combined with other related economic effects such as the bypass of the National Route N11 at Gorey and the beginning of the Iarnród Éireann commuter service between Dublin and Gorey, will all serve to increase the population of the town and environs. The following Population Projection model has been conducted by the Department of Economics, UCD.

	2006	2011	2016
Enniscorthy Town and Environs	9,538	13,520	15,718

Source: (UCD) 2007

Households and Family Units

Enniscorthy Town has 3,496 households and 2,485 Family Units. The largest proportion of family units in Enniscorthy are composed of Husband and Wife (or couple) and children (44%), although this is proportionally less than the State at 53.2% of Family units. 23.5% of Family units within the town are composed of a Lone mother and children, compared to 15.4% of the State.

Households and Family Units 2006

	Total Households	Total Family Units	Husband and wife (or couple) without children	Husband and wife (or couple) with children	Lone Mother with children	Lone Father with children
Enniscorthy Town	3,496	2,485	739 (29.7%)	1,093 (44%)	585 (23.5%)	68 (2.7%)
State	1,462,296	1,053,180	303,554 (28.8%)	560,386 (53.2%)	162,551 (15.4%)	26,689 (2.5%)

Source: CSO 2006

Age profile

While Co. Wexford has an above average youth population with 22.2% of the population under 14 years, Enniscorthy has a similar age profile to the State except for the population over 65 years. 12.9% of the population of the town are over 65 years while, 11% of the State are over 65 years and 11.6% of the county are over 65 years. The age dependency ratio for Enniscorthy in 2006 is 49.6%, compared to 45.8% for the State and 51.1% of the County.

Age Profile of Co. Wexford Towns 2006

Age	0-14 years	15-24 years	25-44 years	45-64 years	65 years and over	Total
Enniscorthy	1,940	1,468	2,991	1,913	1,226	9,538
Co. Wexford	29,238	17,530	39,919	29,738	15,324	131,749
State	864,449	632,732	1,345,873	928,868	467,926	4,239,848

Source: CSO 2006

Age Profile of Enniscorthy, Co. Wexford and State 2006 - %

Age	0-14 years	15-24 years	25-44 years	45-64 years	65 years and over	Total
Enniscorthy	20.3%	15.4%	31.4%	20.1%	12.9%	100.0%
Co. Wexford	22.2%	13.3%	30.3%	22.6%	11.6%	100.0%
State	20.4%	14.9%	31.7%	21.9%	11.0%	100.0%

Source: CSO 2006

Human Health

Human health can be impacted upon by the lack of provision of community facilities, amenities and infrastructure to support new development in Enniscorthy. A shortfall in amenities and infrastructure to serve the local community, including safe walking and cycling routes, playgrounds, amenity park, and new primary school can all go towards decreasing the perceived health of the general population of Enniscorthy. Human health can also be affected by employment status and access to education.

Live Register

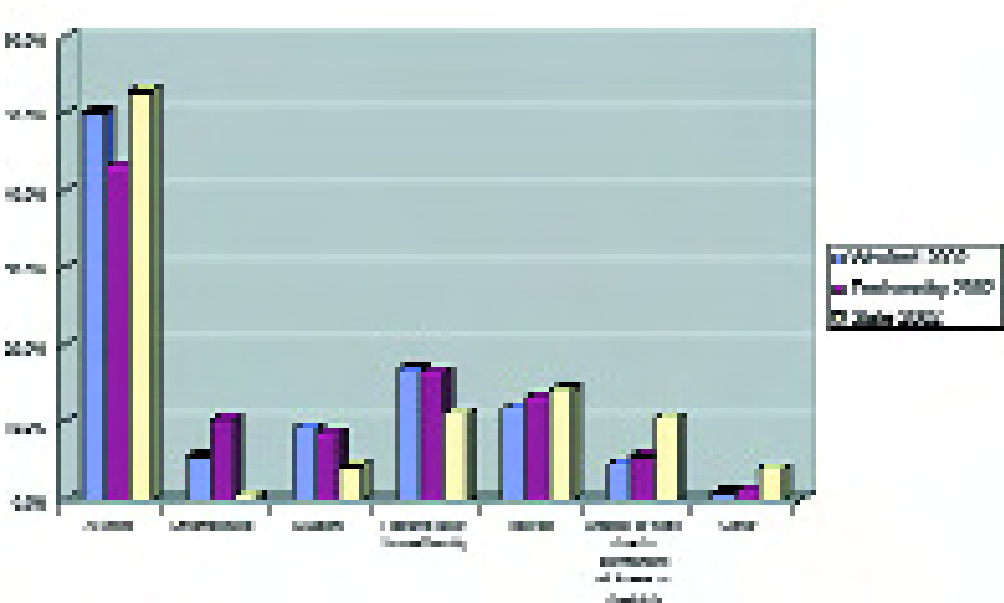
The number of persons on the Live register in Enniscorthy has increased in the past year from 1,688 to 1,713, this is marginally lower than the previous month of April 2007.

	May 2006	April 2007	May 2007	
Enniscorthy	1,688	1,721	1,713	1.48% increase
Co. Wexford	6,420	6,587	6,440	.3% increase

Source: CSO 2006

In 2002, Enniscorthy Urban DED was considered an ‘Unemployment Black spot’ with 20.5% of the population unemployed.

Principal Economic Status



Principal Economic Status 2002

	At work	Unemployed	Student	Looking after home/family	Retired	Unable to work due to permanent sickness or disability	Other	Total
Co. Wexford 2002	45,249 (50.2%)	5,282 (5.9%)	8,377 (9.3%)	15,312 (17.0%)	10,690 (11.9%)	4,129 (4.6%)	1,042 (1.2%)	90,081
Enniscorthy 2002	3,040 (43.3%)	731 (10.4%)	616 (8.8%)	1,177 (16.8%)	945 (13.5%)	416 (5.9%)	97 (1.4%)	7,022
State 2002	1,641,587 (53.1%)	159,346 (5.2%)	350,774 (11.4%)	438,986 (14.2%)	130,255 (10.8%)	130,255 (4.2%)	35,572 (1.1%)	3,089,775

The above chart and table show the Principal Economic Status of the County, State and Enniscorthy Town in 2002. Almost 10% less of the population of Enniscorthy are at work in comparison to the State at 43.3% also lower than the County at 50.2%. 10.4% of the population are unemployed and 13.5% are retired, compared to 10.8% nationally and 11.9% in the county.

