



Cork County Council

Strategic Environmental Assessment of Variation No. 2 to Cork County Council Development Plan 2009

Final Environmental Report

Date: July 2011

Cork County Development Plan 2009 Variation No 2: Wind Energy Final SEA Environmental Report



Contents

1	Non Technical Summary	1
	1.1 Introduction	1
	1.2 SEA Methodology.....	1
	1.3 Assessment of Alternatives	3
	1.4 Current State of the Environment	4
	1.5 Environmental, Objectives, Targets & Indicators	6
	1.6 Identification of Likely Significant Effects of Proposed Variation.....	7
	1.7 Mitigation Measures	8
	1.8 Monitoring	9
2	Introduction	10
	2.1 Background.....	10
	2.2 Strategic Environmental Assessment.....	11
	2.3 Content of Environmental Report.....	12
	2.4 Difficulties Encountered/Data Gaps	13
3	SEA Methodology.....	14
	3.1 Introduction	14
	3.2 SEA Screening.....	15
	3.3 Scoping	16
	3.4 Consultation - Environmental Report.....	22
	3.5 Adoption of the Proposed Variation & the SEA Statement	22
4	Variation to the Cork County Development Plan 2009-2015	24
	4.1 The Proposed Variation	24
	4.2 Geographic Scope of the Variation to the Plan.....	28
	4.3 Relevant Plans and Programmes.....	29
5	Assessment of Alternatives	39
	5.1 Introduction	39
	5.2 Assessment of Options	41

Cork County Development Plan 2009

Variation No 2: Wind Energy

Final SEA Environmental Report



	5.3	Conclusion	43
6		Current State of the Environment	45
	6.1	Background.....	45
	6.2	Biodiversity, Flora & Fauna	45
	6.3	Population & Human Health	48
	6.4	Air & Climate.....	49
	6.5	Material Assets (Infrastructure)	50
	6.6	Landscape & Land Use	54
	6.7	Cultural Heritage, including Architectural and Archaeological Heritage.....	60
7		Environmental Protection Objectives	63
	7.1	Introduction.....	63
	7.2	Environmental Protection Objectives	63
8		Identification of Likely Significant Effects of Proposed Variation.....	65
	8.1	Impact Assessment.....	65
	8.2	Summary of the Key Likely Environmental Impacts Of Implementing the Proposed Variation to the Plan	66
	8.3	Interrelationships.....	71
9		Mitigation Measures	73
	9.1	Introduction.....	73
	9.2	Mitigation Measures Relating to Environmental Aspects.....	73
	9.3	Change of Wording to Draft Variation	76
10		Monitoring	78
11		Conclusion from Managers Report	80
12		References.....	81

Cork County Development Plan 2009 Variation No 2: Wind Energy Final SEA Environmental Report



Tables

Table 3.1	Main Outputs of the SEA Process
Table 4.1	2009 Wind Energy Objective INF 7-4
Table 4.2	Variation to the Development Plan Wind Energy Objective INF 7-4
Table 4.3	2009 Industry Objective Econ 3-2
Table 4.4	Proposed Variation to the definition of Strategically Unsuitable Areas
Table 4.4	Preliminary Review of Legislations, Plans, Policies and Programmes – International
Table 4.5	Preliminary Review of Legislations, Plans, Policies and Programmes – European Union
Table 4.6	Preliminary Review of Legislations, Plans, Policies and Programmes – National
Table 4.7	Preliminary Review of Legislations, Plans, Policies and Programmes – Regional and Local
Table 6.1	Scenic Routes within the Environs of Ringaskiddy
Table 5.2	List of Protected Structures within or close to Ringaskiddy Area
Table 7.1	Strategic Environmental Protection Objectives
Table 8.1	Interrelationships between the Environmental Aspects
Table 9.1	Mitigation Measures required for each Environmental Aspect
Table 10.1	Indicators, Targets and Monitoring sources for each Environmental Aspect

Cork County Development Plan 2009 Variation No 2: Wind Energy Final SEA Environmental Report



Figures

- Figure 4.1 The Area Relating to the Proposed Variation (Ringaskiddy) and its Environs
- Figure 4.2 Ringaskiddy as defined by the Cork County Development Plan 2009
- Figure 5.1 Zoning map of Ringaskiddy
- Figure 6.1 Natura 2000 Sites within a 15km radius of Ringaskiddy
- Figure 6.2 Landscape Map 16 of Cork Harbour from County Development Plan
- Figure 6.3 Strategic Wind Energy Areas (CCDP 2005)

Appendices

- Appendix A SEA Screening Report
- Appendix B SEA Scoping Report
- Appendix C SEA Scoping Responses

Cork County Development Plan 2009 Variation No 2: Wind Energy Final SEA Environmental Report



1 Non Technical Summary

1.1 Introduction

Cork County Council made a Variation of the Cork County Development Plan 2009-2015 in accordance with Section 13 of the Planning and Development Act 2000 (as amended). The Variation became operational on the 13th December 2010

This Variation concerns the inclusion of additional text to the Wind Energy policy contained in Chapter 6, Volume 1 of the County Development Plan 2009. The County Council has identified a number of locations in the county as suitable for large scale industry being Carrigtwohill, Kilbarry, Little Island, Ringaskiddy and Whitegate. In all these locations, except Ringaskiddy, wind energy proposals can be considered on their merits and in accordance with the criteria set out in objective INF 7-4.

The Council, in the preparation of its County Development Plan objective for wind energy, identified two special areas; Strategic Search Areas and Strategically Unsuitable Areas. Ringaskiddy is located within a Strategically Unsuitable Area where wind energy proposals, although not ruled out, will generally be small in scale. It is the Council's view that this policy position in relation to wind energy at Ringaskiddy is inconsistent with the other objectives for Ringaskiddy *i.e.* as a location for large scale industry, and in relation to encouraging business and industry generally to increase its use of wind energy.

Therefore, the Variation brings the policy position in Ringaskiddy in line with the approach already taken with regard to other areas identified for large scale industry to enable wind energy proposals at Ringaskiddy to be considered on their merits in relation to the criteria set out in objective INF7-4 and other proper planning considerations.

In order to assess the potential environmental consequences of varying the wind energy objective contained in the 2009 County Development Plan, WYG on behalf of Cork County Council, carried out a Strategic Environmental Assessment under Directive 2001/42/EC.

1.2 SEA Methodology

1.1.2 SEA Screening

Screening is the first stage in the SEA process and is the term given to the process where the need for an SEA of a given plan or programme is determined.

A SEA Screening Report was prepared by WYG, on behalf of the Council, which concluded that a Strategic Environmental Assessment of the Proposed Variation was required.

Cork County Development Plan 2009 Variation No 2: Wind Energy Final SEA Environmental Report



1.1.2 SEA Scoping

The aim of the scoping stage is to decide on the extent and level of detail to be included in the Environmental Report. This was done through consultation with the designated environmental authorities outlined below:

- Environmental Protection Agency (EPA);
- The Department of Environmental Heritage and Local Government (DEHLG);
- The Department of Communication, Energy and Natural Resources (DCENR).

The SEA Scoping process highlighted the issues that needed to be addressed in the Environmental Report and also identified the issues which could be scoped out and did not require further attention in the Environmental Report

The main issues arising from the scoping exercise were Biodiversity, Flora and Fauna, Landscape and Visual, Population and Human Health, Material Assets, Cultural Heritage, including Architectural and Archaeological Heritage and Air and Climate.

The environmental aspects of Soil and Water were scoped out of the assessment.

1.1.3 SEA Environmental Report

Consultation on the Environmental Report, in parallel with consultation on the Proposed Variation, is a requirement of the SEA Regulations. The Environmental Report was put out for consultation alongside the Proposed Variation and the Natura Impact Report (formally Natura Impact Statement) from the 1st October - 29th October 2010.

The Environmental Report contains an assessment of the likely significant effects of implementing the Variation to the Plan.

1.1.4 SEA Statement

It is a requirement that the consultations, findings and submissions received during this process are considered when deciding to adopt or modify a Draft Plan and that the findings of the SEA Environmental Report are considered in the adoption of the Draft Plan (in this case the Proposed Variation).

The SEA Statement is the final document which draws together the SEA process and summaries how the environmental considerations have been integrated into the Variation. It also summarises how the

Cork County Development Plan 2009

Variation No 2: Wind Energy

Final SEA Environmental Report



submissions on the Environmental Report have been taken into account during the preparation of the Variation; the reasons for choosing the Variation (as adopted) in light of other reasonable alternatives considered and outlines the monitoring programme proposed to monitor the effects of the implementations of the Variation.

1.3 Assessment of Alternatives

The consideration of alternatives is an important part of the SEA process. The aim of the consideration of alternatives is to look at differing ways to achieve a stated objective or intention.

Two alternative strategies were considered:

1. Do Nothing Scenario;

The 'do nothing scenario' would result in Ringaskiddy remaining designated as a 'Strategically Unsuitable Areas' for wind energy proposals

2. The Proposed Variation.

The Proposed Variation involves changing the Cork County Development Plan to enable wind power proposals located within the areas identified as suitable locations for large scale industrial development in Objective ECON 3-2 of the Cork County Development Plan 2009, which Ringaskiddy is part of, to be considered on their merits

An assessment of each alternative against the environmental aspects using a set of assessment criteria was carried out during the preparation of the Draft Environmental Report.

The do nothing scenario will not allow large wind energy projects to occur in the industrial areas of Ringaskiddy and will not contribute to Ireland's obligations under the Renewable Energy Directive (2009/28/EC) that by 2020. The do nothing scenario will also not help contribute towards reducing greenhouse gas emissions and combating Climate Change. Hence, this scenario was not recommended.

Therefore, the Proposed Variation to the Plan, to remove the classification of Ringaskiddy as a 'Strategically Unsuitable Area', was the preferred strategy. The Proposed Variation to the Plan will help Ireland comply with the UN Kyoto protocol and other Climate Change policies and also the Renewable Energy Directive (2009/28/EC).

Cork County Development Plan 2009

Variation No 2: Wind Energy

Final SEA Environmental Report



1.4 Current State of the Environment

1.4.1 Biodiversity, Flora & Fauna

- The Natura 2000 site network was established by the European Communities (Habitats) Directive 1992 and consists of Special Protection Areas (SPA) and Special Areas of Conservation (SAC). There are no environmental designations or protected areas within Ringaskiddy but there are two Natura 2000 sites within 15 km of Ringaskiddy and these are Cork Harbour SPA (site code: 004030) and the Great Island Channel SAC (site code: 001058). Cork Harbour is designated as Ramsar Site of international importance due to the important populations of waders.
- Two of the intertidal areas of the Cork Harbour SPA are located immediately adjacent to Ringaskiddy with Monkstown Creek located to the north and Lough Beg to the south. Both of these areas are used by qualifying interest species such as cormorant, shelduck, oystercatcher, black-tailed godwit, curlew and redshank for feeding and roosting during the winter season (NATURA Environmental Consultants, 2010).
- Cork Harbour is of major ornithological significance, being of international importance both for the total numbers of wintering birds (*i.e.* > 20,000) and also for its population of Redshank. In addition, there are at least 15 wintering species that have populations of national importance, as well as a nationally important breeding colony of Common Tern. Several of the species which occur regularly are listed on Annex I of the E.U. Birds Directive, *i.e.* Whooper Swan, Golden Plover, Bar-tailed Godwit, Ruff and Common Tern. The site provides both feeding and roosting sites for the various bird species that use it.

1.4.2 Population & Human Health

- A reduction on the reliance of burning fossil fuels for electricity will result in an improvement in air quality and local health adjacent to power plants. An increase in energy supply security and reduction in energy costs for manufacturing plants in the Ringaskiddy area will result in a more cost competitive environment and potentially result in job security for the Cork region.

1.4.3 Air & Climate

- Ringaskiddy air quality is classified as Zone D – Rural Ireland. This indicates that generally the background air quality is of good quality and should be unpolluted by urbanisation.

1.4.4 Material Assets (Infrastructure)

- Ringaskiddy is an important industrial area and as such has significant infrastructure. The N28 National Primary road runs in an east west direction along the northern part of Ringaskiddy. A car ferry terminal is located at the deep water port. A number of pharmaceutical facilities operate in Ringaskiddy Area

Cork County Development Plan 2009

Variation No 2: Wind Energy

Final SEA Environmental Report



and the Lower Harbour, including Pfizer Ringaskiddy, Pfizer Lough Beg, DePuy, GSK, Centocor and Novartis.

- Ringaskiddy is not within the outer flight path safety zone of Cork Airport. Therefore, there will be no restrictions on windfarm developments due to flight lines.
- There are a number of overhead power cables in the Ringaskiddy area which supply electricity to the manufacturing facilities. Adequate clearance between overhead power lines and wind turbines must be considered. It is considered that overhead power lines can be assessed at a project level.
- Wind turbines produce electromagnetic radiation and can interfere with broadcast communications. Radio, television and mobile phone masts may be in the area. It is considered that broadcast communications can be assessed at a project level.
- There are a number of Seveso sites within the Ringaskiddy and Lower Harbour area which relate to the pharmaceutical manufacturing facilities. It is not considered that the presence of Seveso site in the area will have any bearing on wind energy generation.

1.4.5 Landscape & Land Use

- Cork County Draft Landscape Strategy (CCDLS 2007) describes Cork Harbour as “*mix of rural and intensely urban areas, combined with a large expansive harbour. The western side of the harbour, which includes Ringaskiddy, supports major industrial development, while on higher ground telecommunication masts or water storage towers punctuate the skyline.*” and it notes that Cork Harbour that the “*highest concentration of pharmaceutical companies in the country is located within this landscape*”.
- The CCDLS classification of Cork Harbour and Estuary is:
 - Landscape Value: Very High – (defined as scenic landscapes with highest natural and cultural quality, areas with conservation interest and of national importance).
 - Landscape Sensitivity: Very High – (defined as extra vulnerable landscapes likely to be fragile and susceptible to change).
 - Landscape Importance: National
- The County Development Plan 2009 identifies much of Cork Harbour as being a ‘Scenic Landscape’ although the majority of the Ringaskiddy Area is not recognised as a Scenic Landscape.
- The County Development Plan 2009 identifies four scenic routes which either traverse Ringaskiddy (Scenic Route S54) or have a view of Ringaskiddy (Scenic Route S51, S53 & S58)
- The County Development Plan set out two special types of areas for consideration for wind energy; ‘Strategic Search Areas’ and ‘Strategically Unsuitable Areas’. Almost the entire length of the Cork coastline is classified as Strategically Unsuitable Areas. However, most of Cork Harbour is neither classified as Strategic Search Areas nor Strategically Unsuitable Areas. The exception is a small part of the Lower Cork Harbour which has been classified as being a Strategically Unsuitable Area. This

Cork County Development Plan 2009

Variation No 2: Wind Energy

Final SEA Environmental Report



includes Crosshaven, Currabinny and Ringaskiddy on the western mouth of the harbour. On the eastern mouth of the estuary the Strategically Unsuitable Area is located around Roaches Point.

1.4.6 Cultural Heritage, including Architectural and Archaeological Heritage

- The National Inventory of Architectural Heritage (NIAH) database does not report any historic buildings or structures in the Ringaskiddy. However, the adjacent Haulbowline Island and Spike Island have a number of historic buildings. Part of Haulbowline Island is designated as a "Haulbowline Conservation Area", an 'Architectural Conservation Area', in the County Development Plan.
- A number of protected structures and archeological features are located within or close to Ringaskiddy Area. Of particular prominence is the Martello Tower (RPS No. 575) located on the high ground at the eastern end of the area.

1.5 Environmental, Objectives, Targets & Indicators

The Environmental Protection Objectives for the Variation to the 2009 County Development Plan have been selected from European, National and Regional Environmental Policy and Guidance. The scoping and public consultation processes for the Variation to the Development Plan SEA informed the selection of appropriate objectives. The objectives are set out below, under the range of environmental aspects specified in the relevant SEA Regulations and in the DoEHLG and EPA guidelines.

The key Strategic Environmental Protection Objectives for the Variation to the 2009 County Development Plan are outlined below:

Environmental Aspect	Strategic Environmental Protection Objective
Biodiversity, Flora & Fauna	B.1. Prevent damage to biodiversity, particularly EU designated sites and protected species.
Population & Human Health	P.1. Improve energy security.
Air & Climate	A.1. Reduce greenhouse gas/carbon emissions.
Landscape & Landuse	L.1. Minimise the landscape impact of new wind turbines and protect the character, diversity and special qualities of landscapes.
Material Assets	M.1. Promote sustainable energy infrastructure and practices.
Cultural Heritage, including Architectural and Archaeological Heritage	C.1 Protect the character, diversity and special qualities of cultural heritage, architectural and archaeological heritage.

Cork County Development Plan 2009

Variation No 2: Wind Energy

Final SEA Environmental Report



1.6 Identification of Likely Significant Effects of Proposed Variation

1.6.1 Biodiversity, Flora & Fauna

The key issue in relation to biodiversity is the potential impact of turbines in Ringaskiddy on the important populations of wintering waterbirds in Cork Harbour. The proposed variation to the Plan is likely to result in the construction of several windfarms within the existing industrial areas of Ringaskiddy. Two of the intertidal areas of the Cork Harbour SPA are located immediately adjacent to Ringaskiddy, with Monkstown Creek located to the north and Lough Beg to the south. Both of these areas are used by qualifying interest species such as cormorant, shelduck, oystercatcher, black-tailed godwit, curlew and redshank for feeding and roosting during the winter season. Wind turbines can impact on waterbirds through:

1. collision risk with moving turbine blades;
2. displacement of birds as they may avoid roosting and feeding areas close to turbines;
3. barrier effects by disrupting flight lines; and
4. direct habitat loss if the turbines and associated infrastructure are built on foraging or roosting habitat.

1.6.2 Population & Human Health

Noise and/or shadow flicker effects of wind turbines may potentially occur and may have a negative impact on the local population close to the turbines.

A reduction in energy production costs and increase in energy security for current and prospective industry in Ringaskiddy will help secure employment in the Cork region. This is considered a key positive impact on the regional population and economy. A reduction in the use of fossil fuels will have a positive impact on the health of people living close to power plants.

1.6.3 Air & Climate

The industries in Ringaskiddy are high electricity consumers. The use of renewable energy sources will have a positive impact on the regional and national consumption of fossil fuels and carbon emissions.

1.6.4 Material Assets (Infrastructure)

There are no significant potential impacts on the material assets of the area.

Cork County Development Plan 2009

Variation No 2: Wind Energy

Final SEA Environmental Report



1.6.5 Landscape & Land Use

While wind turbines may have a landscape impact on the Ringaskiddy and Cork Harbour, it is considered that the recognised industrialised characteristics of Ringaskiddy may be able to accommodate wind turbines. The potential impact is mainly determined by the size, scale and positioning of turbines. Therefore, it is considered that the best approach is to assess potential impacts on the landscape of Cork Harbour is to address the potential landscape impact at the project level.

1.6.6 Cultural Heritage, including Architectural and Archaeological Heritage

The recorded monuments, other archaeological features and architectural heritage structures in Ringaskiddy may be compromised by wind turbines. There are a number of these protected structures in the Ringaskiddy area. The inappropriate positioning of turbines would be considered a key likely impact on the cultural heritage of the area.

1.7 Mitigation Measures

Various mitigation measures were recommended and these were aimed at addressing the above impacts of the Variation. The key mitigation measures are outlined below:

General

- It is recommended by the EPA that for each energy development an Environmental Impact Assessment including visual impact assessment and an Appropriate Assessment be completed.
- Wind Energy Development Guidelines (DoEHLG 2006) should be adhered to on all projects.
- Compliance with relevant policies of the current Cork County Development Plan 2009-2015 and satisfy normal planning provisions as set out in the Wind Energy Development Guidelines (2006).

Biodiversity, Flora & Fauna

- A Habitats Directive Assessment (Appropriate Assessment) should be carried out, in accordance with the Department of the Environment Heritage and Local Government (DoEHLG) Appropriate Assessment Guidance for Planning Authorities, on all proposed wind energy developments at Ringaskiddy.
- A buffer zone between turbines and waterbird high tide roost sites or important intertidal feeding areas is required. The buffer zone distance should be based on current best practice, site conditions and advice from the NPWS.
- Wind farm layout design to be configured to ensure that wind turbines are not placed directly on important bird flight paths.

Cork County Development Plan 2009 Variation No 2: Wind Energy Final SEA Environmental Report



Landscape & Land Use

- For each project a Landscape and Visual Impact Assessment (LVIA) should be conducted,
- Key landscape views to be considered are;
 - View from Scenic Routes recognised in the CCDP
 - Views from main population centres which overlook the proposed turbines e.g. Cobh
 - Seascape and coastscape view.

Amend text of variation

It is imperative that an Habitats Directive Assessment, in compliance with Article 6 of the EU Habitats Directive, is prepared for each proposed development at the planning application stage *i.e.* project level. As requested by the National Parks and Wildlife Service (NPWS) the variation should include the line that all projects shall be "***subject to compliance with Article 6 of the EU Habitats Directive***".

This amendment to the Proposed Variation will ensure that there are no adverse effects of wind turbine development on the Cork Harbour SPA

1.8 Monitoring

The recommended monitoring programme has been developed in consideration of the identified likely significant effects. Monitoring is carried out by reporting on a set of indicators, which enable positive and negative impacts on the environment to be measured. They have been developed to show changes that would be attributable to implementation of the Plan.

The purpose of monitoring is to determine if unforeseen effects have arisen during the implementation of the Variation and to take remedial action, if required.

Cork County Development Plan 2009 Variation No 2: Wind Energy Final SEA Environmental Report



2 Introduction

2.1 Background

Cork County Council made a variation of the Cork County Development Plan 2009-2015 in accordance with Section 13 of the Planning and Development Act 2000 (as amended). The Variation became operational on the 13th December 2010.

The Variation concerns the inclusion of additional text to the Wind Energy policy contained in Chapter 6, Volume 1 of the County Development Plan 2009. The County Council has identified a number of locations in the county as suitable for large scale industry being Carrigtwohill, Kilbarry, Little Island, Ringaskiddy and Whitegate. In all these locations, except Ringaskiddy, wind energy proposals can be considered on their merits and in accordance with the criteria set out in objective INF 7-4.

The Council, in the preparation of its County Development Plan objective for wind energy, identified two special areas; Strategic Search Areas and Strategically Unsuitable Areas. Ringaskiddy is located within a Strategically Unsuitable Area where wind energy proposals, although not ruled out, will generally be small in scale. It is the Council's view that this policy position in relation to wind energy at Ringaskiddy is inconsistent with the other objectives for Ringaskiddy *i.e.* as a location for large scale industry, and in relation to encouraging business and industry generally to increase its use of wind energy.

Therefore, the Variation brings the policy position in Ringaskiddy in line with the approach already taken with regard to other areas identified for large scale industry to enable wind energy proposals at Ringaskiddy to be considered on their merits in relation to the criteria set out in objective INF7-4 and other proper planning considerations.

In order to assess the potential environmental consequences of varying the wind energy objective, WYG on behalf of Cork County Council carried out a Strategic Environmental Assessment under Directive 2001/42/EC on the Proposed Variation.

As Ringaskiddy is close to the Cork Harbour SPA and the Great Island Channel SAC, a Habitats Directive Screening Assessment, under the EU Habitats Directive 1992/43/EEC, in respect of a Proposed Variation to the Cork County Development Plan, 2009, was also carried out.

Cork County Development Plan 2009

Variation No 2: Wind Energy

Final SEA Environmental Report



2.2 Strategic Environmental Assessment

The main objective of the SEA Directive is to *“provide for a high level of protection for the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans and programmes with a view to promoting sustainable development.”*

Directive 2001/41/EC environmental assessment of the effects of certain plans and programmes on the environment (“SEA Directive”) came into force in Ireland on 21st July 2004. The Directive applies to plans and programmes for which the first formal preparatory action is taken on or after 21st July 2004. The Directive has been transposed into Irish Law through two sets of Regulations:

- European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 (S.I. 435 of 2004); and
- Planning and Development (Strategic Environmental Assessment) Regulations 2004 (S.I. 436 of 2004).

With regards to variations of development plans the Planning and Development (Strategic Environmental Assessment) Regulations 2004 (S.I. 436 of 2004) established the legal requirements for SEAs. Under Article 13K, Section 1 it states that:

“Where a planning authority proposes to make a variation of a development plan under section 13 of the Planning & Development Act it shall, before giving notice under 13(2) of the Act, consider whether or not the proposed variation is likely to have significant effects on the environment, taking into account of relevant criteria set out in Schedule 2A.”

If it is found that the Variation of the Development Plan is likely to have a significant effect on the environment as described in Schedule 2A, the relevant planning authority is required to prepare an Environmental Report under Article 13L:

“A proposed variation of a development plan under section 13 of the Act shall be accompanied by or include an environmental report and any reference to a proposed variation in subsections (2), (3) (b) and (c), (5) and (6) of Section 13 of the Act shall be construed as also referring to the environmental report.”

Cork County Development Plan 2009

Variation No 2: Wind Energy

Final SEA Environmental Report



2.3 Content of Environmental Report

The contents of the SEA Environmental Report can be found in Schedule 2B of the Planning and Development (Strategic Environmental Assessment) Regulations 2004 (listed below), which itself based on Annex I of the SEA Directive.

The following information shall be contained in an environmental report

- (a) an outline of the contents and main objectives of the plan or programme, or modification to a plan or programme, and relationship with other relevant plans or programmes [see **Chapter 4**];
- (b) the relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme, or modification to a plan or programme [see **Chapter 6**],
- (c) the environmental characteristics of areas likely to be significantly affected [see **Chapter 4**];
- (d) any existing environmental problems which are relevant to the plan or programme, or modification to a plan or programme, including, in particular, those relating to any areas of a particular environmental importance, such as areas designated pursuant to the Birds Directive or the Habitats Directive [see **Chapter 4**];
- (e) the environmental protection objectives, established at international, European Union or national level, which are relevant to the plan or programme, or modification to a plan or programme, and the way those objectives and any environmental considerations have been taken into account during its preparation [see **Chapter 7**];
- (f) the likely significant effects on the environment, including on issues such as biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above factors [see **Chapter 8**];
- (g) the measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan or programme, or modification to a plan or programme [**Chapters 9 and 10**];
- (h) an outline of the reasons for selecting the alternatives dealt with, and a description of how the assessment was undertaken including any difficulties (such as technical deficiencies or lack of know-how) encountered in compiling the required information [see **Chapters 2 and 5**];

Cork County Development Plan 2009 Variation No 2: Wind Energy Final SEA Environmental Report



- (i) a description of the measures envisaged concerning monitoring of the significant environmental effects of implementation of the plan or programme, or modification to a plan or programme [see **Chapter 10**];
- (j) a non-technical summary of the information provided under the above headings (see **Non Technical Summary**).

2.4 Difficulties Encountered/Data Gaps

There were no specific difficulties encountered during the preparation of this Environmental Report. It must be noted that the assessment undertaken in this Environmental Report is a strategic and high-level assessment. EIA-type field studies (such as habitat assessments and specific on site investigations) have not been completed as such studies are normally completed when specific planning applications are submitted and specific details of each of the individual proposals/planning applications are known. All of the baseline data used in the preparation of this Environmental Report has been obtained from existing data sources (see **Chapter 6**).

Cork County Development Plan 2009 Variation No 2: Wind Energy Final SEA Environmental Report



3 SEA Methodology

3.1 Introduction

The SEA methodology involves the following main stages:

- Scoping the extent and level of detail to be examined in the Environmental Report and evaluation of feedback received from the scoping consultation process.
- Identify the content and main objectives of the Proposed Variation (now the Adopted Variation) to the Plan, its relationship with other plans and programmes and the reasonable alternatives considered.
- Establish the current (baseline) environment of the areas likely to be significantly affected by the implementation of the Variation to the Plan.
- Identify the relevant aspects of the current state of the environment and their likely evolution without implementing the Plan (Do-Nothing Scenario). The assessment will focus on the “Key Issues” identified in the Scoping Report.
- Identify Strategic Environmental Protection Objectives which are relevant to the Variation of the Plan.
- Assessment of the impact of implementing the Variation to the Development Plan.
- Consultation on the Variation to the Plan and Environmental Report.
- Production of the SEA Statement.
- Monitoring the environmental impacts of the Variation to Plan.

The main outputs of the SEA process and their importance in the context of the SEA process are shown in **Table 3.1**.

Cork County Development Plan 2009 Variation No 2: Wind Energy Final SEA Environmental Report



Table 3.1: Main Outputs of the SEA Process

SEA Output	Description
Scoping Report	The purpose of the Scoping Report is to inform Environmental Authorities of the key elements of the Variation to the Plan and the key environmental issues relevant to the Variation to the Plan. It aims to generate comment from stakeholders on the scope and approach to the SEA and on the variation to the Plan itself.
Environmental Report	The Environmental Report contains an assessment of the likely significant effects (on biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above factors) of implementing the Variation to the Plan.
SEA Statement	The main purpose of the SEA Statement is to provide information on the decision-making process making the process more transparent. It must be made available to the public to accompany the Adopted Variation to the Plan.

3.2 SEA Screening

Screening is the first stage in the SEA process and is the term given to the process where the need for an SEA of a given plan or programme is determined.

Article 13K(1) of the Planning and Development (Strategic Environmental Assessment) Regulations 2004 state that:

“Where a planning authority proposes to make a variation of a development plan under Section 13 of the Act it shall, before giving notice under section 13(2) of the Act, consider whether or not the proposed variation would be likely to have significant effects on the environment, taking into account of relevant criteria set out in Schedule 2A.”

A SEA Screening Report was prepared by WYG, on behalf of the Council, which concluded that a Strategic Environmental Assessment of the Proposed Variation was required (see **Appendix A**). This Screening Report was informed by the Habitats Directive Screening Assessment, which found that the Variation to the Plan may have a significant environmental effect on the Cork Harbour SPA.

Cork County Development Plan 2009

Variation No 2: Wind Energy

Final SEA Environmental Report



3.3 Scoping

3.3.1 General

Scoping is the term applied to the consideration of the range of environmental issues that will be addressed in the SEA Environmental Report. This is not a statutory process, but is however undertaken as per best practice. It is a crucial stage of the SEA process with respect to defining the scope and form of the SEA process.

The purpose of the scoping stage of the SEA process is to develop an understanding of the environmental parameters that may be affected by the key measures proposed by the plan, and to set a framework for identifying and evaluating the impact of these measures on these environmental parameters.

The aim of the scoping stage is to decide on the extent and level of detail to be included in the Environmental Report. This was done through consultations with the designated environmental authorities outlined below:

- Environmental Protection Agency (EPA);
- The Department of Environmental Heritage and Local Government (DEHLG);
- The Department of Communication, Energy and Natural Resources (DCENR).

A formal letter requesting submissions on the scope and detail of information to be contained in the Environmental Report was issued to these authorities in August 2010, accompanied by the Scoping Report (see **Appendix B**).

Responses were received from the EPA, DEHLG and DCENR. The complete submissions received in writing from the Environmental Authorities are contained in **Appendix C** and a summary of these responses are outlined in **Table 3.2** below.

Cork County Development Plan 2009 Variation No 2: Wind Energy Final SEA Environmental Report



Table 3.2: Summary of Statutory Consultee Responses

Consultee	Consultee Comment	Addressed in Report
Environmental Protection Agency	Consideration should be given to the merits of reviewing a specific spatial aspect of the Wind Energy Strategy <i>Strategic Search Areas</i> in the absence of revisiting the overall wind energy strategy for the County. Consideration should thus be given to undertaking an environmental assessment of the Cork County Wind Energy Strategy, as a follow on from the Cork County Development Plan review. As part of this review the scope of the SEA should then assess the feasibility on environmental grounds of the subject lands of the proposed review.	The wind energy variation is in Ringaskiddy intended to encourage economic stability and growth in an area categorized as a 'large scale industrial development areas'. The comments from the EPA on a county wind energy wide review has been noted by Cork County Council
	The implications of the proposed variation on the Carrigaline Local Area Plan which covers the subject lands should also be considered. The requirement and potential for the LAP, SEA and associated AA to assess the proposed variation should also be considered.	The implication on the Carrigaline LAP is outlined in Section 4.3 . Comment on requirement for SEA of the variation on the Carrigaline LAP has been noted by the County Council
	The SEA and AA should assess the full range of environmental effects as set out in the SEA Directive and Habitats Directive.	This has been addressed throughout this Environmental Report. Potential impacts are addressed in Section 8 .
	In particular potential cumulative and in combination effects in association with other relevant Plans, Programmes and projects should be assessed.	The linkage with other plans, programmes and projects is addressed in Section 4.3 .
	The assessment should ensure likely significant effects associated with construction, operation, maintenance and decommissioning are fully assessed. The impacts associated with related infrastructure such as construction roadways, site investigations, power lines etc. should also be assessed.	The impacts of the SEA at a strategic level are addressed in Material Assets, Section 6.5 . Project level impacts on construction, operation and maintenance will be addressed at project level.

Cork County Development Plan 2009
Variation No 2: Wind Energy
Final SEA Environmental Report



Consultee	Consultee Comment	Addressed in Report
	<p>The SEA and AA should consider reasonable and realistic spatial, density, intensity and technological alternatives in the context of the provisions for renewable energy in the Carrigaline area (e.g. Solar, Wind, Geothermal etc) and suitable combinations of the above.</p>	<p>Irish legislation does not permit transfer of privately generated electricity outside of a site unless it is connected to the national grid. Therefore, no other area in Carrigaline can be considered.</p> <p>Optimal electrical generation is from wind energy. Solar and geothermal energy sources generally generate heat and are not feasible alternative to wind energy.</p>
	<p>You are referred to the National Wind Energy Strategy Guidelines which should be incorporated and implemented as appropriate into the proposed Variation.</p>	<p>The guidelines and recommendations referenced throughout the SEA.</p> <p>It will be the key guidelines for the project levels developments.</p>
	<p>It should be ensured that wind energy development proposals are subject to an Environmental Impact Assessment, Appropriate Assessment including visual impact assessment.</p>	<p>This comment has been dealt with in Section 9 Mitigation Measures.</p>
	<p>The proximity of the subject lands to and the potential impact on designated national and international nature conservation sites (Natura 2000 Sites, RAMSAR Site, Natural Heritage Areas).</p>	<p>This has been addressed under various Biodiversity headings including Section 6.2 and Section 8.3.1.</p>
	<p>The requirement for an appropriate assessment in accordance with the Habitats Directive and the DoEHLG Appropriate Assessment Guidance for Planning Authorities. The potential impact on protected species-birds, bats etc., including flight paths.</p>	<p>An Appropriate Assessment Screening Report has been completed.</p> <p>Protected species surveys are recommended as a mitigation</p>

Cork County Development Plan 2009
Variation No 2: Wind Energy
Final SEA Environmental Report



Consultee	Consultee Comment	Addressed in Report
		measure at project level.
	Cork County Biodiversity Action Plan and available completed Cork County Habitat mapping.	Refer to Section 4.3, Table 4.7
	Potential for impact on aircraft flight paths to and from Cork airport.	Ringaskiddy is located beyond the outer flight restriction zone, as presented in Section 6.5 .
	Scenic Views / Designated Landscape character areas- Confirm the status and availability of a Landscape Character Assessment for Cork County. The inclusion, in particular, in the context of the proposed variation consideration of seascape and coastscape elements should be considered.	Refer to Section 6.6 and mitigation measures in Section 9 .
	The relevant environmental protection aspects of Cork Harbour Integrated Management Strategy.	Refer to Section 4.3, Table 4.7 .
Department of Environmental Heritage and Local Government	<u>Archaeological Assessments</u> Proposed developments that may have implication for the archaeological heritage should be subject to archaeological assessment.	See Mitigation Measures Section 9 .
	<u>Architectural Heritage</u> "The proposed variation of the CCDP could have a significant effect on the architectural heritage of the locality involved. It is therefore recommended that significant effects on architectural heritage is taken into account in the SEA process".	Addressed in baseline Cultural Assets Section 6.7 and Mitigation Measures Section 9 .
Department of Communications, Energy and Natural Resources	"The Department of Communications, Energy and Natural Resources have no observations/comments to make on this scoping request. This is without prejudice to any comments/observations Inland Fisheries Ireland may have in this regard."	

Cork County Development Plan 2009 Variation No 2: Wind Energy Final SEA Environmental Report



Consultee	Consultee Comment	Addressed in Report
Development Application Units - NPWS	<p>"For the avoidance of doubt, the amended wording should have the clause added as follows (in italics): "will be considered on their merits <i>and subject to compliance with Article 6 of the EU Habitats Directive</i>"</p> <p>The submission noted that in the absence of this amended wording, it is recommended that the variation be not adopted until detailed data becomes available allowing a conclusion of no adverse effects of wind turbine development within the area outlined on cork Harbour SPA.</p>	See Mitigation Measures Section 9.

The SEA Scoping process highlighted the issues that needed to be addressed in the Environmental Report (see **Appendix B**). It also identified the issues which could be scoped out and did not require further attention in the Environmental Report (see **Section 3.3.2** below).