Population at work aged 15 years and over in County Wexford towns by distance travelled to work, 2002

Town	0 miles	1 miles	2 miles	3 to 4 miles	5 to 9 miles	10 to 14 miles	15 to 29 miles	30 miles and over	Not stated
Wexford	2.4%	38.7%	15.7%	8.4%	5.5%	5.2%	5.6%	5.5%	13.1%
Enniscorthy	3.4%	34.4%	12.2%	5.4%	4.7%	9.4%	10.4%	8.8%	11.4%
New Ross	2.9%	33.3%	9.0%	3.1%	3.3%	6.2%	23.4%	6.5%	12.4%
Gorey	3.1%	32.3%	5.7%	4.0%	6.0%	9.7%	8.6%	17.4%	13.2%

Existing Environmental Problems

The provision of community facilities, amenities and infrastructure to support new developments within and surrounding the town centre has been slower and has struggled to keep up with the pace at which development is happening particularly on the eastern side of the town. There is a necessity to provide for the proper residential and associated infrastructural development of Enniscorthy and this can be done through the Town & Environs Plan.

Human health has the potential to be adversely impacted upon by the pollution of the River Slaney as a result of inappropriately treated sewage or agricultural effluent within the larger river catchment.

Evolution of Population and Human Health in the absence of the Town & Environs Development Plan

In the absence of a Town & Environs Plan for Enniscorthy, there would be a continued demand for housing in Enniscorthy which would be likely to be satisfied in a piecemeal fashion with the location of developments determined by individual applications with no specific guidance for Enniscorthy as to where development should take place. This would be likely to lead to an increase in unsustainable one-off linear type development leading to problems relating to infrastructure provision of wide areas and to more significant environmental impacts such as those relating to biodiversity, flora, fauna, and surface water quality.

The prohibitive cost of securing land in the area for community facilities and amenities would be likely to remain thus preventing community gain.

Human health would also be likely to be affected through contact with potentially polluted streams and river in the absence of a Town & Environs Plan for Enniscorthy which would provide some environmental controls.

3.4 Soil

Soil can be considered as a non-renewable natural resource because it develops over very long timescales. To date, there is no legislation which is specific to the protection of soil resources however an EU Directive on soil is currently proposed which will set out common principles for protecting soils across the EU. Soil is encompassed in both the description of the environment in the SEA Directive to which this report relates and in the EIA Directive. The protection of other resources such as water under the Water Framework Directive has positive implications for soil, the quality of which is directly linked to that of ground and surface waters.

The Irish Geological Survey map for Carlow - Wexford (sheet 19) shows that the geology of the area around Enniscorthy generally comprises rocks of Lower Palaeozoic age, dating from the Ordovician period between 525 million and 440 million years ago. There is one site at Greenville townland that was recommended as a proposed Natural Heritage Area (NHA) on account of its potential value as a source of Precambrian to Devonian age palaeontology. The site lies 1km north of Enniscorthy.

Geology

The Leinster Chain, with its granite core and margin of mica-schist, bounds the county on the west. From this, Silurian ground stretches to the sea, like a platform with a hummocky surface, numerous intrusive and contemporaneous felsitic lavas, and some diorites occurring along the strike in continuation of the Waterford series. A granite outlier rises south-east of Enniscorthy; and granite, in part gneissic, forms Carnsore Pt. From near Courtown to Bannow Bay, greenish slates like the Oldhamian series of Wicklow form a broad band, with Old Red Sandstone and Carboniferous Limestone above them near Wexford. Silurian beds appear again towards Carnsore. The surface of the county is much modified by glacial drift, and by the presence of sands and gravels of preGlacial and possibly late Pliocene age. These interesting beds are used for liming the fields, under the name of "manure gravels," on account of the fossil shells that they contain.

Existing Environmental Problems

Existing environmental problems relating to soil include the building upon and thereby sealing off of, soil altogether with pollution and contamination of soil as a result of likely surface and ground water pollution.

Evolution of Soil in the absence of a Town & Environs Plan

In the absence of implementation of Enniscorthy Town Plan soil would be sealed off in line with development and the quality of soil would depend on the quality of surface and ground water.

3.5 Water

Hydrology

The Boro, Urrin and Bann rivers are the principal tributaries of the Slaney in relation to the Study Area. The River Urrin and River Boro both drain the eastern flanks of the Blackstairs Mountains (approximately 18km west of Enniscorthy (and discharge into the River Slaney 1km and 4km downstream of Enniscorthy respectively. The River Bann drains an area north of Enniscorthy and discharges into the Slaney 6km north of Enniscorthy. The Slaney is tidal to Enniscorthy, with the tidal and freshwater boundary defined, under section 10 of the Fisheries (Consolidation) Act 1959, as the Old Bridge in Enniscorthy.

Hydrogeology

Groundwater is stored in the void spaces in underground layers of rock, or aquifers. These aquifers are permeable allowing both the infiltration of water from the soils above them and the yielding of water to surface and coastal waters.

The Geological Survey of Ireland rates the aquifers of Ireland according to their productivity and their vulnerability to pollution.

The Aquifer Map of Ireland produced by the Geological Survey of Ireland classifies the slates of the Oatlands and Ballyhogue Formations, to the south east and north west of Enniscorthy as 'Poor/Minor Aquifers' which are only locally productive. However the volcanic rocks of the Campile Formation around Enniscorthy are classified as a 'Major Aquifer'.