Cork County Development Plan 2009

Variation No 2: Wind Energy

Final SEA Environmental Report



3.3.2 Scoping out Environmental Topics

Environmental Aspects	Potential Positive or Negative Effects	Scoping Summary
Biodiversity, Flora & Fauna	There is a potential for a negative impact on the internationally important wintering waterbird populations in Cork Harbour SPA due to the presence of wind turbines in Ringaskiddy.	Due to potential negative impacts on wintering waterbirds, biodiversity, flora and fauna is scoped in .
Population & Human Health	<p>There may be some noise or shadow flicker effects of turbines which may have a negative impact on the local population.</p> <p>Overall reduction in use of fossil based fuel sources for energy production may reduce air pollution – having a positive impact on human health in the locality of power plants.</p> <p>An increase in energy security for manufacturing plants in the Ringaskiddy area will have a positive effect on employment in the Cork Region.</p>	At local level with regards to noise and shadow flicker effects and at a Cork regional scale of secured employment and a reduction of fossil fuel emissions helping human health in energy production areas, it is considered that population and human health is scoped in .
Water	No significant negative or positive effects on water have been identified in the scoping study.	As no significant negative or positive effects on water have been identified, water is scoped out .
Air & Climate	There is a potential for reduction in carbon emissions due to use of wind energy and a reduction in use of fossil fuels. This could have a significant positive effect.	Air and climate is scoped in due to positive effects on climate change of using wind energy.
Soils	No significant negative or positive effects on soils have been identified in the scoping study.	As no significant negative or positive effects on soils have been identified, soils are scoped out .
Material Assets	Potential interference with air flight path	Due to potential negative impacts

Cork County Development Plan 2009 Variation No 2: Wind Energy Final SEA Environmental Report



Environmental Aspects	Potential Positive or Negative Effects	Scoping Summary
	lines, broadcast communications and overhead power lines. Therefore there is potential for negative effects.	on infrastructure, material assets is scoped in .
Landscape & Landuse	Due to the high value landscape and landscape sensitivity, there is potential for negative impact.	Due to potential negative impacts on the landscape of the Cork Harbour, landscape and land use is scoped in .
Cultural Heritage, including Architectural and Archaeological Heritage	Due to the presence of protected monuments there is potential for negative impact if turbines are insensitively placed in relation to these monuments. Buildings considered to be Architectural Heritage importance are located in the area and may be affected by the turbines.	Due to potential negative impacts on cultural heritage, this category is scoped in .

3.4 Consultation - Environmental Report

The SEA Environmental Report and the Proposed Variation (along with the Natura Impact Report (formally called Natura Impact Statement) were made available for public viewing between the 1st October - 29th October 2010. Submissions and observations were invited from the Environmental Authorities, the Prescribed Bodies and interested parties

Following on from the public consultation, the submissions were compiled by the Council in a Manager's Report which identified the main issues in the submissions, a response to the issues raised and a recommendation to the Council as to the adoption of the variation *i.e.* Members of the Council at this stage decided on whether to formally vary the wind energy policy in the Cork County Development Plan 2009. It was at this stage of the process the Council decided to make the Variation, without any modifications.

3.5 Adoption of the Variation & the SEA Statement

The SEA Statement is the final document which draws together the SEA process and summaries how the environmental considerations have been integrated into the Variation. It also summarises how the submissions on the Environmental Report have been taken into account during the preparation of the Variation; the reasons for choosing the Variation (as adopted) in light of other reasonable alternatives

Cork County Development Plan 2009 Variation No 2: Wind Energy Final SEA Environmental Report



considered and outlines the monitoring programme proposed to monitor the effects of the implementations of the Variation.

The Variation to the Cork County Development Plan 2009 was adopted and came into effect on the 13th December 2010. The SEA Statement has been prepared in accordance with section 13(I)(1) of the Planning and Development (Strategic Environmental Assessment) Regulations 2004 S.I. 436. The main purpose of the SEA Statement is to provide information on the decision-making process making the process more transparent. It must be made available to the public to accompany the Adopted Variation to the Plan.



4 Proposed Variation to the Cork County Development Plan 2009-2015

4.1 Proposed Variation

"The context for including specific renewable energy policies in a County Development Plan is set by a range of national and international initiatives and targets. It is a subject, which is at the core of the entire sustainable development idea. A gradual shift towards using renewable energy would mean:

- Reduced CO₂ emissions;
- Secure and stable energy supply for the long term;
- Reduced reliance on expensive fuel imports;
- Investment and employment in our indigenous renewable energy projects, often in rural and underdeveloped areas". (CCDP Section 6.7.6.)

With the potential for wind generated electricity to reduce the reliance of large scale industry on fossil fuel generated electricity, Cork County Council proposed to allow large scale proposals for wind energy to be considered in areas that have already been identified as appropriate for 'large scale industrial development'. Objective ECON 3-2 of the County Development Plan 2009 identifies five large scale industrial development areas, namely Ringaskiddy, Whitegate, Carrigtwohill, Kilbarry, and Little Island.

The 2009 objective relating to wind energy (INF 7-4) is presented in **Table 4.1** below:

Table 4.1: 2009 Wind Energy Objective INF 7-4

Wind Energy Projects

- a) It is an objective to encourage prospective wind energy businesses and industries. In assessing potentially suitable locations for projects, potential wind farm developers should focus on the strategic search areas identified in the Plan and generally avoid wind energy projects in the strategically unsuitable areas identified in this Plan.
- b) It is an objective to support existing and established businesses and industries who wish to use wind energy to serve their own needs subject to proper planning and sustainable development.
- c) It is an objective in the strategic search areas (and in those areas that are identified **as neither strategic search areas nor strategically unsuitable areas**), to consider new, or the expansion of existing, wind energy projects on their merits having regard to normal planning criteria including, in particular, the following:

Cork County Development Plan 2009

Variation No 2: Wind Energy

Final SEA Environmental Report



Table 4.1: 2009 Wind Energy Objective INF 7-4

1. The sensitivity of the landscape and of adjoining landscapes to wind energy projects;
 2. The scale, size and layout of the project, any cumulative effects due to other projects, and the degree to which impacts are highly visible over vast areas;
 3. The visual impact of the project on protected views and prospects, and designated scenic landscapes as well as local visual impacts;
 4. The impact of the project on nature conservation, archaeology and historic structures;
 5. Local environmental impacts including noise and shadow flicker;
 6. The visual and environmental impacts of associated development such as access roads, plant, grid connections etc.
 7. The proximity and sensitivity of a recognised settlement,
 8. The impact of the project on archaeology and historic structures,
 9. The impact of nature conservation, in particular avoiding designated and proposed European sites.
- d) Similar criteria would be taken into account in the strategically unsuitable areas except that suitable projects will generally be on a smaller scale and on very special, carefully chosen sites.

'Strategic Search Areas' and 'Strategically Unsuitable Areas' are defined in the CCDP as follows:

- **STRATEGIC SEARCH AREAS:** Areas which have both relatively high wind speeds and relatively low landscape sensitivity to wind projects. These could be considered to be strategic 'search areas' for wind farm development. Prospective developers would be encouraged generally to focus on these areas when searching for potentially suitable sites in County Cork. While not all locations within these areas would be suitable for wind projects, they do give a strategic representation of generally preferred areas.
- **STRATEGICALLY UNSUITABLE AREAS:** Areas which, because of high landscape sensitivity, are considered generally to be unsuitable for wind energy projects. While there may be a small number of locations within these areas with limited potential for small-scale wind projects, their contribution to any significant reduction in greenhouse gas emissions would be negligible. Except on a small scale and at particularly suitable locations, wind projects would normally be discouraged in these areas.

The large scale industrial development area of Whitegate, Carrigtwohill, Kilbarry and Little Island are neither part of the Strategic Search Areas nor the Strategically Unsuitable Areas so, as far as wind energy objective INF 7-4 is concerned, wind energy proposals are considered on their merits in relation to the criteria and other planning considerations.

Cork County Development Plan 2009

Variation No 2: Wind Energy

Final SEA Environmental Report



Ringaskiddy, however, is located within a **Strategically Unsuitable Area** where wind energy proposals, although not ruled out, will generally be small in scale. It is the County Council's view that this policy position in relation to wind energy at Ringaskiddy is inconsistent with the other objectives for Ringaskiddy *i.e.* as a location for large scale industry and in relation to encouraging business and industry generally to increase its use of wind energy.

Therefore, the County Council considered making a variation to the County Development Plan 2009 so that, in line with the approach already taken with regard to other areas identified for large scale industry, Ringaskiddy is neither within an Area of Strategic Search nor in a Strategically Unsuitable Area for wind energy (**Table 4.2** and **Table 4.4** below). The effect of this variation will be to enable wind energy proposals, of any scale, at Ringaskiddy to be considered on their merits in relation to the criteria set out in objective INF 7-4 and other proper planning considerations.

There would be no change to the treatment of wind energy proposals in the other locations identified as suitable for large scale industrial development by objective ECON 3-2 (**Table 4.3**).

Table 4.2: Proposed Variation to the Development Plan Wind Energy Objective INF 7-4
(Note: Red bold and underlined denotes Proposed Variation)

Wind Energy Projects

- a) It is an objective to encourage prospective wind energy businesses and industries. In assessing potentially suitable locations for projects, potential wind farm developers should focus on the strategic search areas identified in the Plan and generally avoid wind energy projects in the strategically unsuitable areas identified in this Plan.
- b) It is an objective to support existing and established businesses and industries who wish to use wind energy to serve their own needs subject to proper planning and sustainable development. **In particular, because of the potential for wind generated electricity to reduce the reliance of large scale industry on fossil fuel generated electricity, proposals located within the areas identified as suitable locations for large scale industrial development in Objective ECON 3-2 of this plan will be considered on their merits.**
- c) It is an objective in the strategic search areas (and in those areas that are identified as neither strategic search areas nor strategically unsuitable areas), to consider new, or the expansion of existing, wind energy projects on their merits having regard to normal planning criteria including, in particular, the following:
 1. The sensitivity of the landscape and of adjoining landscapes to wind energy projects;
 2. The scale, size and layout of the project, any cumulative effects due to other projects, and

Cork County Development Plan 2009 Variation No 2: Wind Energy Final SEA Environmental Report



**Table 4.2: Proposed Variation to the Development Plan Wind Energy Objective INF 7-4
(Note: Red bold and underlined denotes Proposed Variation)**

<p>the degree to which impacts are highly visible over vast areas;</p> <p>3. The visual impact of the project on protected views and prospects, and designated scenic landscapes as well as local visual impacts;</p> <p>4. The impact of the project on nature conservation, archaeology and historic structures;</p> <p>5. Local environmental impacts including noise and shadow flicker;</p> <p>6. The visual and environmental impacts of associated development such as access roads, plant, grid connections etc.</p> <p>7. The proximity and sensitivity of a recognised settlement,</p> <p>8. The impact of the project on archaeology and historic structures,</p> <p>9. The impact of nature conservation, in particular avoiding designated and proposed European sites.</p> <p>d) Similar criteria would be taken into account in the strategically unsuitable areas except that <u>(other than in areas to which Objective ECON 3-2 relates)</u> suitable projects will generally be on a smaller scale and on very special, carefully chosen sites.</p>

Table 4.3: Industry Objective Econ 3-2

Econ 3-2	<p>Locations for Large-Scale Industrial Development:</p> <p>It is an objective to ensure that sufficient and suitable land is zoned for sustainable large-scale and general industry taking into account the objectives of this plan (including development to meet the likely needs of the chemical, pharmaceutical and oil refining sectors) at the major employment centres of Ringaskiddy, Whitegate, Carrigtwohill, Kilbarry and Little Island. Such land will, normally, be protected from inappropriate development that would prejudice its long-term development for these uses.</p>
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In addition, there was a Proposed Variation to the definition of Strategically Unsuitable Areas, as outlined below;



Table 4.4: Proposed Variation to the definition of Strategically Unsuitable Areas
 (Note: Red bold and underlined denotes Proposed Variation)

Areas which, because of high landscape sensitivity, are considered generally to be unsuitable for wind energy projects. While there may be a small number of locations within these areas with limited potential for small-scale wind projects, their contribution to any significant reduction in greenhouse gas emissions would be negligible. Except on a small scale and at particularly suitable locations, wind projects would normally be discouraged in these areas. **However, because of the potential for wind generated electricity to reduce the reliance of large scale industry on fossil fuel generated electricity, for the avoidance of doubt, the areas identified as suitable locations for large scale industrial development in Objective ECON 3-2 of this plan are excluded from these areas and wind energy proposals in the areas referred to in ECON 3-2 will be considered on their merits.**

4.2 Geographic Scope of the Variation to the Plan

The geographical scope of the variation is the area defined as Ringaskiddy in the County Development Plan as presented in **Figure 4.1** and in **Figure 4.2** below.

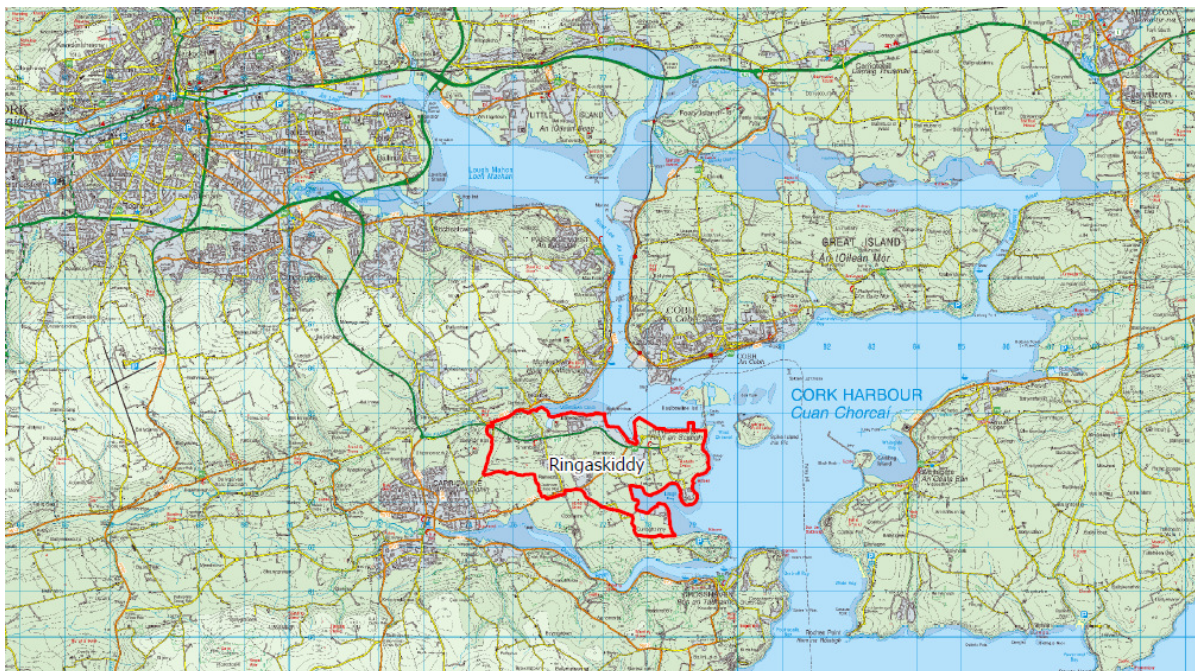


Figure 4.1: The Area Relating to the Variation (Ringaskiddy) and its Environs



Figure 4.2: Ringaskiddy as defined by the Cork County Development Plan 2009.

4.3 Relevant Plans and Programmes

As part of the SEA process the context of the Variation to the Cork County Development Plan must be established with regard to other plans and programmes that have been adopted at International, European, National, Regional and Local Levels. **Tables 4.4 to 4.7** summarises the environmental plans and programmes, adopted at International, European Community or National level, which would be expected to influence, or be influenced by the Variation to the Development Plan.

Cork County Development Plan 2009

Variation No 2: Wind Energy

Final SEA Environmental Report



Table 4.4: International Review of Legislations, Plans, Policies and Programmes

Topic	Title	Summary of Objectives	Links to this Plan	Where are these objectives addressed in this Plan?
Biodiversity	UN Convention on Biological Diversity (1992)	Objective to maintain and enhance biodiversity	Under the variation there is potential for loss of biodiversity due to displacement of wader birds and reduction in feeding habitat.	This is addressed in the Biodiversity section below (Section 6.2) which recommends that bird surveys and assessment of potential impact on bird populations for each future wind energy project is carried out along with Habitats Directive Assessment.
	The Ramsar Convention The Convention on Wetlands of International Importance (1971 and amendments)	Objectives include protection and conservation of wetlands, particularly those of importance to waterfowl as Waterfowl Habitat.	Cork Harbour is a Ramsar Site and there is potential for impact on waterfowl from the wind energy	As addressed in UN Convention on Biological Diversity (1992) above.
Climate	UN Kyoto Protocol The United Nations Framework Convention on Climate Change (UNFCCC) Kyoto Protocol 1997	Objectives seek to reduce the impacts of climate change and global emissions of GHGs.	The use of renewable energy sources by the high energy using industry will reduce reliance on carbon fuel and help reduce GHG emissions.	Less reliance on fossil fuel sources for energy will reduce the emissions of airborne pollutants and will help achieve these objectives.

Table 4.5: European Union Review of Legislations, Plans, Policies and Programmes

Topic	Title	Summary of Objectives	Links to this Plan	Where are these objectives addressed in this Plan?
Air	Air Framework Directive on Air Quality Assessment and Management (1996/62/EC)	Objectives are the protection of human health and environment by the prevention and/or	The variation to the CCDP aims to reduce the reliance on air polluting fossil fuel, in the energy intensive	Less reliance on fossil fuel sources of energy will reduce the emissions of airborne pollutants and will help achieve these objectives.

Cork County Development Plan 2009

Variation No 2: Wind Energy

Final SEA Environmental Report



Topic	Title	Summary of Objectives	Links to this Plan	Where are these objectives addressed in this Plan?
		reduction of airborne pollutants.	industries in Ringaskiddy.	
	Directive on National Emission Ceilings for Certain Atmospheric Pollutants (2001/81/EC)	Objectives are the protection of human health and environment by limiting national emissions of certain airborne pollutants	The variation to the CCDP aims to reduce the reliance on air polluting fossil fuel, in the energy intensive industries in Ringaskiddy.	Less reliance on fossil fuel sources of energy will reduce the emissions of airborne pollutants and will help achieve these objectives
Biodiversity	EU Habitats Directive (92/43/EEC)	Objectives seek to maintain and enhance current levels of biodiversity and to prevent and eliminate the causes of biodiversity loss.	The installation of turbines in Ringaskiddy area may impact on the local biodiversity.	This is addressed in the Biodiversity section below (Section 6.2) which recommends that bird surveys and assessment of potential impact on bird populations for each future wind energy project is carried out along with Habitats Directive Assessment.
	EU Birds Directive (EC/79/409)	Objectives seek to maintain and enhance current levels of bird species and to prevent and eliminate the causes of bird species and habitats loss.	The installation of turbines in Ringaskiddy area may impact on the local bird populations.	This is addressed in the Biodiversity section below (Section 6.2) which recommends that bird surveys and assessment of potential impact on bird populations for each future wind energy project is carried out along with Habitats Directive Assessment.
Climate	Second European Climate Change Programme (ECCP II) 2005	Objectives set out to implementation of the Kyoto protocol.	Variation to Plan will allow for wind energy production, resulting in a reduction in CO ₂ emissions.	Less reliance on fossil fuel energy sources by industry in Ringaskiddy will reduce the CO ₂ emissions and will help achieve these objectives
	Adapting to climate change in Europe - options for EU action {SEC (2007) 849}	Objective is to start a Europe-wide public debate and consultation on how adapted to climate change at EU level.	Variation to Plan will allow for wind energy production, resulting in a reduction in CO ₂ emissions.	Less reliance on fossil fuel energy sources by industry in Ringaskiddy will reduce the CO ₂ emissions and will help achieve these objectives.

Cork County Development Plan 2009
Variation No 2: Wind Energy
Final SEA Environmental Report



Topic	Title	Summary of Objectives	Links to this Plan	Where are these objectives addressed in this Plan?
Sustainable Development	Gothenburg Strategy (2001) Communication from the Commission on "a Sustainable Europe for a Better World"	Objectives seek to make the future development of the EU more sustainable.	The Variation to Plan will allow for wind energy production, a sustainable energy source.	The variation will allow for sustainable wind energy generation in the Ringaskiddy area.
	SEA Directive (2001/42/EC)	Objective is to provide for a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans and programmes with a view to promoting sustainable development.	Under the SEA Directive, the variation to the Cork County Development Plan requires an SEA be completed.	This SEA Environmental Report is addressing the objective of the SEA Directive.
	The EIA Directive (85/337/EEC)	Objective is to require Environmental Impact Assessment of the environmental effects of those public and private projects, which are likely to have significant effects on the environment.	Wind energy projects over a certain scale require EIAs. The EPA have requested that EIAs are completed for wind energy projects	EIA is a recommended mitigation measure presented in Section 9 .
Energy	European Energy Policy (2007) Communication from the Commission on "an energy policy for	Objective to increase the use of renewable energy sources with the target of increasing the proportion of renewable	The variation will allow for the generation of wind energy in the Ringaskiddy area which will contribute reaching the renewable	The variation of plan is intended to allow for wind energy to be developed in the Ringaskiddy area.

Cork County Development Plan 2009

Variation No 2: Wind Energy

Final SEA Environmental Report



Topic	Title	Summary of Objectives	Links to this Plan	Where are these objectives addressed in this Plan?
	Europe".	energies in the EU energy mix by 20% by 2020.	energy mix target.	
	Renewable Energy Directive (2009/28/EC)	Requires each Member State to set a binding renewable energy target, which will contribute to the achievement of the overall EU 20% renewable energy target goal by 2020.	The variation will allow for the generation of wind energy in the Ringaskiddy area which will contribute Ireland meeting its target.	The variation of plan is intended to allow for wind energy to be developed in the Ringaskiddy area.

Table 4.6: National Review of Legislations, Plans, Policies and Programmes

Topic	Title	Summary of Objectives	Links to this Plan	Where are these objectives addressed in this Plan?
Air	Air Quality Standards Regulations 2002 (S.I. No. 271 of 2002)	Objectives are to protect human health and the environment by the reduction of certain airborne pollutants.	The variation aims to reduce the reliance on air polluting fossil fuel.	Less reliance on fossil fuel sources of energy will reduce the emissions of airborne pollutants and will help achieve these objectives.
	EPA Act 1992 (Ambient Air Quality Assessment and Management) Regulations 1999	Objectives are to protect human health and the environment by the reduction of certain airborne pollutants.	The variation aims to reduce the reliance on air polluting fossil fuel.	Less reliance on fossil fuel sources of energy will reduce the emissions of airborne pollutants and will help achieve these objectives.
Biodiversity	National Biodiversity Plan (2002)	Main objectives are the enhancement and conservation of biodiversity.	The installation of turbines in Ringaskiddy area may impact on the local biodiversity.	This is addressed in the Biodiversity section below (Sections 6.2, 8.2 and 9). In particular it is recommends that bird surveys and assessment of potential impact on bird populations for future wind energy project is

Cork County Development Plan 2009
Variation No 2: Wind Energy
Final SEA Environmental Report



Topic	Title	Summary of Objectives	Links to this Plan	Where are these objectives addressed in this Plan?
				carried out, along with Habitats Directive Assessment.
	Wildlife Act 1976. Wildlife (Amendment) Act 2000	The principal statutory protection of Wildlife (both Flora and Fauna) and the control of activities which may impact adversely on the conservation of Wildlife.	The installation of turbines in Ringaskiddy area may impact on the local flora and fauna.	Refer to National Biodiversity Plan (2002) above.
	EC (Natural Habitats) Regulations, SI 94/1997, as amended SI 233/1998 and SI 378/2005	These Regulations give effect to the Habitats Directive (92/43/EEC). It allows for the Minister to designate special areas of conservation (endangered species and habitats of endangered species) as a contribution to an EU Community network to be known as NATURA 2000.	The adjacent estuary is a Natura 2000 site. The installation of turbines in Ringaskiddy area may impact on the Natura 2000 site.	Refer to National Biodiversity Plan (2002) above.
Cultural Heritage	National Monuments Act 1930 to 2004	Objectives are to protect monuments of nationally important due to their historic, architectural, traditional, archaeological and artistic interests.	A number of protected monuments are located in the Ringaskiddy area.	Archeological and Architectural surveys are recommended for each project, as outlined in Section 9.
	Architectural Heritage (National Inventory) and Historic Monuments (Miscellaneous Provisions) Act 1999	This Act established the National Inventory of Architectural Heritage (NIAH), which has the objective for the protection and conservation of built heritage.	A number NIAH structures are present in the Ringaskiddy area.	Archeological and Architectural surveys are recommended for each project, as outlined in Section 9 .

Cork County Development Plan 2009
 Variation No 2: Wind Energy
 Final SEA Environmental Report



Topic	Title	Summary of Objectives	Links to this Plan	Where are these objectives addressed in this Plan?
Climate	National Climate Change Strategy (2000) and National Climate Change Strategy 2007-2012	The main objectives are the reduction of national GHG emissions. Ireland's overall target is to achieve 16% of energy from renewable sources by 2020.	Variation to Plan will allow for wind energy production, resulting in a reduction in CO2 emissions.	Less reliance on fossil fuel energy sources by industry in Ringaskiddy will reduce the CO ₂ emissions and will help achieve these objectives.
Energy	Energy Policy Framework 2007 - 2020: 'Delivering a sustainable energy future for Ireland'	Objectives are to ensure safe and secure energy supplies, promoting a sustainable energy future, and supporting competitiveness.	The production of sustainable wind energy will add to the security of Ireland's energy supply.	Less reliance on imported fossil fuel energy sources by industry in Ringaskiddy will help achieve these objectives.
	National Renewable Energy Action Plan (2010)	Target of 16% of energy from renewable sources by 2020 and is in line with Ireland's obligations under the Renewable Energy Directive (2009/28/EC).	The production of sustainable wind energy in Ringaskiddy will help Ireland achieve this target.	Less reliance on imported fossil fuel energy sources by industry in Ringaskiddy will help achieve these objectives

Cork County Development Plan 2009 Variation No 2: Wind Energy Final SEA Environmental Report



Table 4.7: Regional and Local Review of Legislations, Plans, Policies and Programmes

Title	Summary of Objectives	Links to this Plan	Where are these objectives addressed in this Plan?
Cork County Development Plan 2009 - 2015	The Cork County Development Plan 2009-2015 sets out an overall strategy for the proper planning and sustainable development of County Cork.	The variation is an amendment of the Cork County Development Plan.	This Environmental Report addresses the CCDP directly.
Carrigaline Electoral Area Local Area Plan (LAP) 2005	The Carrigaline Electoral Area Local Area Plan (LAP) 2005 considers the proper planning and sustainable development of Carrigaline Electoral Area which includes the coastal and harbour settlements of Crosshaven and Ringaskiddy and the satellite towns of Passage West, Ballincollig, and Carrigaline and must be consistent with the overall policies of the County Development Plan. The Carrigaline Electoral Area Local Area Plan Review Outline Strategy 2010 - 2020 was published in December 2009 for public consultation and is also considered in this SEA.	Ringaskiddy is located within the Carrigaline LAP area. A key objective of the LAP is the "re-affirmation of and provision for its strategic industrial and port related roles".	The provision of wind energy in Ringaskiddy will allow for the continued use and expansion of industry in the Ringaskiddy Area.
Cork Area Strategic Plan (CASP)	This plan was prepared jointly by the City and County Councils in 2001 to set out a shared vision for the Cork area for the period up to the year 2020. The plan establishes the concept of 'Metropolitan Cork' as an area embracing Cork City, its 'environs' (within the County) and the Metropolitan (or satellite) towns as an	Objective for Ringaskiddy is "Growth in the Ringaskiddy area should be limited to port related activities or industries, or complementary uses".	The variation will allow for wind energy generation in Ringaskiddy which will encourage the growth and retention of industry in the area.

Cork County Development Plan 2009

Variation No 2: Wind Energy

Final SEA Environmental Report



Title	Summary of Objectives	Links to this Plan	Where are these objectives addressed in this Plan?
	integrated unit where there is a single market for jobs and housing and where there is equality of access for all to shops and services, educational and cultural facilities.		
County Cork Heritage Plan 2005-2010	Objectives are: to raise awareness and to promote appreciation and enjoyment of the heritage of Co. Cork; to develop and encourage best practice in relation to the management and care of heritage in Co. Cork and to deliver practical actions to achieve this; to gather and disseminate information about heritage in Co. Cork.	There are a number of cultural heritage site and structures in the Ringaskiddy area.	This is addressed in the Cultural Heritage, including Architectural and Archaeological Heritage sections of this report (Section 6.7, 8.2 and 9).
County Cork Biodiversity Action Plan 2009-2014	Objectives are: to review biodiversity information for County Cork and to priorities habitats and species for conservation action; to collect data and use it to inform conservation action and decision making; to incorporate positive action for biodiversity into local authority actions and policy; to promote best practice in biodiversity management and protection; to facilitate the dissemination of biodiversity information; to raise awareness of County Cork's biodiversity and encourage people to become involved in its conservation.	The adjacent estuary is an important biodiversity site in the Cork Harbour. The key BAP objective is to promote the best practice in biodiversity management and protection.	This is addressed in the Biodiversity section below (Sections 6.2, 8.2 and 9). In particular it is recommends that bird surveys and assessment of potential impact on bird populations for future wind energy project is carried out, along with Habitats Directive Assessment.
Cork County Draft Landscape Strategy	Aims to provide an explanation of Cork County's landscape by way of describing	Ringaskiddy, part of Cork Harbour, is recognised in the Landscape strategy	Landscape is addressed in Sections 6.6, 8.2 and 9 .

Cork County Development Plan 2009
 Variation No 2: Wind Energy
 Final SEA Environmental Report



Title	Summary of Objectives	Links to this Plan	Where are these objectives addressed in this Plan?
2007	what the landscape actually entails, while highlighting how areas within the county have their own distinctiveness and character.	as being a nationally important landscape.	
Cork Harbour Integrated Management Strategy (CHIMS) 2008	Key objective are to protect and promote the unique natural environment of the Harbour and to promote the economic development of the Harbour in line with the principles of sustainable development.	Focus of CHIMG is on education and information gathering of natural heritage of harbour. This will not be affected by the variation. Provision of wind energy will help promote economic development in the Harbour	Ecological studies required for wind energy projects will add to the knowledge base of ecology in the Harbour. Wind energy is a sustainable resource in line with the CHIMS objective.



5 Assessment of Alternatives

5.1 Introduction

Article 5 of the SEA Directive requires the Environmental Report to consider “*reasonable alternatives taking into account the objectives and the geographical scope of the plan or programme*”. The guidelines state that the significant environmental effects of the alternatives selected also need to be considered.

The consideration of alternatives is an important part of the SEA process. The aim of the consideration of alternatives is to look at differing ways to achieve a stated objective or intention. Through considering alternatives, it may be possible to achieve the overall goal whilst minimising environmental effects.

Two alternative strategies were considered during the preparation of the Environmental Report for Public Consultation:

3. Do Nothing Scenario;
4. The Proposed Variation (now the Adopted Variation).

The alternative strategies are considered in detail below.

5.1.1 Do Nothing Scenario

The ‘Do Nothing Scenario’ would result in Ringaskiddy remaining designated as a ‘Strategically Unsuitable Areas’ for wind energy proposals. Based on the wind energy policy of the Cork County Development Plan it would not be possible to develop large wind energy infrastructure in the area. This will result in an incompatibility with other objectives of the Plan, particularly as the designation of Ringaskiddy as an area suitable for large scale industrial development, as presented in Objective ECON 3-2. This could have long term consequences for Ringaskiddy as a major employer for the Cork region due to inflexibility in allowing local industry to develop wind energy infrastructure.

At present the main land use in Ringaskiddy is a mixture of industry/commercial enterprises and agriculture. The main concentration of industrial activity is along the coastline (light blue areas) as presented in **Figure 5.1** below. However, the majority of the other parts of Ringaskiddy are zoned for industry/enterprise (dark blue) which are at the moment agricultural lands. Even without the inclusion of wind energy, it is likely that Ringaskiddy will develop further as an industrial zone, although at a potentially compromised state.

Cork County Development Plan 2009 Variation No 2: Wind Energy Final SEA Environmental Report



The environmental implications of this scenario have been dealt with for each environmental aspect in **Chapter 6** Current State of the Environment.

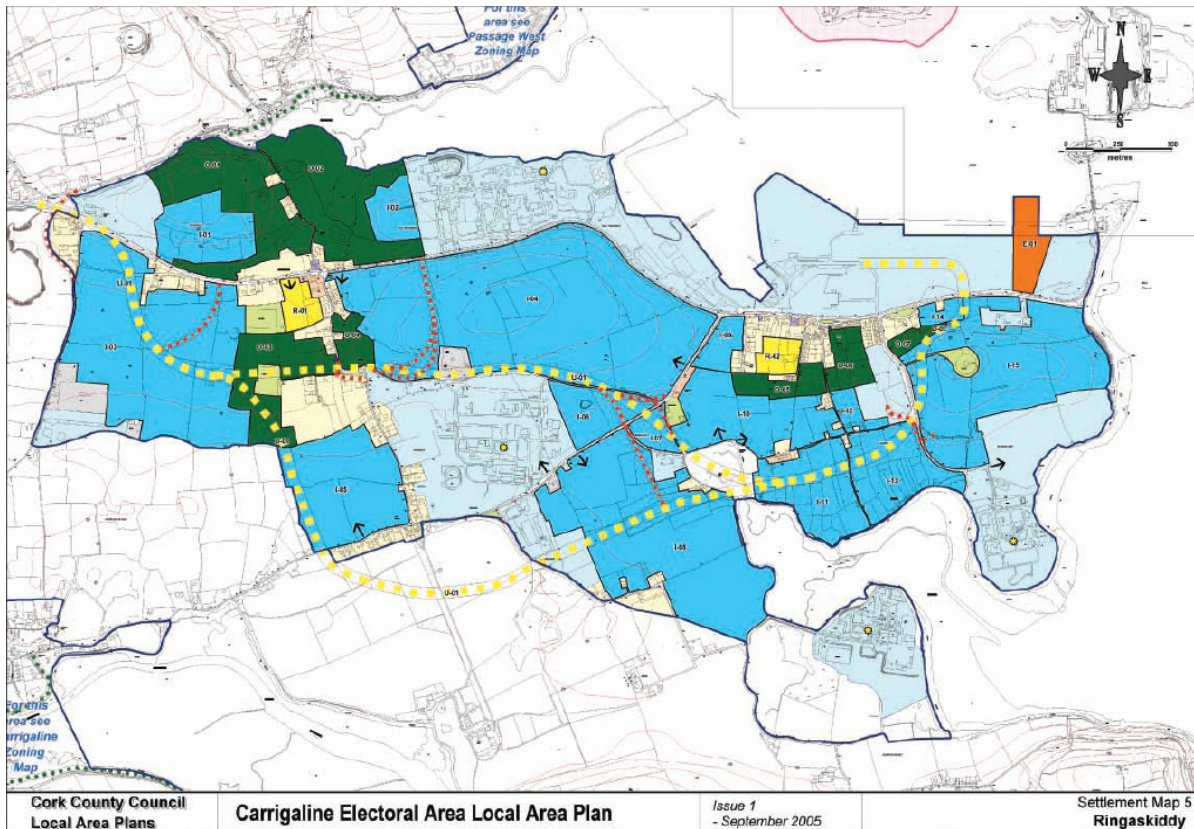


Figure 5.1: Zoning map of Ringaskiddy. Light blue are current industrial areas and dark blue are zoned for industry/enterprise (Carrigaline Electoral Area Local Area Plan 2005).

5.1.2 The Proposed Variation

The Proposed Variation (now Adopted Variation) involved changing the Cork County Development Plan to enable wind power proposals located within the areas identified as suitable locations for large scale industrial development in Objective ECON 3-2 of the Cork County Development Plan 2009, which Ringaskiddy is part of, to be considered on their merits (See **Section 4** for more details).

Cork County Development Plan 2009 Variation No 2: Wind Energy Final SEA Environmental Report



5.2 Assessment of Options

This section assesses each alternative against the environmental aspects using the assessment criteria as outlined below:

- Potentially Significant Positive Environmental Effect (+),
- Potentially Significant Negative Environmental Effect (–),
- No Significant Environmental Effect or Insignificant Impact (/),
- Uncertain Effect (?).

5.2.1 Do Nothing Scenario

A Do Nothing Scenario will result in large wind turbines generally not being constructed in the Ringaskiddy area. The impact of this is summarised below:

Environmental Aspect	Impact	Summary
Biodiversity, Flora Fauna	/	On a local scale there will be little change to biodiversity if the wind energy is not developed at Ringaskiddy.
Population & Human Health	–	If wind energy generation is not permitted the cost of energy and lack of security of supply may hinder further employment growth in Ringaskiddy, which could impact the Cork regional economy. Although fossil fuel burning power plants are not present in Ringaskiddy itself, a continued burning of fossil fuels at power plants, including in other sites in Cork Harbour, will result in pollution having a negative impact on the health of residents close to power plants.
Air & Climate	–	To help comply with the UN Kyoto protocol and other related policies on Climate Change, it is an EU policy, through the Renewable Energy Directive (2009/28/EC) that by 2020, Member States will generate 20% of their energy from renewable sources. Industry in Ringaskiddy is a heavy energy user. If wind energy generation is not facilitated in the area the industry will continue to source energy from fossil fuels. This will mean that it will be more difficult for Ireland to reach its renewable usage targets.

Cork County Development Plan 2009

Variation No 2: Wind Energy

Final SEA Environmental Report



Environmental Aspect	Impact	Summary
Material Assets	/	If the variation is not made there will be no change to the material assets of the area.
Landscape & Land use	/	If the variation is not made there will be no change to the landscape and land use of the area.
Cultural Heritage, including Architectural and Archaeological Heritage	/	If the variation is not made there will be no change to the cultural heritage, Architectural and Archaeological Heritage of the area.

5.2.2 Proposed Variation

The Proposed Variation will facilitate all areas identified as suitable for large scale industrial development in ECON 3-2 to be considered for wind energy on their merits.