Edermine - Ground Water Quality

Name	Edermine
Location	Wexford
Maximum Faecal Coliform Count (2004 to 2006)	0
Average NO3 conc, mg per litre (2004 to 2006)	38.0787493569
The EPA national groundwater-monitoring network includes sampling at some locations that are used for the abstraction of drinking water. The presence of faecal coliforms provides an indication that disease causing pathogens may be present: presence of a single faecal coliform in a water supply is a breach of the Drinking Water Regulations and is therefore unacceptable. The presence of high nitrates in groundwater may contribute to eutrophication in surface waters.	

Water Quality

The water quality of the Slaney is considered to be in satisfactory condition in reaches upstream of Tullow, which have biological quality ratings (Q values) typically around 4-5 and 5, which are classified as unpolluted. Downstream, towards Enniscorthy, there is an indication of increased ecological stress (excessive algal growths and heavy siltation) particularly in the reach immediately below Tullow and again at Kilcarr, Clohamon and Ballycarney (EPA 2001). In these reaches, Q values recorded between 3 and 3-4 are typical which are classed as slightly to moderately polluted.

Name	River Station Code	Q Value		Location	RBD
		2001	2004		
Bann	12B011000	3-4	3-4	Bann Br	SERBD
Tinnacross	12T010600	4	4	Br u/s Solsborough Br	SERBD
Slaney	12S022220	4	4	Just W of Solsborough	SERBD
Corbally	12C040900	4	3-4	Br u/s Slaney R confl	SERBD
	12C040600	3-4	4-5	Cooladine Br	SERBD
Urin	12U010360	4-5	-	Verona Br	SERBD
	12U010500	3-4	3-4	John's Br	SERBD

Source: EPA River Water Quality in Co Wexford - 2006

The high flows of 1998 have been of considerable benefit to the Slaney. This is particularly apparent below Tullow and Clohamon where the estimated length of slightly polluted channel has been reduced to five and thirteen kilometers, respectively. This is in marked contrast to the 1995 situation when the entire 49 kilometer freshwater reach from Tullow to below Enniscorthy was assessed as slightly polluted/eutrophic. The upper Tinnacross Stream was devoid of sensitive species, was very heavily silted and had a significantly reduced DO content in early September 1998. It then recovered over the next 7km to reach a satisfactory level of quality at station 0600.

The Slaney Estuary from the Enniscorthy Railway Bridge was designated as a sensitive area in June 2001 under the Urban Waste Water Treatment Regulations 1994, for additional protection with a requirement for tertiary treatment for waste water discharges.

Abstractions & Discharges

There is one abstraction licence issued for this stretch of the Slaney for Wexford County Council at Clonhaston, and one active discharge consent for Roadstone Provinces for treated effluent resulting from the washing of chippings, washing down of trucks and machines etc.

Navigation

The River Slaney is navigable up to Enniscorthy and has in the past been a busy waterway. However at low tide and during periods of low flow it is essentially non-navigable.

Existing Environmental Problems

- **Surface Water** - The River Slaney
- **Ground Water** - There is a gap relating to the availability of data on groundwater quality in the Enniscorthy area. Since groundwater moved slowly through the subsurface, the impact of anthropogenic activities may last for a relatively long time, which means that pollution that occurred some decades ago, whether from agriculture, industry or other human activities, may still be threatening groundwater quality today. Secondly since surface water systems receive a continuous discharge of inflowing groundwater, a deteriorated groundwater quality will ultimately be reflected in the quality of surface waters. Finally groundwater is a 'hidden resource' which is quantitatively much more significant than surface water and for which pollution prevention and quality monitoring and restoration are even more difficult than for surface waters mostly due to its inaccessibility. Recent reports show that pollution from domestic, agriculture and industrial sources is, despite progress in some fields, still a major concern, whether directly through discharges (effluents) or indirectly from the spreading of nitrogen fertilizers and pesticides.

3.6 Flooding & Climate Change

Environmental Baseline data relating to flooding has been obtained from the Office of Public Works reports. Multiple recurring flood points are identified in and around Enniscorthy. The surprising depths of flooding are in part due to the lack of floodplains at Enniscorthy. The high ground to the west is part of the foothills of the Blackstairs Mountains and the eastern part of the town is partially built on Vinegar Hill. The depth of floodplain is also due to the lack of substantial floodplain throughout most of the catchment. Generally, the floodplains of the Slaney and its tributaries are not wide enough and end abruptly in steep sided escarpments and hills, the majority of large Irish rivers do not share this condition. This means that a flood only has a small area to flood out to so the flood peak is not attenuated (reduced in size) to the same degree as is common in this country.

Historical Flooding dates

There were four major floods recorded in Enniscorthy Town in the 20th Century, these occurred in 1924, 1947, 1965 and Nov. 2000. The 1965 Flood was the largest; relative to the Nov. 2000 flood it produced levels about 1.25m higher upstream of Enniscorthy Bridge and about 0.9m higher downstream of the Seamus Rafter Bridge. However there is insufficient information to establish the hierarchal order of these floods as no systematic survey took place. For the 1924, 1947 and 1965 floods, information is limited to photographic evidence and a number of levels from 1965 that were noted and remembered by property owners.

The November 2000 flood caused considerable damage with many properties over one meter deep in water. In many cases properties did not flood from the river adjacent to them, instead, their flooding resulted from waters exiting the river at a point further upstream and moving overland to them.

The November 1965 flood was the worst in living memory. It was larger than the 1947 and 2000 floods, the one photograph of the 1924 flood suggests that the 1965 flood was also larger than it, present information shows it to be the largest in the century. An adjustment can be made to the profile of the 1965 Flood that takes reasonable account of the new bridge. Using this it is possible to estimate that over 180 properties would be damaged if a flood of similar magnitude occurred today i.e. about 70 properties more than were damaged in 2000.

Existing Environmental Problems

At present flooding may be expected, on average, every 15 years though with Climate Change this becomes once in 7 years. At present when flooding does occur a number of residential properties and commercial properties are severely damaged. The problem is that a number of these are quite old buildings with terraced residential streets of protected structure in the historic town centre core. Any of the newer buildings have been designed to withstand the highest known flood levels. The problem is with climate change and sea level rise and the tidal nature of the river the historic flood levels may be exceeded.