Environmental Aspect	Impact	Summary
Biodiversity, Flora Fauna	-	All areas identified as being "suitable locations for large scale industrial development" are located close to Cork Harbour SPA for winter wading birds. Depending on the scale and location of wind turbines, there may be negative impact on wading bird populations.
Population & Human Health	?	Noise and/or shadow flicker effects of turbines may potentially have a negative impact on the local population. A reduction in energy production costs and increase in energy security for current and prospective industry in Ringaskiddy will help secure employment in the Cork region. This will have a positive affect on the regional population and economy. A reduction in the use of fossil fuels will have a positive affect on the health of people living close to power plants.
Air & Climate	+	To help comply with the UN Kyoto protocol and other related policies

Cork County Development Plan 2009

Variation No 2: Wind Energy

Final SEA Environmental Report



Environmental Aspect	Impact	Summary
		on Climate Change, it is an EU policy, through the Renewable Energy Directive (2009/28/EC) that by 2020, Member States will generate 20% of their energy from renewable sources. As Ringaskiddy industry is a high energy user, the use of wind energy may make a significant contribution to Ireland reaching this target.
Material Assets	?	Potential for interference with communication infrastructure, <i>e.g.</i> airline flight lines, overhead power lines and broadcast communication. Impact on other transport infrastructure is not likely.
Landscape & Land use	–	Cork Harbour, which includes Ringaskiddy, is a nationally important landscape as per the Cork Landscape Strategy. Four scenic routes, identified in the Cork County Development Plan, are located in the area. The landscape value of Ringaskiddy and Cork Harbour may be compromised by insensitive positioning of wind turbines, Land use will not be significantly affected as Ringaskiddy is already heavily industrialised and most of the rest of the area is zoned industrial.
Cultural Heritage, including Architectural and Archaeological Heritage	–	A number of national monuments and other important cultural heritage artefacts are located in and around Ringaskiddy. The insensitive positioning of wind energy infrastructure has the potential to have a negative impact on the local cultural heritage.

5.3 Conclusion

The Do Nothing Scenario will not allow large wind energy projects to occur in the industrial areas of Ringaskiddy and will not contribute to Ireland's obligations under the Renewable Energy Directive (2009/28/EC) that by 2020, Member States will generate 20% of their energy from renewable sources. The Do Nothing Scenario will also not help contribute towards reducing greenhouse gas emissions and combating Climate Change. Hence, this scenario is not recommended.

Cork County Development Plan 2009 Variation No 2: Wind Energy Final SEA Environmental Report



Therefore, the Proposed Variation to the Plan, to remove the classification of Ringaskiddy as a 'Strategically Unsuitable Area', was the preferred strategy. The Proposed Variation to the Plan will help Ireland comply with the UN Kyoto protocol and other Climate Change policies and also the Renewable Energy Directive (2009/28/EC) that states that Member States must generate 20% of their energy from renewable sources by 2020.

Cork County Development Plan 2009

Variation No 2: Wind Energy

Final SEA Environmental Report



6 Current State of the Environment

6.1 Background

This section outlines the relevant existing baseline environmental conditions for the Proposed Variation (now Adopted Variation). This section also highlights any existing environmental problems within the Ringaskiddy area. This section also looks at the future baseline without the Proposed Variation, for each environmental aspect. The **predicted impacts** of the Proposed Variation on the environment are dealt with in **Chapter 8**.

The desk study data gathered data from the following online resources:

- National Parks and Wildlife Service (DoEHLG); (www.npws.ie)
- Record of Monuments and Places (DoEHLG); (www.archaeology.ie)
- EPA databases (*e.g.* groundwater and surface water quality etc.); (www.epa.ie)
- Geological Survey of Ireland (GSI) mapping, including groundwater maps; (www.gsi.ie)
- Corine and Landcover Land Use Databases; (www.epa.ie)
- Air Quality Archive; (www.epa.ie)

Additional information was obtained in the following sources:

- BirdWatch Ireland I-WeBS data;
- Carrigaline Electoral Area Local Area Plan 2005
- Carrigaline Electoral Area Local Area Plan Review Outline Strategy 2010 – 2020
- Cork County Development Plan 2009 – 2015
- NATURA Environmental Consultants (2010) Proposed Windfarm Development at Ringaskiddy and Lough Beg, Co. Cork – *Avian Impact Assessment – Winter Bird Surveys 2009/2010 for the Lower Harbour Energy Group*. Progress Report3, April 2010.
- Arup Consulting Engineers (2008) Indaver *Waste-to-Energy Facility, Ringaskiddy Environmental Impact Statement* – November 2008, Cork.

6.2 Biodiversity, Flora & Fauna

6.2.1 Current Baseline

There are no environmental designations or protected areas within Ringaskiddy but there are two Natura 2000 sites within 15 km of Ringaskiddy and these are the Cork Harbour Special Protection Area (site code: 004030) and the Great Island Channel Special Area of Conservation (site code: 001058) (See **Figure 6.1**

Cork County Development Plan 2009

Variation No 2: Wind Energy

Final SEA Environmental Report



below). The Natura 2000 site network was established by the European Communities (Habitats) Directive 1992 and consists of Special Protection Areas (SPA) and Special Areas of Conservation (SAC). Special Protection Areas aim to protect birds and this designation originates from the Birds Directive. In addition, Cork Harbour is designated as Ramsar Site of international importance due to the important populations of waders.

The Great Island Channel SAC is approximately 5 km to the north of Ringaskiddy and comprises of the North Channel of Cork Harbour. It is an integral part of Cork Harbour which contains several other sites of conservation interest. Within the site is the estuary of the Owennacurra and Dungourney Rivers. The site is of major importance for sheltered tidal sand and mudflats and Atlantic salt meadows which are two habitats listed on Annex I of the EU Habitats Directive and also for its important numbers of wintering waders and wildfowl. It also supports a good invertebrate fauna.

The Cork Harbour Special Protection Area is a large sheltered bay system with several river estuaries – principally those of the Rivers Lee, Douglas and Owenacurra. The SPA comprises most of the main intertidal areas of Cork Harbour, including all of the North Channel, the Douglas Estuary, Owenboy Estuary, Inner Lough Mahon, Monkstown Creek, Lough Beg, Whitegate Bay and the Rostellan Inlet. Mudflat and other habitats within the SPA support very high numbers of wintering waterfowl, which feed on macroinvertebrates.

Cork Harbour is of major ornithological significance, being of international importance both for the total numbers of wintering birds (*i.e.* > 20,000) and also for its population of Redshank. In addition, there are at least 15 wintering species that have populations of national importance, as well as a nationally important breeding colony of Common Tern. Several of the species which occur regularly are listed on Annex I of the E.U. Birds Directive, *i.e.* Whooper Swan, Golden Plover, Bar-tailed Godwit, Ruff and Common Tern. The site provides both feeding and roosting sites for the various bird species that use it.

Two of the intertidal areas of the Cork Harbour SPA are located immediately adjacent to Ringaskiddy with Monkstown Creek located to the north and Lough Beg to the south. Both of these areas are used by qualifying interest species such as cormorant, shelduck, oystercatcher, black-tailed godwit, curlew and redshank for feeding and roosting during the winter season (NATURA Environmental Consultants, 2010).

In addition to SACs and SPAs, there are a number of proposed Natural Heritage Areas (pNHAs) within several kilometers of the Plan variation area including several intertidal areas that are also part of the Cork Harbour SPA such as Monkstown Creek pNHA (site code 001979) and Lough Beg pNHA (site code 001066).

The Plan Variation area itself is dominated by a number of habitats including industrial areas, improved agricultural grassland and tillage / arable land. The agricultural areas also contain a network of treelines and hedgerows including some mature treelines and small areas of woodland and scrub. Other habitats in

Cork County Development Plan 2009 Variation No 2: Wind Energy Final SEA Environmental Report



the Ringaskiddy area include wet grassland and amenity grassland (*i.e.* golf course). Fauna within the Ringaskiddy area includes mammals such as badger, fox and bats such as common pipistrelle (Arup Consulting Engineers, 2008).

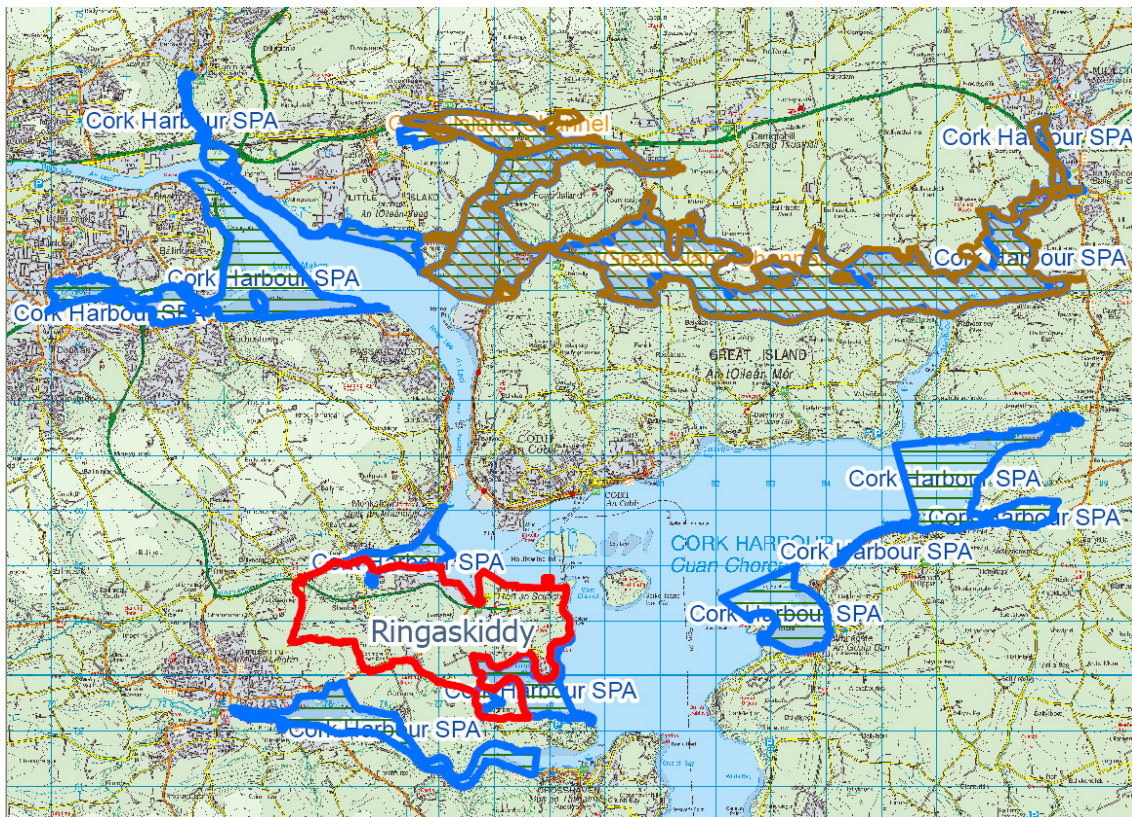


Figure 6.1: Natura 2000 sites in 15km radius of Ringaskiddy. Blue areas are Cork Harbour SPA and Brown area Great Island Channel SAC.

6.2.2 Baseline – Do Nothing Scenario

On a local scale there will be little change to biodiversity if wind energy is not developed at Ringaskiddy.

Cork County Development Plan 2009

Variation No 2: Wind Energy

Final SEA Environmental Report



6.3 Population & Human Health

6.3.1 Current Baseline

There are two main villages in the Ringaskiddy area, Shanbally and Ringaskiddy, which are both located along the N28 national primary road. There are amenity facilities in these areas including a shop, national school and church at Shanbally and post office and public house at Ringaskiddy. There are one-off houses along local roads, in particular in the east of study area with a grouping of one-off houses in the Raffeen Bridge area and local roads close to Carrigaline.

The Carrigaline Review Outline Strategy (2010) states that there is *"very limited expansion potential for residential uses because of the importance of the area for future industrial development"* and the Carrigaline Local Area Plan (LAP) considers it *"inappropriate to make provision for new housing on a large scale"*.

The Carrigaline LAP 2005 states that *"important planning issues for Ringaskiddy concern the economic importance of achieving the development of areas set aside for industry whilst protecting and enhancing the amenities enjoyed by the residential community and the area's leisure facilities."*

The CCDP states the plan for Ringaskiddy is the *"re-affirmation of and provision for its strategic industrial and port related roles; very limited expansion of residential uses with amenity improvements to the village and improvement of community and recreational facilities."* In addition the CCDP states that Ringaskiddy is classified as a "Strategic Employment Centre".

In relation to Human health, wind turbines can cause a noise nuisance and shadow flicker, which can have human health issues on a local scale.

A reduction on the reliance of burning fossil fuels for electricity will result in an improvement in air quality and local health adjacent to power plants.

An increase in energy supply security and reduction in energy costs for manufacturing plants in the Ringaskiddy area will result in a more cost competitive environment and potentially result in job security for the Cork region.

6.3.2 Baseline – Do Nothing Scenario

If wind energy generation is not permitted the cost of energy and lack of security of supply may hinder further employment growth in the Ringaskiddy, which could impact the Cork regional economy.

Cork County Development Plan 2009

Variation No 2: Wind Energy

Final SEA Environmental Report



Although fossil fuels burning power plants are not present in Ringaskiddy itself, a continued burning of fossil fuels at power plants, including in other sites in Cork Harbour will result in pollution having a negative impact on the health of residents close to power plants.

6.4 Air & Climate

6.4.1 Current Baseline

Air Quality Zone

Under the Air Framework Directive, regions of Ireland have been placed into zones. These zones are presented below:

- Zone A, B and C for Dublin, Cork and Other cities and large towns respectively.
- Zone D: Rural Ireland, i.e. the remainder of the State excluding Zones A, B and C.

Ringaskiddy is classified as Zone D – Rural Ireland. This indicates that generally the background air quality is of good quality and should be unpolluted by urbanisation.

Air Quality Index

The purpose of an air quality index is to express complex air quality information in simple terms.

Five bands are used in the Irish index:

- Very good
- Good
- Fair
- Poor
- Very poor

The index is based on a maximum of four parameters; the one-hour average of SO₂ (sulphur dioxide), NO₂ (nitrogen dioxide) and O₃ (ozone), combined with the rolling 24-hour average of PM₁₀ (particulate matter with diameter less than ten microns). The index for each of the four parameters is derived each hour and the overall index for the hour is equivalent to the lowest rating assigned to a parameter.

Index - values in parts per billion (ppb). PM₁₀ in ug m⁻³

	SO ₂ / ppb (1 hour avg.)	NO ₂ / ppb (1 hour avg.)	O ₃ / ppb (1 hour avg.)	PM ₁₀ / ug m ⁻³ (24 hour avg.)
Very Good	0 - 19	0 - 19	0 - 19	0 - 19
Good	20 - 49	20 - 49	20 - 59	20 - 49
Fair	50 - 79	50 - 74	60 - 89	50 - 74

Cork County Development Plan 2009

Variation No 2: Wind Energy

Final SEA Environmental Report



	SO ₂ / ppb (1 hour avg.)	NO ₂ / ppb (1 hour avg.)	O ₃ / ppb (1 hour avg.)	PM ₁₀ / ug m ⁻³ (24 hour avg.)
Poor	80 - 129	75 - 104	90 - 119	75 - 99
Very Poor	≥130	≥105	≥120	≥100

Index - values in ug m⁻³.

	SO ₂ / ppb (1 hour avg.)	NO ₂ / ppb (1 hour avg.)	O ₃ / ppb (1 hour avg.)	PM ₁₀ / ug m ⁻³ (24 hour avg.)
Very Good	0 - 49	0 - 36	0 - 39	0 - 19
Good	50 - 129	37 - 94	40 - 119	20 - 49
Fair	130 - 209	95 - 139	120 - 179	50 - 74
Poor	210 - 349	140 - 199	180 - 239	75 - 99
Very Poor	≥350	≥200	≥240	≥100

(Above text and table from EPA website)

The EPA conducted air monitoring at Monkstown in Cork Harbour between August 2007 and March 2008 for PM₁₀, NO_x, SO_x, CO and metals. Monkstown is located approximately 1 km north of Ringaskiddy. The overall air quality was classified by the EPA as **'Good'**.

6.4.2 Baseline – Do Nothing Scenario

It is unlikely that there will be a change in the local air quality as a result of no change in energy source as all energy is generated outside of the Ringaskiddy area.

To help comply with the UN Kyoto protocol and other related policies on Climate Change, it is an EU policy, through the Renewable Energy Directive (2009/28/EC) that by 2020, Member States will generate 20% of their energy from renewable sources. Industry in Ringaskiddy is a heavy energy user. If wind energy generation is not facilitated in the area the industry will continue to source energy from fossil fuels. This will mean that it will be more difficult for Ireland to reach its renewable usage targets.

6.5 Material Assets (Infrastructure)

6.5.1 Current Baseline

Ringaskiddy is an important industrial area and as such has significant infrastructure. The N28 National Primary road runs in an east west direction along the northern part of Ringaskiddy and connects Ringaskiddy with Cork city and beyond. The R613 regional road connects Ringaskiddy with Carrigaline and there are also a number of local roads in the area. A car ferry terminal is located at the deep water port.

Cork County Development Plan 2009

Variation No 2: Wind Energy

Final SEA Environmental Report



Ringaskiddy is a major industrial district. A number of pharmaceutical facilities operate in Ringaskiddy Area and the Lower Harbour, including Pfizer Ringaskiddy, Pfizer Lough Beg, DePuy, GSK, Centocor and Novartis. Other industries in the area are Hammon Lane Metal, Crosbie Trans Car Depot and the Ringaskiddy deepwater port with associated car ferry. In addition, the National Maritime College of Ireland is located in the area and the Irish Navy base is located on Haulbowline Island, immediately north east of the area. Another infrastructural facility is a limestone quarry located in the eastern part of the Ringaskiddy area.

The Windfarm Planning Guidelines (DEHLG) recommends consideration of the following:

- Air traffic flight lines;
- Overhead power lines;
- Broadcast communications.

Air traffic flight lines

A review of the Cork Airport Special Local Area Plan (SLAP) indicates that Ringaskiddy is not within the outer flight path safety zone, as presented in **Figure 6.2** below. Therefore, there will be no restrictions on windfarm developments due to flight lines. It is recommended by the Windfarm Planning Guidelines that at a project level the Irish Aviation Authority should be consulted at the pre-planning stage.

Overhead power lines

There are a number of overhead power cables in the Ringaskiddy area which supply electricity to the manufacturing facilities as presented in **Figure 6.3** below. Adequate clearance between overhead power lines and wind turbines must be considered. There is a statutory obligation to notify the electricity distributor of proposed developments within 23 metres of any transmission or distribution line. It is considered that overhead power lines can be assessed at a project level.

Broadcast communications

Wind turbines produce electromagnetic radiation and can interfere with broadcast communications. This interference can be overcome by the installation of deflectors or repeaters. Radio, television and mobile phone masts may be in the area. It is considered that broadcast communications can be assessed at a project level.

Seveso sites

There are four Seveso sites within the Ringaskiddy and Lower Harbour area, as presented in the Carrigaline LAP mapping. These relate to the manufacturing facilities of Pfizer Ringaskiddy, Pfizer Lough Beg, Novartis

Cork County Development Plan 2009

Variation No 2: Wind Energy

Final SEA Environmental Report



and GSK. It is not considered that the presence of Seveso site in the area will have any bearing on wind energy generation.

6.5.2 Baseline – Do Nothing Scenario

The status of Ringaskiddy as a major industrial district may be compromised if wind energy generation is not possible in the area. This is due to the concerns of local industry about energy costs and security of supply and there may be a loss of employment or a reduction of future investment in the area. This would have a negative local and regional impact.

In a Do Nothing Scenario, air traffic flight lines, overhead power lines and broadcast communications will not be affected.

Cork County Development Plan 2009
 Variation No 2: Wind Energy
 Final SEA Environmental Report

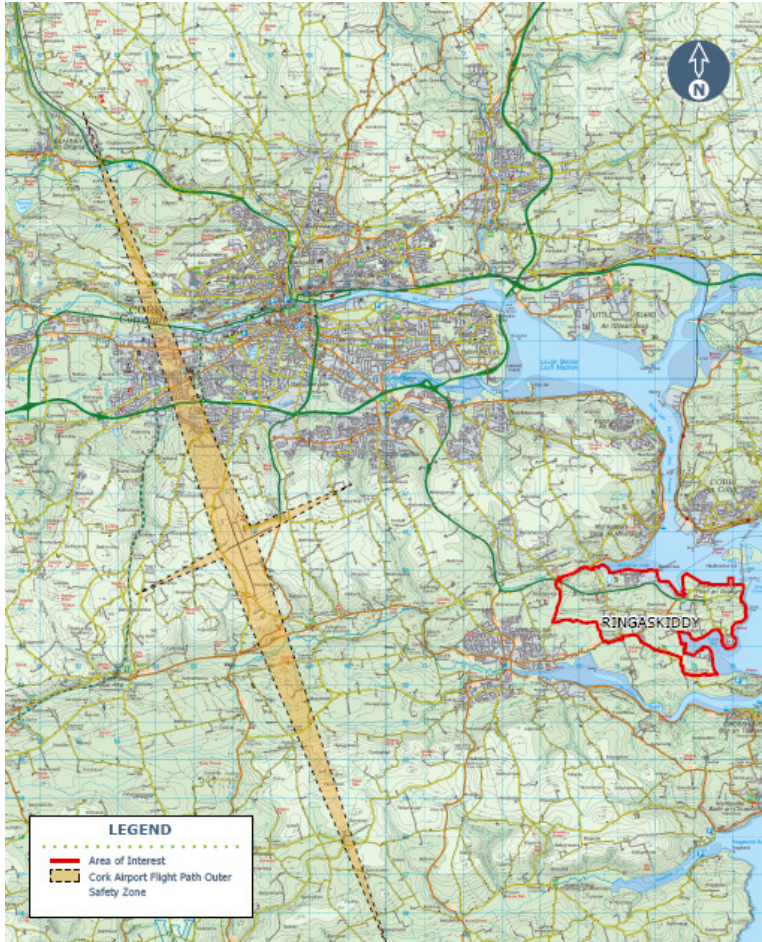


Figure 6.2: Cork Airport Outer safety zone in relation to Ringaskiddy



Figure 6.3: Overhead power cables in the Ringaskiddy area

Cork County Development Plan 2009

Variation No 2: Wind Energy

Final SEA Environmental Report



6.6 Landscape & Land Use

6.6.1 Current Baseline

Cork Harbour's landscape comprises of a "mix of rural and intensely urban areas, combined with a large expansive harbour. The western side of the harbour, which includes Ringaskiddy, supports major industrial development, while on higher ground telecommunication masts or water storage towers punctuate the skyline. The rural areas around much of the greater harbour area are now characterised by a prevalence of infrastructure such as roads, bridges and electricity power lines and some urban sprawl. The narrow harbour mouth is defined by two hilltops with old military fortifications on their summits" (Cork County Draft Landscape Strategy, 2007). The Cork County Draft Landscape Strategy identifies Cork Harbour that the "highest concentration of pharmaceutical companies in the country is located within this landscape".

The Ringaskiddy Area forms part of a peninsula located on the western side of the Lower Cork Harbour and is surrounded by estuarine waters. Monkstown Creek is located to the east and Lough Beg is located to the south east. The N28 national road runs in an east west direction along the northern part of the area. The land rises from the coast to a ridge along the centre of the peninsula, intercut with local roads. The highest point is 53m at Barnahely in the centre of the study area. A Martello Tower is located on a high point at the eastern headland, providing commanding views of the harbour and of the eastern parts of Cork Harbour.

The landscape of Ringaskiddy is dominated by intensive agriculture and manufacturing facilities. Haulbowline Island is located directly to the north and is accessed by a bridge. Further north, across the harbour is the town of Cobh and Great Island. Spike Island is located to the north east of Ringaskiddy. Ringaskiddy forms part of the views from Cobh, which take in Haulbowline Island and Spike Island, with Ringaskiddy positioned behind Haulbowline.

Previous landscape studies of Cork Harbour and Ringaskiddy

The landscape of Ringaskiddy has been addressed and assessed in a number of studies which are summarised below. These studies are:

- Cork County Draft Landscape Strategy (2007)
- County Development Plan – Scenic Landscape
- County Development Plan - Scenic Routes
- County Development Plan – Strategic Wind Energy Areas

Cork County Development Plan 2009

Variation No 2: Wind Energy

Final SEA Environmental Report



Cork County Draft Landscape Strategy (CCDLS)

Cork County Council prepared the Cork County Draft Landscape Strategy (CCDLS) in 2007. *“The draft strategy aims to provide an explanation of Cork County’s landscape by way of describing what the landscape actually entails, while highlighting how areas within the county have their own distinctiveness and character.*

Landscape Character Assessment is a process of assessment, which focuses on characterisation i.e. the discernment of the character of the landscape based on its land cover and landform but also on its values such as historical, cultural, religious and other understandings of the landscape. It concentrates on the distinctiveness of different landscapes and an understanding of how different kinds of development can be accommodated within them” (CCDLS, 2007).

An evaluation of a Landscape Character Type is completed in terms of:

- Landscape Value - the environmental or cultural benefits, including services and functions, which are derived from various landscape attributes;
- Landscape Sensitivity - the measure of a landscape’s ability to accommodate change or intervention without suffering unacceptable effects to its character and values;
- Landscape Importance - importance of a landscape rated as Local, County, or National.

The Draft Strategy describes Cork Harbour as follows - *“Overall, the landscape of the city and harbour area comprises a mix of rural and intensely urban areas, combined with a large expansive harbour. To the south of the city, the western side of the harbour supports major industrial development, while on higher ground telecommunication masts or water storage towers punctuate the skyline. The harbour includes large islands, which, along with much of the harbour shore, comprises landscape of fertile farmland which slopes gently to the sea. It comprises a mosaic of fertile fields of mixed use on brown podzols. The rural areas around much of the greater harbour area are now characterised by a prevalence of infrastructure such as roads, bridges and electricity power lines and some urban sprawl. The narrow harbour mouth is defined by two hilltops with old military fortifications on their summits... there is concentration of pharmaceutical companies in the country is located within this landscape”.*

The overall classification of Cork Harbour and Estuary is:

- Landscape Value: Very High – (defined as scenic landscapes with highest natural and cultural quality, areas with conservation interest and of national importance).
- Landscape Sensitivity: Very High – (defined as extra vulnerable landscapes likely to be fragile and susceptible to change).

Cork County Development Plan 2009 Variation No 2: Wind Energy Final SEA Environmental Report



- Landscape Importance: National

The CCDLS recommendations include:

- To Maintain and enhance views of the harbour. Proposals for development in the harbour should respect the sensitivity of this landscape and in particular should have regard to its rich and diverse natural heritage and concentration of Natural Heritage Areas that are designated for protection and the relationship between these and the built environment.
- Proposals for medium and large scale business, retail and industrial uses, which may impact on the character of the harbour area, must consider the landscape implications at the outset and so a landscape scheme should be submitted with planning applications.
- Promote Spike Island as an amenity site. (Spike Island is located less than 1km east of Ringaskiddy).

County Development Plan - Scenic Landscape

The County Development Plan 2009 presents the 'Scenic Landscape' areas of Cork Harbour in **Figure 6.4** below. It should be noted that majority of the Ringaskiddy Area is not recognised as a Scenic Landscape.

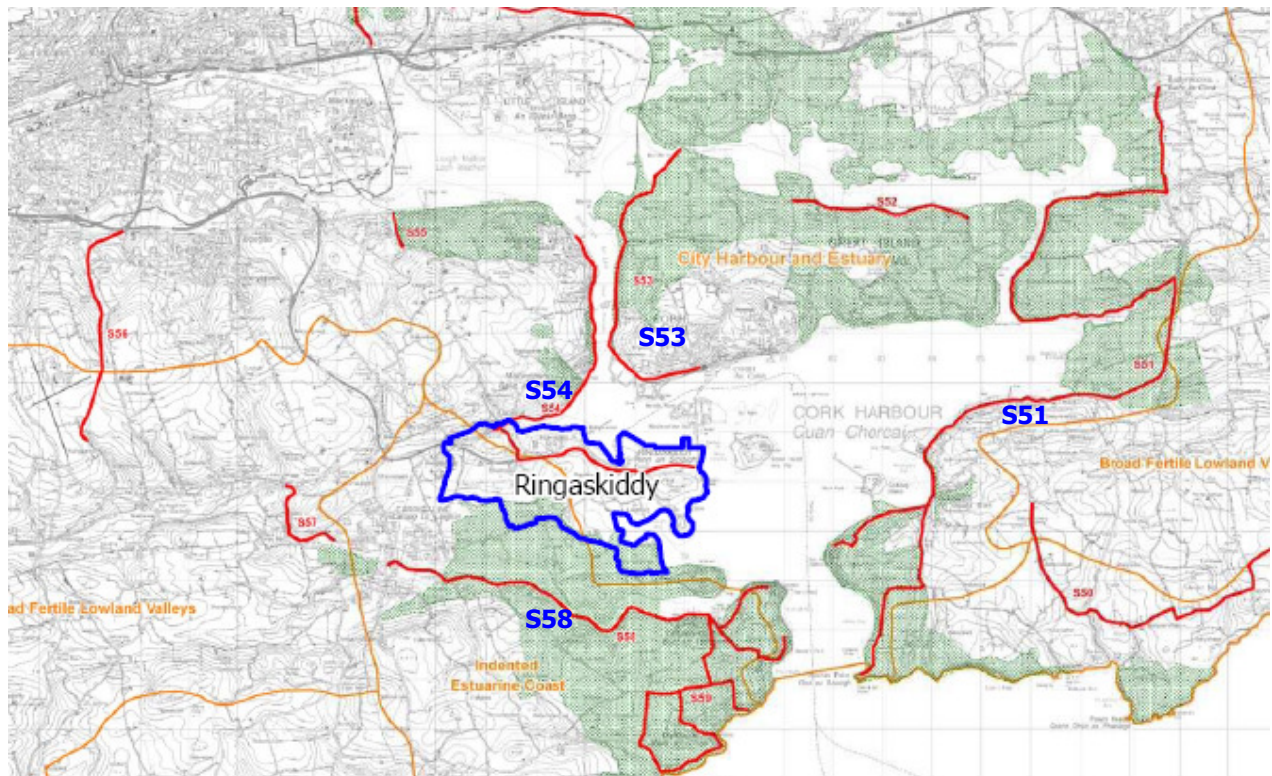


Figure 6.4: Landscape Map 16 of Cork Harbour from County Development Plan. Areas shaded in green are 'Scenic areas' and red lines are 'scenic routes'.

Cork County Development Plan 2009 Variation No 2: Wind Energy Final SEA Environmental Report



County Development Plan - Scenic routes

Scenic Routes are selected for their “important and valued views and prospects within the County” (CCDP Section 7.2.30). “Scenic routes act as indicators of high value landscapes and identify more visually sensitive locations where higher standards of design, siting and landscaping are required. Scenic routes highlight the quality of the overall environment and landscape experienced within Cork County. It is important to protect the character and quality of those particular stretches of scenic routes that have special views and prospects particularly those associated with Scenic Landscapes.” (CCDP Section 7.2.31). “Whilst advocating the protection of such scenic resources the plan also recognises the fact that all landscapes are living and changing, and therefore an objection in principle to development situated on or adjoining scenic routes is not proposed.” (CCDP Section 7.2.32).

The County Development Plan 2009 identifies four scenic routes which either traverse Ringaskiddy (Scenic Route S54) or have a view of Ringaskiddy (Scenic Route S51, S53 & S58). Two other information on the scenic routes presented in **Table 6.1** below and the location on the routes are presented in **Figure 6.2** above.

Table 6.1: Scenic routes within the environs of Ringaskiddy

Scenic Route Ref	Description	General Views Being Protected	Does Route run Through or adjoin Special Scenic Landscape	Overall Landscape Value	Main Features of Land Cover	Structures of Historic or cultural Importance visible from route	Key Characteristics of land use
S51	R630 Regional Road & Local Road from Ballynacorra via East Ferry to Whitegate and Roche's Point.	Views of the Estuary & Harbour, Roche's Point & the rural coastal environment. Includes views of Ringaskiddy.	Yes	Very High	Rural landscape, settlement, wooded area & estuary	Coastguard Station, St. Michael's & All Angel's Church, Whitegate House, Church of the Mother of God & the Holy Trinity Church, all of which are protected structures	Agriculture & residential
S53	R642 Regional Road, between Cobh and Belvelly. This route does not traverse Ringaskiddy.	Views of the upper Harbour and coastal environment	Yes	Very High	Settlement, vegetation, estuary & one-off housing	Haulbowline Island and Cobh Cathedral	Settlement, residential & associated harbour uses
S54	R610 Regional Road, local	View of the Harbour	Yes	Very High	Cork Harbour	Cobh Cathedral, Martello Tower	Industry, residential,

Cork County Development Plan 2009 Variation No 2: Wind Energy Final SEA Environmental Report



Scenic Route Ref	Description	General Views Being Protected	Does Route run Through or adjoin Special Scenic Landscape	Overall Landscape Value	Main Features of Land Cover	Structures of Historic or cultural Importance visible from route	Key Characteristics of land use
	road & N28 National Primary Route between Passage West and Ringaskiddy.				& Great Island	& Naval Base	amenity, maritime, commercial & agriculture
S58	R612 Regional Road from Carrigaline to Crosshaven,	Views of the Owenboy River, the Harbour & coastal landscape. Includes views of Ringaskiddy.	Yes	Very High	Estuary of the Owenboy River & pastoral lands	Drake's Pool (associations with Sir Francis Drake), number of country houses & the village of Crosshaven	Residential, industrial, amenity & recreation, boating, agriculture & pharmaceutical industry

*Abridged from 2009 County Development Plan

Cork County Development Plan - Strategic Wind Energy Areas

The County Development Plan set out two special types of areas for consideration for wind energy, firstly 'Strategic Search Areas' – which have relatively high wind speeds and relatively low landscape sensitivity to wind projects. The second category is 'Strategically Unsuitable Areas', which are areas that because of high landscape sensitivity are considered generally unsuitable for wind energy projects. Further information on these categories is presented in Section 3.1 above.

Almost the entire length of the Cork coast line, from Youghal to the Beara peninsula is classified as Strategically Unsuitable Areas as presented in **Figure 6.5** below. However, most of Cork Harbour is neither classified as Strategic Search Areas nor Strategically Unsuitable Areas. The exception is a small part of the Lower Cork Harbour which has been classified as being a Strategically Unsuitable Area. This includes Crosshaven, Currabinny and Ringaskiddy on the western mouth of the harbour. On the eastern mouth of the estuary the Strategically Unsuitable Area is located around Roaches Point.

Cork County Development Plan 2009 Variation No 2: Wind Energy Final SEA Environmental Report



6.6.2 Baseline – Do Nothing Scenario

Without the variation, the status quo will remain and it may not be possible to construct large wind turbines in the Ringaskiddy area. This will mean that the potential visual impacts from wind turbines on the Ringaskiddy landscape or surrounds will not occur.

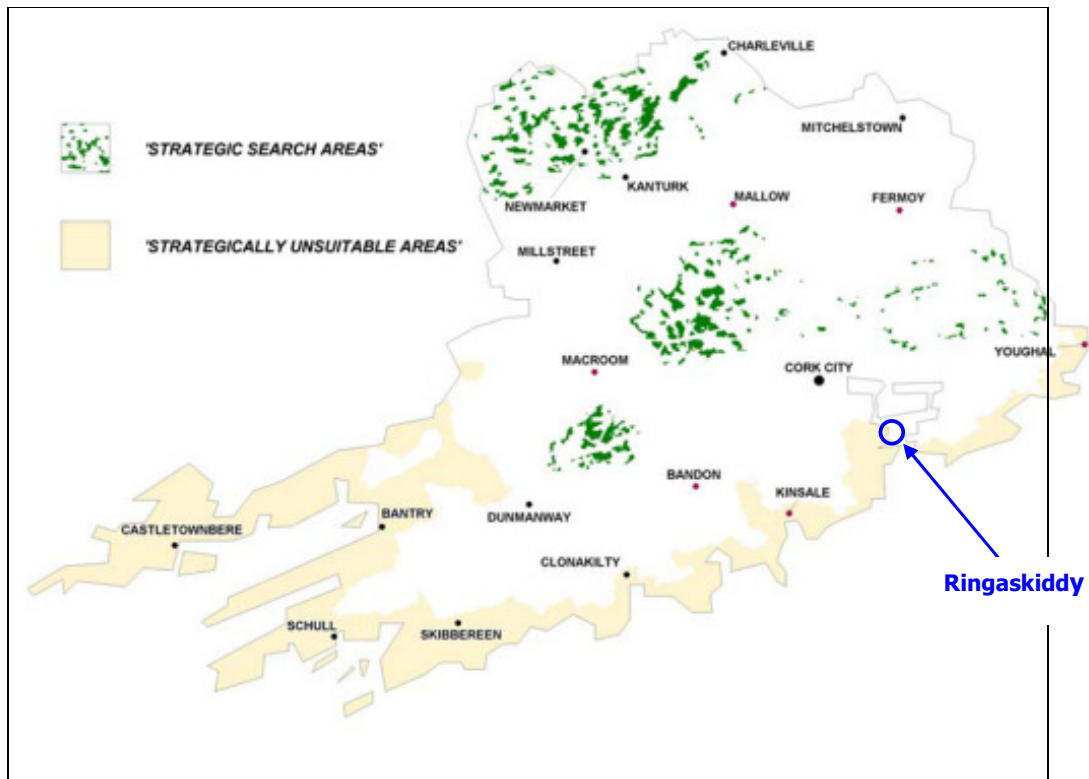


Figure 6.5: Strategic Wind Energy Areas (CCDP 2009)

Cork County Development Plan 2009

Variation No 2: Wind Energy

Final SEA Environmental Report



6.7 Cultural Heritage, including Architectural and Archaeological Heritage

6.7.1 Current Baseline

Architectural Heritage

The Architectural Heritage (National Inventory) and Historic Monuments (Miscellaneous Provisions) Act 1999 defines the term “architectural heritage” as being:

“All

- a) structures and buildings together with their settings and attendant grounds, fixtures and fittings
- b) groups of structures and buildings
- c) sites

which are of architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest”

In addition, all records of Protected Structures are “part of the architectural heritage”.

The National Inventory of Architectural Heritage (NIAH) database (www.buildingsofireland.ie) does not report any historic buildings or structures in the Ringaskiddy as shown in Figure 6.6. However, the adjacent Haulbowline Island and Spike Island have a number of historic buildings. Part of Haulbowline Island is designated as a “Haulbowline Conservation Area”, an ‘Architectural Conservation Area’, in the County Development Plan.