Evolution of Flooding in the Absence of a Town & Environs Plan

Present conditions in the southeast of Ireland would be significantly impacted if the expected 2050 Climate Change Scenario actually occurs. The frequency of flooding within Enniscorthy will increase from about once in 15 years to once in 7 years. There would also be an increased likelihood of very severe events. This implies a corresponding increase in both the frequency and magnitude of extreme flow velocities both within the river and along the flood plain.

3.7 Air & Climatic Factors

There is now a scientific consensus that global warming is happening, that it is directly related to man-made greenhouse gas emissions, and that we have little time remaining to stabilise and

reduce these emissions if we are to avoid devastating impacts on our environment. There is also an economic consensus that the costs of inaction will greatly outweigh the costs of action. In relation to Enniscorthy the Council is responsible for certain local regulation and monitoring for such concerns and for enforcement of air quality under the Air Pollution Act. The Environmental Protection Agency (EPA) is also responsible for control of the more significant potential polluting activities on a national basis.

Existing Environmental Problems

Air Quality in Enniscorthy is adversely affected by smoke producing fuels and traffic fumes. Traffic congestion is becoming a major problem within the town centre due to a large majority of individuals who live in Enniscorthy, commuting to work. High levels of traffic such as this generate noise and emissions, which creates a harsh sensory environment for pedestrians and the people residing within the town itself. The proposed Enniscorthy bypass is likely to reduce traffic levels, associated emissions and noise levels with the town. However Enniscorthy faces another problem in relation to flooding and traffic flows within the town. Due to recent climate change, rising sea levels have played a significant role in Enniscorthy’s flooding problems.

Evolution of air and climatic Factors in the Absence of Town & Environs Plan

As the Proposed Enniscorthy Bypass is unlikely to be complete for the next 5 to 10 years it is important for the above concerns to be addressed in the new Town & Environs Plan. In the near future it is likely that traffic congestion within the town is going to greatly increase as the new Gorey Bypass has recently been opened. This will attract a large number of people to commute via car to work in Dublin as their travel time will now be greatly decreased. The implementation of the Town and Environs Plan for Enniscorthy could examine ways of reducing this congestion and also seek to minimise noise by ensuring that the design of future developments incorporate measures to prevent or mitigate the transmission of noise and vibration, where appropriate.

3.8 Material Assets

Waste Water

The vast majority of the Town is served by public sewer which transports wastewater to the town Waste Water Treatment Plant located south of the town on the western side of the Slaney on St. Johns Road. The Enniscorthy area has experienced a compound growth of 2.5% per annum between 1996 and 2002, and the 2006 loading on the plant is calculated to be 15,049 PE.

The proposed WWTP will incorporate secondary treatment and tertiary treatment (phosphate and nitrogen removal) to achieve a high removal efficiency of biodegradable organic matter. The resulting effluent will comply with the EU Urban Waste Water Treatment Directive. The treated effluent is to be discharged at the existing WWTP outfall location. The outfall will be designed so that discharge velocities will be no greater than under current discharge conditions. The projected total PE for 2035 as set out in the Preliminary Report is 30,000. To ensure the maintenance of the quality of life for the residents of Enniscorthy, the capacity of the WWTP must be expanded to cater for the present population and the anticipated growth in population and business in the town to 2035.

Existing Environmental Problems

In a “do nothing” scenario, the hydraulic overload will increase resulting in increased volumes of untreated sewage entering the River Slaney as the existing treatment plant will not be able to cater for future loads. The option not to extend the Enniscorthy WWTP would result in deterioration in the water quality of the River Slaney. It could also result in a contravention of the EU Council Directive (91/271/EEC) concerning urban wastewater treatment incorporated into Irish Law under SI 419 of 1994.

It is considered that the proposed development will have a positive effect on water quality in the area. The installation of the proposed WWTP and associated works for Enniscorthy town and environs will significantly improve water quality in the receiving waters in the River Slaney and Urrin Stream, and will eliminate a number of other outfalls to the river (e.g. at Killagoley).

Evolution of Material Assets in Absence of a Town & Environs Plan

In the absence of a Town & Environs Plan for Enniscorthy, there would be a continued demand for development and housing in Enniscorthy which would be likely to be satisfied in a piecemeal fashion with the location of developments determined by individual applications with no specific guidance for Enniscorthy as to where development should take place. This would be likely to lead to increase in unsustainable one-off linear type development leading to problems relating to infrastructure provision within wide areas and more significant environmental impacts such as those relating to biodiversity, flora, fauna, and surface water quality. The hydraulic overload would increase resulting in increased volumes of untreated sewage entering the River Slaney as the existing treatment plant will not be able to cater for future loads. The option not to extend the Enniscorthy WWTP would result in deterioration in the water quality of the River Slaney.

3.9 Cultural Heritage

Introduction

County Wexford has a distinctive and valuable architectural heritage. The historic buildings contribute to the distinctive character of settlements and of the rural landscape. It is important to ensure that Enniscorthy retains its built heritage and that the architectural and historical character of the town and the quality of its townscape is preserved. Under the Local Government (Planning and Development) Act, 1999, the protection of these structures of special architectural, historical and archaeological heritage is fundamental under specific legislation.

Archeological Heritage

The National Monuments Acts 1930-2004 provide for the protection of the Archaeological heritage in Enniscorthy. Archaeological heritage is a unique and special resource and needs to be conserved sensibly. Areas of Archaeological potential are designated under the record of monuments and places (RMP) which was established under Section 12 of the National Monuments Act 1994. Monuments are any artificial or partly artificial building, structure, or erection. Monuments protected under the Act include prehistoric monuments and any monuments and place associated with commercial, cultural, economic, industrial, military, religious or social history.