A number of protected structures are located within or close to Ringaskiddy Area as presented in **Table 6.2** below and a number of archeological features are recorded in the area as presented **Figure 6.7**. Of particular prominence is the Martello Tower (RPS No. 575) located on the high ground at the eastern end of the area. The Martello Tower is a 18th Century defensive structure which commands a fine view of the estuary.

Cork County Development Plan 2009
 Variation No 2: Wind Energy
 Final SEA Environmental Report

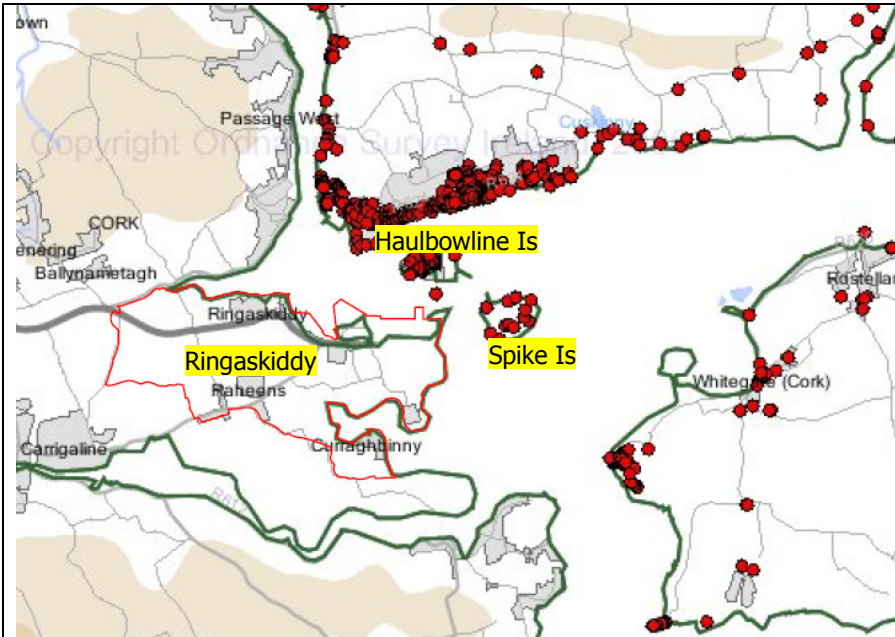


Figure 6.6: NIAH in Cork Harbour

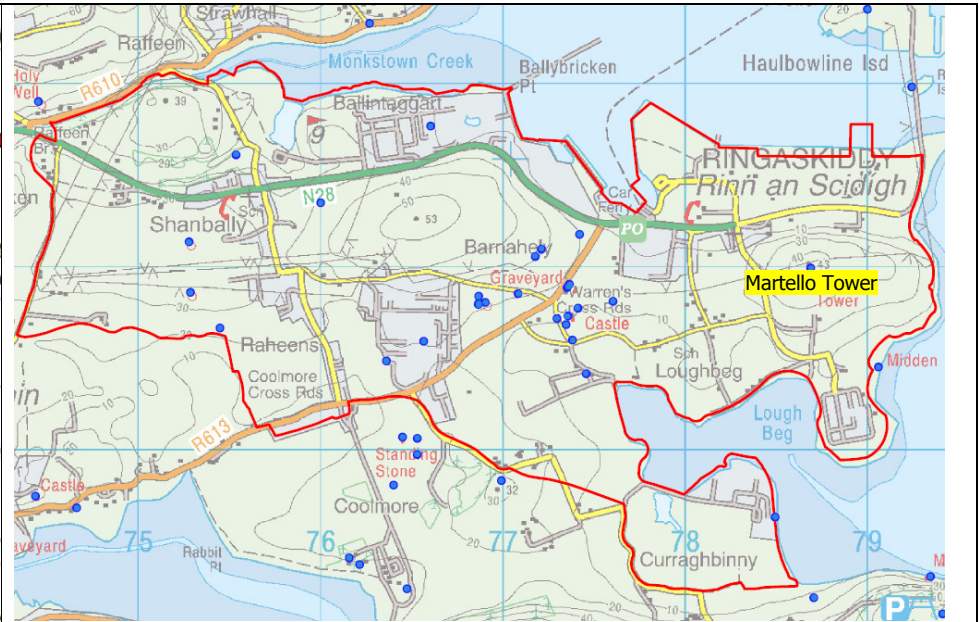


Figure 6.7: Recorded Monuments (blue dots) in the Ringaskiddy Area

Cork County Development Plan 2009 Variation No 2: Wind Energy Final SEA Environmental Report



Table 6.2: List of protected structures within or close to Ringaskiddy Area

RPS* No.	Name of Structure	Townland
00575	Martello Tower	Ringaskiddy
00577	Coolmore House (abandoned)	Coolmore
00578	Martello Tower	Haulbowline Island
00670	Range of Limestone Warehouses & Offices	Haulbowline Island
01260	Castlewarren Stronghouse	Barnahely
01272	Westmoreland Fort (Fort Mitchell)	Spike Island
01290	Rivendell Cottage	Currabinny

*RPS = Record of Protected Structures

6.7.2 Baseline – Do Nothing Scenario

There is a potential that the insensitive positioning of wind turbines would have a negative impact on the integrity of protected structures and monuments in the Ringaskiddy area. If there is no variation to the wind energy policy of the County Development Plan and no turbines are constructed, this compromise of the integrity of the protected structures would not occur.



7 Environmental Protection Objectives

7.1 Introduction

The Environmental Protection Objectives are distinct from the Development Plan objectives and provide a standard against which the goals, policies and objectives of the Development Plan (in this case the Variation to the Development Plan) can be assessed in order to highlight those policies and objectives (or in this case aspects of the Proposed Variation to the wind energy objective) that have the potential to adversely impact on the environment.

Environmental Protection Objectives are used as a tool to cross check the policies and objectives of Development Plans in order to maximise the environmental sustainability of any given Plan. The cross checking process will help identify policies and objectives that will be likely to result in significant adverse impacts, so that alternatives may be considered or mitigation measures may be put in place.

The Environmental Protection Objectives for the Variation to the 2009 County Development Plan have been selected from European, National and Regional Environmental Policy and Guidance. The scoping and public consultation processes for the Variation to the Development Plan SEA informed the selection of appropriate objectives. The objectives are set out below, under the range of environmental aspects specified in the relevant SEA Regulations and in the DoEHLG and EPA guidelines.

7.2 Environmental Protection Objectives

The key Strategic Environmental Protection Objectives for the Variation to the 2009 County Development Plan are outlined in the sub-sections below in **Table 7.1**.

Table 7.1 Strategic Environmental Protection Objectives

Environmental Aspect	Strategic Environmental Protection Objective
Biodiversity, Flora & Fauna	B.1. Prevent damage to biodiversity, particularly EU designated sites and protected species.
Population & Human Health	P.1. Improve energy security.
Air & Climate	A.1. Reduce greenhouse gas/carbon emissions.
Landscape & Landuse	L.1. Minimise the landscape impact of new wind turbines and protect the character, diversity and special qualities of landscapes.
Material Assets	M.1. Promote sustainable energy infrastructure and practices.

Cork County Development Plan 2009 Variation No 2: Wind Energy Final SEA Environmental Report



Environmental Aspect	Strategic Environmental Protection Objective
Cultural Heritage, including Architectural and Archaeological Heritage	C.1 Protect the character, diversity and special qualities of cultural heritage, architectural and archaeological heritage.



8 Identification of Likely Significant Effects of Proposed Variation

8.1 Impact Assessment

The Environmental Protection Objectives outlined in **Section 7** provide the standards against which the Variation to the wind energy objective was assessed in terms of its environmental sustainability.

A compatibility matrix was used to assess the Variation to the wind energy objective against Strategic Environmental Protection Objectives so that aspects of the Variation with the potential for significant adverse environmental impacts could be highlighted.

The assessment criteria used in this assessment are outlined below:

- Potentially Significant Positive Environmental Effect (+),
- Potentially Significant Negative Environmental Effect (–),
- No Significant Environmental Effect or Insignificant Impact (/),
- Uncertain Effect (?).

Table 8.1: Impact Assessment Summary

Environmental Aspects	Strategic Environmental Protection Objective	Significance of Impact
Biodiversity, Flora & Fauna	B.1. Prevent damage to biodiversity, particularly EU designated sites and protected species.	–
Population & Human Health	P.1. Improve energy security.	+
Air & Climate	A.1. Reduce greenhouse gas/carbon emissions through renewable energy technology.	+
Material Assets	M.1. Promote sustainable energy infrastructure and practices.	–
Landscape & Land Use	L.1. Minimise the landscape impact of new wind turbines and protect the character, diversity and special qualities of landscapes.	–
Cultural Heritage, including Architectural & Archaeological Heritage	C.1 Protect the character, diversity and special qualities of cultural heritage, architectural and archaeological heritage.	–



8.2 Summary of the Key Likely Environmental Impacts Of Implementing the Proposed Variation to the Plan

Key environmental impacts likely to arise from the implementation of the Variation to the 2009 County Development Plan (prior to mitigation) are summarised below. This section also deals with the interrelationships between environmental aspects and cumulative effects.

8.3.1 Biodiversity, Flora & Fauna

The key issue in relation to biodiversity is the potential impact of turbines in Ringaskiddy on the important populations of wintering waterbirds in Cork Harbour. The Proposed Variation to the Plan is likely to result in the construction of several windfarms within the existing (and, possible, future) industrial areas of Ringaskiddy. The industrial areas are located in the eastern part of Ringaskiddy and any potential wind turbines are likely to be located within 1.5 km of the Cork Harbour SPA. Two of the intertidal areas of the Cork Harbour SPA are located immediately adjacent to Ringaskiddy, with Monkstown Creek located to the north and Lough Beg to the south. Both of these areas are used by qualifying interest species such as cormorant, shelduck, oystercatcher, black-tailed godwit, curlew and redshank for feeding and roosting during the winter season (NATURA Environmental Consultants, 2010). Wind turbines can impact on waterbirds through:

5. collision risk with moving turbine blades;
6. displacement of birds as they may avoid roosting and feeding areas close to turbines;
7. barrier effects by disrupting flight lines; and
8. direct habitat loss if the turbines and associated infrastructure are built on foraging or roosting habitat.

1. Collision Risk

The wintering waterbirds that use the areas around Ringaskiddy for feeding and roosting may be impacted through collision with the wind turbines as they fly around the harbour. Mortality can result from collision not only with rotor blades, but also with towers, nacelles and associated structures such as guy cables, power lines and meteorological masts (Drewitt and Langston, 2006).

Bird collisions at coastal windfarms are generally higher than from upland windfarms from the studies of bird collisions which is probably reflective of the higher bird densities in these coastal areas (Percival, 2003).

Cork County Development Plan 2009

Variation No 2: Wind Energy

Final SEA Environmental Report



Collision risk is likely to be greater on or near areas regularly used by large numbers of feeding or roosting birds, or on migratory flyways or local flight paths, especially where these are intercepted by the turbines (Drewitt and Langston, 2006) and this may be the case in Ringaskiddy.

Large birds with poor maneuverability (such as swans and geese) are generally at greater risk of collision with structures (Brown *et al.*, 1992) and species that habitually fly at dawn and dusk or at night are perhaps less likely to detect and avoid turbines (Larsen and Clausen, 2002). Foraging waterbirds are limited by tidal state in coastal habitats and they will continue to feed in darkness if the low tide permits. Coastal water birds move around during darkness and they may be more vulnerable to collisions with turbines in limited light conditions (NATURA Environmental Consultants, 2010).

Collision risk is also influenced by weather conditions, with evidence from some studies showing that more birds collide with structures when visibility is poor due to fog or rain (*e.g.* Erickson *et al.*, 2001), although lower levels of flight activity in these conditions may reduce some of this effect.

It is apparent that birds are generally able to avoid collisions and do actively avoid flying into wind turbines. However, the risk of collisions in Ringaskiddy may be potentially high due to the high concentrations of waterbirds in the estuaries adjacent to site both for feeding and roosting and due to the fact that most bird movements will potentially occur in darkness or semi-darkness.

2. Displacement

The displacement of birds from areas within and surrounding windfarms due to visual intrusion and disturbance can amount effectively to habitat loss (Drewitt and Langston, 2006). Displacement may occur during both the construction and operational phases of windfarms, and may be caused by the presence of the turbines themselves through visual, noise and vibration impacts, or as a result of vehicle/vessel and personnel movements related to site maintenance (Drewitt and Langston, 2006). Several studies have shown displacement of birds around windfarms occurring in coastal habitats, although no significant effect has been shown for some studies (Percival, 2003). Disturbance distances up to 800 m from windfarms have been recorded for wintering waterfowl and up to 300 m for breeding waterfowl (Drewitt and Langston, 2006; and Percival, 2003). Distances vary between species with 250 m to 500 m being the average distances for displacement effects from the nearest turbines.

Behavioural responses to windfarms vary between species and may also vary between individuals of the same species, depending on factors such as stage of life cycle, flock size and degree of habituation (Drewitt and Langston, 2006). The scale of disturbance to birds caused by windfarms also shows great variation and this variation is dependant on a wide range of factors including seasonal and diurnal patterns of use by birds, location with respect to important habitats, availability of alternative habitats and possibly turbine and windfarm specifications (Drewitt and Langston, 2006).

Cork County Development Plan 2009

Variation No 2: Wind Energy

Final SEA Environmental Report



Lawrence *et al.* (2007) conducted a ten-year study of the response of birds to the windfarm at Blythe Harbour, Northumberland, UK which is part of the Northumberland Coast SPA and supports a variety of industrial activities. The studies showed no evidence for habitat displacement for winter or summer bird populations and the integrity of the conservation interest of the SPA was not affected (Lawrence *et al.*, 2007).

The presence of vehicle and personnel movements around proposed wind turbines at the industrial facilities of Ringaskiddy would not cause disturbance as waterbirds would already be habituated to activity at these industrial areas. However, the presence of wind turbines themselves and their visual, noise and vibration impacts may result in displacement of birds from their feeding areas and roosts in Monkstown Creek and Lough Beg, especially any wind turbines within approximately 500 m of intertidal feeding areas or high tide roosts.

3. Barrier Effects

Windfarms can have a barrier effect if birds alter their migration flyways or local flight paths to avoid a windfarm (Drewitt and Langston, 2006). This effect may be beneficial as it reduces collision risk but is of concern because of the possibility of increased energy expenditure when birds have to fly further, as a result of avoiding a large array of turbines, and the potential disruption of linkages between distant feeding, roosting, moulting and breeding areas otherwise unaffected by the windfarm (Drewitt and Langston, 2006). Several studies have shown that some bird species alter their flight routes to avoid flying through windfarms (Percival, 2003).

Thus, the windfarms located in Ringaskiddy may potentially create a barrier effect causing waterbirds to fly further to reach their feeding and roosting sites.

4. Habitat Loss

There will be no land take from the Cork Harbour SPA from the proposed development of wind turbines in Ringaskiddy. However, some of waterbird feeding areas are located outside of the SPA within the Ringaskiddy area on wet grassland fields and therefore wind turbines and associated infrastructure built in these areas may result in direct habitat loss.

As has been shown above, there is the potential that the proposed variation to the Plan could impact on the Cork Harbour SPA by resulting in disturbance to key waterbird species (*i.e.* qualifying interest species), by reducing the species richness and density of waterbirds and by changing key indicators of conservation value (*i.e.* qualifying interests). **Figure 2** below illustrates some of the main possible waterbird flightlines between the estuaries around Ringaskiddy and the areas within 500 m of the regularly used feeding areas for waterbirds in Monkstown Creek and Lough Beg as defined by NATURA Environmental Consultants (2010). This figure illustrates that large areas of Ringaskiddy have the potential to be sensitive to the

Cork County Development Plan 2009

Variation No 2: Wind Energy

Final SEA Environmental Report



location of wind turbines from avian biodiversity perspective. The proposed variation to the Plan will have no impact on habitat loss or fragmentation of habitats or species as the Ringaskiddy area is located outside of the SPA and hence no turbines would be located within the SPA itself.

8.2.2 Population & Human Health

Noise and/or shadow flicker effects of wind turbines may potentially occur and may have a negative impact on the local population close to the turbines.

A reduction in energy production costs and increase in energy security for current and prospective industry in Ringaskiddy will help secure employment in the Cork region. This is considered a key positive impact on the regional population and economy.

A reduction in the use of fossil fuels will have a positive impact on the health of people living close to power plants.

8.2.3 Air & Climate

Most, if not all, energy/electricity usage in the Ringaskiddy area is sourced from outside the area. Therefore the production of electricity from wind energy is unlikely to have a significant change in local air quality. However, the industries in the area are high electricity consumers. Therefore, the use of renewable energy sources will have a positive impact on the regional and national consumption of fossil fuels and carbon emissions.

8.2.4 Material Assets (Infrastructure)

Wind turbines can cause interference with air traffic flight lines, overhead power lines and communication networks in certain scenarios and situations. Ringaskiddy is not within the Cork Airport flight line and therefore this is not an issue. However, the occurrence of power lines and communications infrastructure in the area. It is considered best to address these items at the project level.

8.2.5 Landscape & Land Use

The landscape of Cork Harbour is heavily influenced by human activity and it is recognised in Cork County Draft Landscape Strategy that manufacturing industry is a key component in the landscape of Cork Harbour. Wind turbines can be prominent on the landscape and can have a greater height than other industrial buildings. The movement of the blades can also have a visual impact. Therefore wind energy generation may have an impact on the landscape of Ringaskiddy.

While wind turbines may have a landscape impact on the Ringaskiddy and Cork Harbour, it is considered that the recognised industrialised characteristics of Ringaskiddy may be able to accommodate wind

Cork County Development Plan 2009

Variation No 2: Wind Energy

Final SEA Environmental Report



turbines. The potential impact is mainly determined by the size, scale and positioning of turbines. Therefore, it is considered that the best approach is to assess potential impacts on the landscape of Cork Harbour is to address the potential landscape impact at the project level.

Key landscape views to be considered at a project level are;

- View from Scenic Routes recognised in the CCDP
- Views from main population centres which overlook the proposed turbines e.g. Cobh
- Seascape and coastscape view (as requested by the EPA).
- Accumulative affect of other turbines already constructed in the area – The Wind Energy Planning Guidelines (DoEHLG) recognises certain layout patterns of turbines which are more acceptable.

8.2.6 Cultural Heritage, including Architectural and Archaeological Heritage

Recorded monuments, other archaeological features and architectural heritage structures in Ringaskiddy may be compromised by wind turbines. There are a number of these protected structures in the Ringaskiddy area. The inappropriate positioning of turbines would be considered a key likely impact on the cultural heritage of the area.



8.3 Interrelationships

Each of the various environmental aspects have been separately discussed above in previous sections. However all aspects of the environment are interrelated to some extent and **Table 8.1** below summarises the interrelationships between the environmental aspects in relation to the likely significant effects on the environment.