Under the record of monuments and places, Enniscorthy town itself (Monument No. WX020-031) is recognized as a major Archaeological site.

Architectural Heritage

Enniscorthy has a wealth of buildings that are listed for preservation. The record of protected structures (RPS) included in the Wexford County Council's Development Plan are legislated for under section 51 of the Planning and Development Act 2000 and include structures which form part of the architectural heritage and which are of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest. Such features are listed for protection in Appendix 1 of the Enniscorthy Town and Environs Development Plan. The listing includes the items specified e.g. facade, elevation, shopfront etc. and where no such specification is made the listing shall include the whole envelope of the buildings/structures listed. In the new development plan there are a total of 86 existing protected structures which were completed by the NIAH. There are 28 additions in which the NIAH believe should be also be protected and are included in the new plan.

There are three entries in the Enniscorthy region which are included in the County Development Plan. These include Maryville house (RPS No. WCC0301), Knock Haven House (RPS No. WCC0302) and Saint John's Manor (RPS No. WCC0713).

A significant architectural feature in Enniscorthy is its original shopfronts. The so-called "Enniscorthy shopfront" has been recognised as a characteristic particular to the town and is identified by the series of elliptical-headed or round-headed openings, or a combination thereof, defining the commercial frontispiece of a property at street level. In some instances, such as 19-20 Market Square (1844), the shopfronts display a refined construction in a silver-grey granite while further frontages, such as in Mary Street (1790) or 3 Court Street (c.1800) exhibit a simple rendered finish. Although many examples have been lost over time, with the earliest documented redevelopment taking place with the introduction of the Munster and Leinster Bank (between 1905-31) in Market Square, the outlines of further "Enniscorthy shopfronts" remain discernible behind modern frontages such as at the Ulster Bank (c.1900 possibly with pre-1840) in Rafter Street, thereby ensuring the survival of some of this valuable and unique heritage.



The Slaney

The river Slaney, flowing diagonally from northwest to southeast across Wexford and dividing it into two parts, has played a vital role in the history of the county. With the coming of Christianity a number of monastic centres were established on the Slaney. As the spires of Enniscorthy appear in the distance the imposing St. Senans Hospital can be seen on the east bank. On the west bank the Urrin River joins the Slaney just above St. Johns house, built on a medieval monastic site. The milling industry on the Urrin continues a centuries old tradition. The town of Enniscorthy with its two bridges grew up around the castle built by de Prendergast about the year 1240 on a rock over looking the Slaney. In 1595 Enniscorthy was granted to Sir Henry Wallop and the castle was subsequently restored by the Wallop family. It now houses the County Museum. The 1798 centre just up from the river tells the story of the rebellion in Co. Wexford and surrounding counties. Enniscorthy Cathedral was built in the 1840s by A. W. Pugin the greatest local example of his work.

This brief historical introduction should help to focus attention on the numerous interesting features to be observed while traveling along the Slaney.

Existing Environmental Problems

Future development of the town could result in a change of Enniscorthy's well known historical character. The Plan for Enniscorthy should include a town Design Strategy in order to maintain its original features. Development guidelines should also be included in the Plan to promote development which is in keeping with the historical nature of Enniscorthy. These guidelines and designs should harmonize Enniscorthy's Architectural and Archaeological Protection Legislation. The protection zone around Vinegar Hill is also of vital importance as it is coming under increasing development pressure, and it should be protected from encroaching inappropriate developments.

Evolution of Cultural Heritage in the Absence of the Plan

In the Absence of a Town & Environs Plan for Enniscorthy, the evolution of the cultural heritage in the town would be at severe risk. If a plan is not put into action any future development in the town could damage and interfere with Enniscorthy's original features and townscape.

3.10 Landscape

Landscapes are areas which are perceived by people and are made up of a number of layers, landform, which results from geological and geomorphologic history, landcover, which includes vegetation, water, human settlements and human values which are the result of historical, cultural religious and other understandings and interactions with landform and landcover. For the purposes of this report the landscape in Enniscorthy includes the River Slaney, Corbally Stream and the Urrin, Vinegar Hill to the East and the lands to West bounded by the Urrin and its tributaries.

Landscapes of Special Sensitivity

The river landscape of the Slaney is subject to a number of wildlife designations, including being an SAC and pNHA. There is also the Ballynabarny pNHA located to the northeastern boundary of the plan constraint zone.

Landscape of High Visual Sensitivity

Vinegar Hill is one of the main assets of Enniscorthy providing extensive views of Enniscorthy and the Slaney. It is of high sensitivity due to its exposed, elevated nature and its visibility from a large surrounding area. The very topographical nature of Enniscorthy, with the river valley and steep sloping east and western sides of the river valley within the historic town centre core make for a landscape of High Visual Sensitivity.

Landscapes of Moderate Sensitivity

To the west the lands from the Moyne, Greenville, Milehouse and Cherryorchard are somewhat located on relatively level land in comparison to the remainder of the town. A dense network of housing estates, roads, schools and commercial buildings and the plateau nature of the topography deems this landscape of Moderate Sensitivity.

Scenic Areas, Protected Views

The town of Enniscorthy and its surrounding environs has a number of views, which contribute considerably to the unique character of the historic town. It is important as the town is developed that certain important views and vistas be first of all protected and secondly enhanced where possible. Inevitably as towns within Ireland develop they change and certain buildings within a streetscape are lost. Enniscorthy is in the unique position of having retained most of its original streetscape. This is one of the towns' greatest assets.

Existing Environmental Problems

The view of Vinegar Hill has been somewhat compromised in the last 100 years with the construction of terraces of social housing back in the first half of the 1900s. There have been a few one off developments in more recent years, which could be considered as detracting from the character of the Vinegar Hill landscape. The existence of a telecommunications mast on Vinegar Hill also detracts from this very Sensitive Historical Landscape.

Evolution of Landscape in the Absence of the Town & Environs Plan

Developments would be likely to locate as close as possible to the elevated Vinegar Hill to avail of panoramic views of the town and would cumulatively and adversely significantly impact upon this special landscape of high sensitivity. Town centre development which runs parallel to the river would be likely to negatively impact upon the character of the town and riverscape views.

Development of Strategic Environmental Objectives

Strategic Environmental Objectives (SEOs) are methodological measures against which the environmental effects of the Town & Environs Development Plan can be tested. If complied with in full, SEOs would result in an environmentally neutral impact from implementation of the plan. The SEOs are set out under a range of topics and are used as standards against which the development strategies, policies and objectives of the Town & Environs Plan can be evaluated in order to help identify areas in which significant adverse impacts are likely to occur, if unmitigated.

SEOs are distinct from the objectives of the Town & Environs Plan, although they will often overlap and are developed from international, national and county policies which generally govern environmental protection objectives. Such policy includes that of various European Directives which have been transposed into Irish law, relevant other Irish environmental legislation and County Policy taken from the Wexford County Development Plan, all of which are intended to be implemented at the local level in Enniscorthy.

The SEA Directive requires that the evaluation of plans be focused upon the relevant aspects of the environmental characteristics of areas likely to be significantly affected. Most attention has been given to environmental components which are likely to be impacted as a result of implementation of the Town & Environs Plan. A number of SEOs are linked to indicators which facilitate the monitoring of the Town & Environs Plan as well as to targets which the Town & Environs Plan can help work towards. The primary source used in formulating the SEOs was Table 4B of the SEA Guidelines (DEHLG, 2004). This list has been amended to give affect to objectives that are considered relevant to this Town & Environs Plan. The use of SEOs, although not a statutory requirement, does fulfil obligations set out in Schedule 2B of the Planning and Development (Strategic Environmental Assessment) Regulations 2004 (SI No. 436 of 2004).

4.1 Biodiversity, Flora & Fauna

SACs are designated and protected under the Habitats Directive 1992 (92/43/EEC) transposed into Irish law by the European Communities (Natural Habitats) Regulations 1997 (SI 94/1997) (which have been amended twice with SI 233/1998 and SI 378/2005). NHAs are designated and protected under the Wildlife (Amendment) Act 2000.

The habitats and species occurring in SACs are protected from effects of development occurring outside their boundaries under Section 18 'Prohibition or works on lands outside a European Site' of the European Communities (Natural Habitats) Regulations 1997. The Regulations require that where a development is proposed to be carried out, on any land that is not within a protected site and is liable to have an adverse impact on the protected site in question, including direct, cumulative and indirect impacts, an appropriate assessment of the proposed development on the site is undertaken. Depending on the conclusions of that assessment such development may be refused planning permission.

Policies of Enniscorthy Town & Environs Development Plan 2008-2014
Section 9.3 - relating to Biodiversity, Flora & Fauna include;

Goal - To conserve and protect the built, natural, archaeological and cultural heritage of Enniscorthy and to afford identified sites, species, monuments, artefacts and particular areas relevant statutory protection. The joint Councils will aim to strike a reasonable balance between conservation and development objectives in the interests of the proper planning and sustainable development of Enniscorthy.

- NH 1 To ensure that appropriate measures for conservation and enhancement of the natural and built environment are incorporated into all relevant plans and programmes of Enniscorthy Town Council & Wexford County Council.
- NH 2 To require potential developers to consult with relevant agencies as early as possible (i.e. prior to lodging a planning application) to ensure that heritage concerns are considered early in the planning process and so that the final planning application can be appropriately informed.
- NH 3 To work with the relevant agencies in promoting awareness of and pride in the natural, built and archaeological heritage of Enniscorthy. This will be achieved by producing leaflets, publications, town walks and heritage trails that seek to promote all aspects of the town’s heritage.

SEO – B1:	To avoid loss of habitats and flora and fauna in designated wildlife sites.
Indicator B1:	Percentage of habitat or percentage of species lost in designated wildlife sites.
Target B1:	No losses of habitat or species in designated wildlife sites during lifespan of the Town & Environs Plan.

SEO – B2:	To avoid significant adverse impacts, including direct, cumulative and indirect impacts, by development within and outside designated wildlife sites to habitats and flora and fauna within these sites.
Indicator B2:	Number of significant impacts by development within and outside designated wildlife sites to habitats and flora and fauna within these sites.
Target B2:	No significant impacts by development within and outside designated wildlife sites to habitats and flora and fauna within these sites during lifespan of the Plan.

4.2 Population & Human Health

The prohibitive cost of securing land in Enniscorthy for community facilities, amenities and infrastructure presents a serious barrier and in some places a shortfall in the development of sports & recreational facilities, primary & secondary schools, amenity parks, and playgrounds, to serve the local communities.

Human Health has the potential to be adversely impacted upon by pollution of surface water streams and rivers. Human Health has the potential to positively be impacted upon through improvement and provision of recreational amenities and open space.

Issues relating to traffic levels have been evaluated and considered at other land-use planning levels with regard to the development of outer circulation routes to connect the existing radial routes, and also the proposed Enniscorthy By-Pass. Both of which are likely to reduce traffic levels and associated emissions and noise in the town centre and are supported by the Enniscorthy Town & Environs Plan 2008-2014.

Policies of Enniscorthy Town & Environs Development Plan 2008-2014
Section 9.3 - relating to population & human health include;

TR 1	To ensure that adequate amenity and recreational open space and facilities, including community facilities and centres, are available for all groups of the population at a convenient distance from their homes and places of work.
TR 2	To seek the provision for a minimum standard of 2 hectares (5 acres) of public open space per 1,000 population in all housing developments. To meet this standard, suitable areas of land will be identified and reserved for the provision of public open space.
TR 3	To manage to a high standard all of its public parks, playing fields and public open space.
TR 4	To secure the development of indoor and outdoor recreational facilities, which can be shared with schools, on suitable sites where resources are available.
TR 5	To seek the provision and suitable management of a children’s play area in new housing estates in suitable locations.
TR 6	To ensure the loss of existing public or private open space will normally be resisted by the local authority unless alternative recreational facilities are provided in a suitable location.
TR 7	To investigate ways of improving the quality and capacity of existing sporting and recreational facilities through initiatives in both the public and private sector.

SEO P1:	To provide for appropriate community facilities, amenities and infrastructure to support new and existing developments within and surrounding the Town.
Indicator P1:	Provision of community facilities, amenities and infrastructure including safe walking and cycling routes, a riverside walk, playgrounds, sports and recreational facilities, new primary and secondary schools, and other such facilities.
Target P1a:	All necessary community facilities including a community centre, safe walking & cycling routes, a riverside walk, playgrounds, sports and recreational facilities, new primary & secondary schools and other facilities as identified by the Enniscorthy Town & Environs Plan 2008-2014.
Target P1b:	Sites and/or facilities for new primary & secondary schools, riverside walk, playgrounds and sports areas to be identified and secured or provided during life span of Plan.



4.3 Soil

Soil can be considered a non-renewable resource because it develops over very long timescales. To date there is no specific legislation for the protection of soil resources however an EU Directive on soil is currently proposed, which will set out common principles for protecting soil across the EU.

Existing environmental problems relating to soil include the obliteration and removal of topsoil and/or loss of soil profile by compaction due to building upon soil together with the pollution and contamination of soil as a result of surface and ground water pollution and contamination.

Policies of Enniscorthy Town & Environs Development Plan 2007-2013 relating to soil include;

- WM 1 To promote the implementation of the Waste Management Plan (2006) for Wexford together with any future Waste Management Plans.
- WM 2 To encourage waste prevention, minimisation, reuse, recycling and recovery as methods of managing waste. Where waste management is not being carried out properly, the Waste Management Acts, 1996 to 2001 will be used as a means to ensuring specific national policies and regulations are adhered to.
- WM 3 To encourage the recycling of construction and demolition waste and the reuse of aggregate and other materials.
- WM 4 To promote the ‘polluter pays principle’.
- WM 6 To promote and facilitate communities to become involved in environmental awareness activities and community-based recycling initiatives or environmental management initiatives that will lead to local sustainable waste management practices.

SEO S1:	To maintain the quality of soil.
SEO S2:	To maximize the sustainable re-use of brownfield lands where possible.
Indicator S2:	Area of brownfield land available.
Target S2:	No brownfield land to be available at the end of the Plan’s lifespan.

4.4 Water

The principle legislation governing water quality in Ireland is the European Communities (Water Policy) Regulations 2003 (SI No. 722 of 2003) which transposes the Water Framework Directive (200/60/EC). The Water Framework Directive sets out that all member states shall implement the necessary measures to prevent deterioration of the status of all waters - surface, ground, estuarine, and coastal, and shall protect, enhance and restore all waters with the aim of achieving good status by 2015. Also, all public bodies, including Enniscorthy Town Council and Wexford County Council, are required to coordinate their policies and operations so as to maintain the good status of water bodies which are currently unpolluted and bring polluted water bodies up to good status by 2015. Good status as defined by the Water Framework Directive equates to approximately Q4 in the national scheme of biological classification of surface waters as set out by the EPA. River quality in Ireland is also governed by the Phosphorous Regulations, prepared under Article 4(4) of the local Government (Water Pollution) Act 1977. The Phosphorous Regulations require that river quality be maintained or improved with regard to phosphorous levels and identify that phosphorous should be less than or equal to 30µg per litre for rivers to be of good water quality status. Phosphorous is a major limiting vegetative growth factor in fresh surface waters and high levels can lead to an accelerated growth of algae resulting in reduced dissolved oxygen levels and placing pressures on fish populations.



Policies of Enniscorthy Town & Environs Development Plan 2008-2014, relating to water quality.

- WS 4

Promote public awareness on the maintenance of water quality and economic and sustainable use.
- SW 1

Protect existing groundwater aquifers and surface waters from pollution;
- SW 2

Protect the water quality of the River Slaney and continue to implement the Water Quality Management Plan for the River Slaney, and to ensure that the water quality of the river is maintained at a satisfactory level in accordance with EU Directive Number 78/659 that lists the river as a salmonoid river.

SEO W1:	To improve the quality of surface waters.
Indicator W1a:	µg of Phosphorous per litre of surface water.
Target W1a:	To reduce the amount of phosphorous in surface waters over the lifespan of the Plan.
Target W1a(i):	To achieve a level of less than 30µg of phosphorous per litre of surface water, in line with the requirement to achieve good water status under the Water Framework Directive, by 2015.
Indicator W1b:	Biotic Quality Rating (Q value).
Target W1b:	To achieve a biotic quality rating of Q 4, in line with the requirement to achieve good water status under the Water Framework Directive, by 2015.
SEO W2:	To prevent pollution and contamination of ground water.

4.5 Flooding

Enniscorthy has been identified as being susceptible to flooding, with the most recent flood having been in Nov. 2000, where quite substantial damage was caused.

Policies of Enniscorthy Town & Environs Development Plan 2008-2014, relating to flooding;

SW 3	Prevent the alteration of natural drainage systems and in the case of development works require the provision of acceptable mitigation measures in order to minimise the risk of flooding and negative impacts on water quality.
SW 4	Promote storm water retention facilities for new developments and existing catchment areas.
SW 5	Ensure that development should not itself be subject to an inappropriate risk of flooding nor should it cause or exacerbate such a risk at other locations.
SW 6	Preserve and protect the water quality of the natural wetlands and flood plains of the River Slaney where these help to regulate stream flow, recharge ground water and screen pollutants.
SW 7	Control development in any flood plain. Development will only be permitted when the Councils are satisfied that new and existing developments are not exposed to increased risk of flooding and that any loss of flood storage is compensated for elsewhere in the river catchment.

SEO F1:	To mitigate the effects of floods.
Indicator F1:	Number and types of developments granted permission in areas liable to flooding.
Target F1:	No development to be granted in flood plain areas, apart from redevelopment of existing structures and new developments within the town centre core which are designed to withstand the 100 yr flood.

4.6 Air & Climatic Factors

Air quality issues have been determined to be more appropriately assessed at higher levels in the land use and environmental protection hierarchies, at a regional level by the EPA , as well as at relevant individual project levels.

Policies of Enniscorthy Town & Environs Development Plan 2008-2014, relating to air and climatic factors;

CW 3	To continue to provide for and extend the system of safe pedestrian and cycle routes linking residential areas and the town centre with schools, shops, the train station and open spaces.
TM 6	To encourage cycling for short distances in and around the town centre and from the immediate hinterland.
EN 1	All new residential building developments will be required to meet low energy performance targets. Each building's energy performance as calculated by the Building Energy Rating (BER) will have a minimum energy efficiency rating of B1. New buildings should incorporate renewable energy technologies in order to help achieve the B1 rating required.
EN 2	To encourage applicants for planning permission to take into consideration passive solar design principles when designing an individual building or estate.
EN 3	To support and encourage the installation of renewable energy sources such as heat pumps, wood heating systems, solar collectors or solar panels.
EN 4	To adapt and maintain energy conservation measures within the Joint Councils' own developments and to encourage developers to implement such measures.

EN 5 To support national and international initiatives for limiting emissions of greenhouse gases through energy efficiency and the development of renewable energy sources which makes use of the natural resources of the County in an environmentally acceptable way.

SEO A1:	Reduce all forms of air pollution and reduce dependence on travel by private car
Indicator F1:	Change in Air Quality
Target F1:	Maintain/improve air quality within Air Quality index bands

4.7 Material Assets

The treatment of wastewater is governed by the Urban Waste Water Treatment Directive (91/271/EEC) (amended by Directive 98/15/EEC) transposed into Irish law by the Urban Waste Water Treatment Regulations 2001 (S.I. 254 of 2001). The Directive aims to protect the environment from the adverse effects of the wastewater discharges by ensuring that wastewater is appropriately treated before it is discharges to the environment. Also the treatment of wastewater is relevant to the Water Framework Directive which requires all public bodies, to co-ordinate their policies and operations so as to maintain the good status of water bodies which are currently unpolluted and bring polluted water bodies up to good status by 2015.

Policies of Enniscorthy Town & Environs Development Plan 2008-2014, relating to material assets;

- WW 1 Collect the foul sewerage from within the town and environs and to discharge it after treatment in a safe and sustainable manner.
- WW 2 Provide satisfactory wastewater treatment facilities to serve existing and future populations.
- WW 3 Separate foul and surface water drainage systems where feasible in order to reduce the volume of material entering the treatment plant and to ensure that all new developments provide separate on-site foul and surface water drainage systems.
- WS 1 Provide an adequate, sustainable and economic public water supply to provide for the existing and future populations.
- WS 2 Implement a programme for upgrading water supply mains so as to provide adequate standards of water quality, pressure, and storage and fire safety.
- WS 3 Conserve supplies though the maintenance of the mains and the elimination of leakages.

SEO M1:	To protect the environment from adverse effects of the wastewater discharges by ensuring that wastewater is appropriately treated before it is discharged to the environment.
Indicator M1a:	µg of Phosphorous per litre of wastewater discharge.
Target M1a:	To aim towards achieving a level of less than 30µg of Phosphorous per litre of wastewater discharge from new and upgraded wastewater treatment systems.

4.8 Cultural Heritage

Implementation of the Plan has the potential to impact upon cultural heritage, archaeological and architectural.

Policies of Enniscorthy Town & Environs Development Plan 2008-2014, relating to cultural heritage;

Policies of Enniscorthy Town & Environs Development Plan 2008-2014, relating to cultural heritage are contained in Chapter 9 of the Plan and are fully listed in Chapter 7 of this Environmental report (the following are a sample);

BH1	To protect the architectural heritage of Enniscorthy and to include all structures considered to be of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest in the Record of Protected Structures.
AH 1	To have regard to the Record of Monuments and Places (RMP), and the Urban Archaeological Survey prepared for Enniscorthy town (when it becomes available) when dealing with planning applications for development or threats to recorded items. Development shall be controlled in the vicinity of a recorded feature where it detracts from the setting of the feature or where it is seriously injurious to its cultural or educational value. In all such cases the Councils shall consult with the National Monuments Section of the Department of Environment, Heritage and Local Government (DoEHLG).
NH 5	To co-operate with other agencies, organisations and individuals in the assessment of and the promotion of access to heritage sites.

SEO C1:	To promote the protection and conservation of the cultural, including architectural and archaeological heritage.
Indicator C1:	Number of planning applications for works to protected structures.
Target C1:	Maintain or increase number of protected structures contained in the RPS of the Plan.

4.9 Landscape

Ireland signed and ratified the European Landscape Convention on 22 March 2002 with the Convention entering into force in Ireland from 1st March 2004. The convention fills the legal vacuum caused by the absence at European level, of a specific, comprehensive reference text devoted entirely to the conservation, management and improvement of European landscapes in the international legal instruments on the environment regional planning and cultural heritage. The aims of the Convention include: to conserve and maintain the significant or characteristic features of a landscape, justified by its heritage value derived from its natural configuration and/or from human activity; to harmonise changes in the landscape which are brought about by social, economic and environmental processes, and to enhance landscapes.

Policies of Enniscorthy Town & Environs Development Plan 2008-2014, relating to landscapes;

BH4	To support measures to retain heritage gardens and demesne landscapes of national and international importance within Enniscorthy and will discourage development that would detract from the character and integrity of these landscapes.
-----	--

SEO L1:	To conserve, maintain and enhance the status of Enniscorthy's natural river side landscape & Vinegar Hill's historic landscape as an attractive amenity, historical, recreational and ecological resource.
Indicator C1:	Number of planning applications along riverside and within proximity of Vinegar Hill.
Target C1:	No developments to be conspicuously located within the Slaney riverside & Vinegar Hill.