Table 8.1: Interrelationships between the environmental aspects (X = potential interaction)

Interaction With	Biodiversity Flora & Fauna	Population & Human Health	Air & Climate	Material Assets	Landscape	Cultural Heritage
Biodiversity Flora & Fauna		X	X		X	
Population & Human Health	X		X	X	X	X
Air & Climate	X	X				
Material Assets		X				
Landscape & Land Use	X	X				X
Cultural Heritage		X			X	

The key impact interactions relate to the following:

Interactions with Biodiversity, Flora and Fauna

Population & Human Health: There may also be a negative interaction between biodiversity and population if there was a decrease in birds in the SPA as this would impact on birdwatchers enjoyment of their hobby as well as the enjoyment of other members of the general public.

Cork County Development Plan 2009

Variation No 2: Wind Energy

Final SEA Environmental Report



Air and Climate: There may be a positive interaction between biodiversity and air and climate in the wider region as a result of a decrease in harmful emissions from fossil fuel powered power plants due to the switch to 'clean' renewable energy generation.

Landscape: There may be negative interactions between biodiversity and landscape. Winter wader birds tend to roost along the shoreline. If turbines cannot be placed near the shoreline to avoid impact on these roosts it may require turbines to be placed on higher ground away from the shoreline. Positioning of turbines on higher ground may have a greater visual impact on the landscape.

Interactions with Population and Human Health

Human beings interact to a greater or lesser extent with most aspects of the environment. In particular, impacts air and climate, material assets, cultural heritage, landscape and amenity from the proposed variation to the Plan will all have an impact on human beings.

Air and Climate Interactions:

Impacts on air and climate from the proposed variation to the Plan (reduced greenhouse/carbon emissions) will interact positively with population, human health and biodiversity.

Material Assets (Infrastructure) Interactions:

Infrastructural material assets interact with most aspects of the environment. Impacts on existing infrastructure from wind farms as a result of the proposed Plan variation may interact negatively with population to the greatest extent due to possible interference with telecommunication and electricity grid.

Interactions with Landscape and Land Use

Landscape and land use generally interact with biodiversity, population and human health, cultural heritage and infrastructure (material assets). Landscape and cultural heritage could potentially negatively interact if views of or from protected structures were obscured by wind farms as a result of the proposed variation to the Plan.

Interactions with Cultural Heritage, including Architectural and Archaeological Heritage

Impacts on cultural heritage can interact negatively with human beings if, for example, wind turbines impact on an important archaeological feature which the local community regards highly.



9 Mitigation Measures

9.1 Introduction

The potential significant environmental effects (positive and negative) that may arise from the implementation of the Variation to the Plan (prior to mitigation) were identified in **Section 8**. This section describes the measures to prevent, reduce and as fully as possible offset any significant adverse environmental effects of the Variation to the 2009 Development Plan.

The mitigation measures in respect of the potential conflicts with the environment are detailed in the section below.

It must be noted that the mitigation measures detailed below are not a replacement for the information likely to be required by the planning authority in the determination of any planning application within the Ringaskiddy area. The measures outlined below in **Table 9.1** are aimed at addressing the high-level impacts of the Variation to the Plan and are **not a complete list** of information which will be required to support the individual planning applications.

9.2 Mitigation Measures Relating to Environmental Aspects

Mitigation measures for each environmental aspect are outlined in **Table 9.1** below.

In addition to the specific mitigation measures for each environmental aspect outlined below, any proposals in relation to the development of wind energy at Ringaskiddy would have to demonstrate compliance with relevant policies of the current Cork County Development Plan 2009-2015 and also satisfy normal planning provisions as set out in the Wind Energy Development Guidelines (2006).

Table 9.1 Mitigation measures required for each environmental aspect.

Environmental Aspects	Mitigation Measures
General	<p>It is recommended by the EPA that for each energy development an Environmental Impact Assessment including visual impact assessment and an Appropriate Assessment be completed.</p> <p>Wind Energy Development Guidelines (DoEHLG 2006) should be adhered to on all projects.</p>

Cork County Development Plan 2009

Variation No 2: Wind Energy

Final SEA Environmental Report



Environmental Aspects	Mitigation Measures
<p>Biodiversity, Flora & Fauna</p>	<p>A Habitats Directive Assessment (Appropriate Assessment) should be carried out, in accordance with the Department of the Environment Heritage and Local Government (DoEHLG) Appropriate Assessment Guidance for Planning Authorities, on all proposed wind energy developments at Ringaskiddy.</p> <p>A buffer zone between turbines and waterbird high tide roost sites or important intertidal feeding areas is required. The buffer zone distance should be based on current best practice, site conditions and advice from the NPWS.</p> <p>Wind farm layout design to be configured to ensure that wind turbines are not placed directly on important bird flight paths.</p> <p>Consideration for bats and other protected flora and fauna in all projects.</p>
<p>Population & Human Health</p>	<p>A noise impact assessment to be carried out to ensure that the noise levels at any noise sensitive property do not exceed the limits set out in the DoEHLG "Wind Farm Planning Guidelines" (2006) for all proposed wind energy developments.</p> <p>An assessment of shadow flicker impacts, including shadow flicker predictions, to be carried out for all proposed wind energy developments to ensure that shadow flicker at neighbouring offices and dwellings within 500m do not exceed 30 hours per year or 30 minutes per day as per DoEHLG "Wind Farm Planning Guidelines" (2006).</p>
<p>Air & Climate</p>	<p>No mitigation measure required as a positive impact.</p>
<p>Material Assets</p>	<p>An assessment of the impacts of the proposed wind energy development on electricity grid and communication networks to be conducted for each planning permission.</p> <p>As requested by the EPA, impacts associated with infrastructure such as construction of roadways, site investigations, power lines etc should be assessed for each project.</p>
<p>Landscape & Land Use</p>	<p>For each project a Landscape and Visual Impact Assessment (LVIA) should be conducted, in accordance with Landscape Institute and the Institute of Environmental Management and Assessment Guidelines for Landscape and</p>

Cork County Development Plan 2009

Variation No 2: Wind Energy

Final SEA Environmental Report



Environmental Aspects	Mitigation Measures
	<p>Visual Impact Assessment (2nd Edition 2002),</p> <p>Key landscape views to be considered are;</p> <ul style="list-style-type: none"> • View from Scenic Routes recognised in the CCDP • Views from main population centres which overlook the proposed turbines e.g. Cobh • Seascape and coastscape view (as requested by the EPA). • Accumulative affect of other turbines already constructed in the area <ul style="list-style-type: none"> – The Wind Energy Planning Guidelines (DoEHLG) recognises certain layout patterns of turbines which are more acceptable.
<p>Cultural Heritage, including Architectural and Archaeological Heritage</p>	<p>An archaeological, architectural and cultural heritage assessment should be conducted for all proposed wind energy developments. This assessment should identify all baseline archaeological and cultural heritage resources and recommend appropriate mitigation to address any likely significant effects.</p> <p>Recorded Monuments and any other archaeological features should be preserved in-situ or preserved by record.</p> <p>Where a proposed development includes a monument or site included in the Record Monument and Places within the landholding, it is recommended by the DEHLG that an archaeological assessment is commissioned to establish the extent of archaeological material associated within the monument or site. A buffer area with the monument shall be establish to preserve the setting and visual amenity of the site.</p>



9.3 Change of Wording to Proposed Variation

It is imperative that an Habitats Directive Assessment, in compliance with Article 6 of the EU Habitats Directive, is prepared for each proposed development at the planning application stage *i.e.* project level.

Hence, it was recommended that the wording of the variation should be amended as follows:

Table 4.2: Variation to the Development Plan Wind Energy Objective INF 7-4 (<u>Note</u> : Black bold and underlined denotes Proposed Variation and Green bold and underlined denotes proposed amendment to Variation)	
Wind Energy Projects	
e)	It is an objective to encourage prospective wind energy businesses and industries. In assessing potentially suitable locations for projects, potential wind farm developers should focus on the strategic search areas identified in the Plan and generally avoid wind energy projects in the strategically unsuitable areas identified in this Plan.
f)	It is an objective to support existing and established businesses and industries who wish to use wind energy to serve their own needs subject to proper planning and sustainable development. <u>In particular, because of the potential for wind generated electricity to reduce the reliance of large scale industry on fossil fuel generated electricity, proposals located within the areas identified as suitable locations for large scale industrial development in Objective ECON 3-2 of this plan will be considered on their merits and subject to compliance with Article 6 of the EU Habitats Directive</u>
g)	It is an objective in the strategic search areas (and in those areas that are identified as neither strategic search areas nor strategically unsuitable areas), to consider new, or the expansion of existing, wind energy projects on their merits having regard to normal planning criteria including, in particular, the following: <ol style="list-style-type: none"> 1. The sensitivity of the landscape and of adjoining landscapes to wind energy projects; 2. The scale, size and layout of the project, any cumulative effects due to other projects, and the degree to which impacts are highly visible over vast areas; 3. The visual impact of the project on protected views and prospects, and designated scenic landscapes as well as local visual impacts; 4. The impact of the project on nature conservation, archaeology and historic structures; 5. Local environmental impacts including noise and shadow flicker; 6. The visual and environmental impacts of associated development such as access roads, plant, grid connections etc. 7. The proximity and sensitivity of a recognised settlement,

Cork County Development Plan 2009

Variation No 2: Wind Energy

Final SEA Environmental Report



Table 4.2: Variation to the Development Plan Wind Energy Objective INF 7-4
(Note: Black bold and underlined denotes Proposed Variation and Green bold and underlined denotes proposed amendment to Variation)

- 8. The impact of the project on archaeology and historic structures,
 - 9. The impact of nature conservation, in particular avoiding designated and proposed European sites.
- h) Similar criteria would be taken into account in the strategically unsuitable areas except that **(other than in areas to which Objective ECON 3-2 relates)** suitable projects will generally be on a smaller scale and on very special, carefully chosen sites.

Table 4.4: Proposed variation to the definition of Strategically Unsuitable Areas
(Note: Black bold and underlined denotes proposed Variation and Green bold and underlined denotes proposed amendment to proposed variation)

- i) Areas which, because of high landscape sensitivity, are considered generally to be unsuitable for wind energy projects. While there may be a small number of locations within these areas with limited potential for small-scale wind projects, their contribution to any significant reduction in greenhouse gas emissions would be negligible. Except on a small scale and at particularly suitable locations, wind projects would normally be discouraged in these areas. ***However, because of the potential for wind generated electricity to reduce the reliance of large scale industry on fossil fuel generated electricity, for the avoidance of doubt, the areas identified as suitable locations for large scale industrial development in Objective ECON 3-2 of this plan are excluded from these areas and wind energy proposals in the areas referred to in ECON 3-2 will be considered on their merits and subject to compliance with Article 6 of the EU Habitats Directive***

This amendment to the Variation will ensure that there are no adverse effects of wind turbine development on the Cork Harbour SPA.

Cork County Development Plan 2009

Variation No 2: Wind Energy

Final SEA Environmental Report



10 Monitoring

Article 10 of the SEA Directive requires that monitoring should be carried out in order to identify at an early stage any unforeseen adverse effects due to implementation of a Plan (or a Variation to the Plan), and to be able to take remedial action. Monitoring is carried out by reporting on a set of indicators, which enable positive and negative impacts on the environment to be measured. They have been developed to show changes that would be attributable to implementation of the Plan.

These indicators were refined throughout the SEA process and are included in the SEA Statement as part of the monitoring programme.

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 inter-relationships and providing information about environmental issues which are relatively easy to understand. They provide a means of measuring the progress towards achieving the environmental objective over time.

A number of *targets* have been proposed for each objective and these refer to the desirable state in relation to each objective in quantifiable terms.

The following indicators and targets are proposed as part of this SEA process, to monitor the effects on the environment of implementing the Variation to the Plan. As measurements for indicators should come from existing monitoring sources and no new monitoring should be required to take place, all monitoring sources are maintained by Cork County Council and relevant authorities *e.g.* EPA, NPWS.

Table 10.1 below outlines the selected indicators, targets and monitoring sources with regard to each environmental aspect.

Cork County Development Plan 2009 Variation No 2: Wind Energy Final SEA Environmental Report



Table 10.1: Indicators, targets and monitoring sources for each environmental aspect

Environmental Aspect	Environmental Protection Objectives	Targets	Indicators	Indicators information Source
Biodiversity, Flora & Fauna	B.1 Prevent damage to biodiversity, particularly EU designated sites and protected species.	No loss of protected species.	Results from winter bird monitoring surveys completed to comply with planning permission conditions.	Monitoring survey data from permitted developments.
Population & Human Health	P.1 Improve energy security.	Increase in percentage of wind energy utilised by industry in Ringaskiddy.	Number of wind energy planning permission granted.	Cork County Council.
Air & Climate	A.1 Reduce greenhouse gas/carbon emissions.	Increase number of permissions granted for renewable energy projects.	Number of wind energy planning permission granted.	Cork County Council.
Landscape & Landuse	L.1 Minimise the landscape impact of new wind turbines and protect the character, diversity and special qualities of landscapes.	To control wind energy developments to avoid possible adverse impacts upon designated scenic routes or scenic landscape.	Results from landscape impact assessments which have been carried out to look at the cumulative impacts of permitted developments.	Cork County Council.

Cork County Development Plan 2009 Variation No 2: Wind Energy Final SEA Environmental Report



Environmental Aspect	Environmental Protection Objectives	Targets	Indicators	Indicators information Source
Cultural Heritage, including Architectural and Archaeological Heritage	C.1 Protect the character, diversity and special qualities of cultural heritage, architectural and archaeological heritage	No adverse impacts on the cultural heritage landscape.	Results from cultural heritage/landscape impact assessments which have been carried out to look at the cumulative impacts of permitted developments.	Assessment data from permitted developments. Cork County Council.

11 Conclusion from Managers Report

Because of their potential for environmental effects, large scale wind energy projects raise significant planning issues. However, when allied to large scale industrial projects, they also have the potential to bring significant environmental benefits through the increased use of renewable energy sources.

The purpose of this Variation is to revise the County Development Plan policy framework, which is currently predisposed against large scale projects in certain Strategic Industrial Areas, so that their advantages and disadvantages can be assessed at the project level.

Cork County Development Plan 2009 Variation No 2: Wind Energy Final SEA Environmental Report



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Cork County Development Plan 2009
Variation No 2: Wind Energy
Final SEA Environmental Report



Appendix A
SEA Screening Statement



Cork County Council

Cork County Council Development Plan 2009 - Proposed Variation to Wind Energy Policy INF 7-4

SEA Screening Statement

Date: August 2010

Cork County Development Plan 2009-2015 Proposed Variation - SEA Screening Statement



Contents

1	Introduction.....	2
	1.1 Background	2
2	Proposed Variation to the Plan	3
	2.1 Background Information.....	3
	2.2 Area Relating to the Proposed Variation to the Plan	5
3	Assessment in terms of Schedule 2A of the Planning and Development (Strategic Environmental Assessment) Regulation 2004	6
4	Statutory Consultation	11
5	Determination in Terms of Article 13K	11

Tables

Table 1	Proposed Variation to the Development Plan Wind Energy Objective INF 7-4
Table 2	Industry Objective Econ 3-2
Table 3	Proposed Variation to the Definition of Strategically Unsuitable Areas

Figures

Figure 1	Area Relating to the Proposed Variation (Ringaskiddy) and its Environs
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Cork County Development Plan 2009-2015 Proposed Variation - SEA Screening Statement



1 Introduction

1.1 Background

Cork County Council intends to initiate the procedures for making a Variation of the County Development Plan 2009-2015 under Section 13 of the Planning and Development Act 2000 (as amended) (the Act).

The Planning and Development (Strategic Environmental Assessment) Regulations 2004 (SI No. 436 of 2004) require Strategic Environmental Assessments in the case of variations to Development Plans where they are likely to give rise to significant environmental effects. A formal "Screening" is required under the Regulations to determine whether the policies or objectives would be likely to have significant effects on the environment.

SEA Screening involves formal consideration of:

- the Characteristics of the Plan; and
- the Characteristics of the environmental effects of the Plan and the area likely to be affected.

In terms of the provisions of Article 13K of the Planning and Development (Strategic Environmental Assessment) Regulations 2004 (the Regulations), where a planning authority, in this case Cork County Council proposes to make a variation of a Development Plan under Section 13(2) of the Act, it shall (before giving notice under Section 13(2) of the Act) consider whether or not the proposed variation would be likely to have significant effects on the environment, taking into account criteria set out in Schedule 2A of the Regulations.

Article 3 of the SEA Directive details the type of 'plans and programmes' to which the provisions of the Directive shall apply, by way of their purpose and likely effects. According to this Article environmental assessment is required for plans or programmes which:

- *'are likely to have significant environmental effects'*
- *'are prepared for agriculture, forestry, fisheries, energy, industry, transport, waste management, water management, telecommunications, tourism, town and country planning or land use and which set the framework for future development consent of projects listed in Annexes I and II to Directive 85/337/EC' (the EIA Directive) or*
- *'in view of the likely effect on sites, have been determined to require an assessment pursuant to Article 6 or 7 of Directive 92/43/EEC'*

Cork County Development Plan 2009-2015 Proposed Variation - SEA Screening Statement



An assessment of the proposed variation in terms of the criteria set out in Schedule 2A of the Regulations is set out in **Section 3** below.

2 Proposed Variation to the Plan

2.1 Background Information

Cork County Council is considering making a variation to the wind energy policy (INF 7-4) contained in the 2009 County Development Plan in relation to the future development of wind energy projects at Ringaskiddy.

The County Council has identified a number of locations as suitable for large scale industrial development including Ringaskiddy, Whitegate, Carrigtwohill, Kilbarry, and Little Island. In all these locations, except Ringaskiddy, wind energy proposals can be considered on their merits and in relation to the criteria set out in objective INF 7-4.

Ringaskiddy, however, is located within a 'strategically unsuitable area' where wind energy proposals, although not ruled out, will generally be small in scale. 'Strategically unsuitable areas' are of high landscape sensitivity. It is the Council's view that this policy position in relation to wind energy at Ringaskiddy is inconsistent with the other objectives for Ringaskiddy (*i.e.* as a location for large scale industry) as well as in relation to encouraging business and industry generally to increase its use of wind energy, as a policy of reducing dependence of fossil fuels (and associated carbon emissions) and to increase energy security.

Therefore, the County Council is considering a variation to the County Development Plan 2009, to bring the treatment of wind energy projects at Ringaskiddy in line with the treatment of similar projects in the other areas identified for large scale industry (see **Table 1**). The effect of this variation will be to enable wind energy proposals, of any scale, at Ringaskiddy to be considered on their merits in relation to the criteria set out in objective INF 7-4 and other proper planning considerations. There would be no change to the treatment of wind energy proposals in the other locations identified as suitable for large scale industrial development by objective ECON 3-2 (see **Table 2**).



Table 1: Proposed variation to the Development Plan Wind Energy Objective INF 7-4
(Note: Red bold and underlined denotes proposed Variation)

Wind Energy Projects

- a) It is an objective to encourage prospective wind energy businesses and industries. In assessing potentially suitable locations for projects, potential wind farm developers should focus on the strategic search areas identified in the Plan and generally avoid wind energy projects in the strategically unsuitable areas identified in this Plan.
- b) It is an objective to support existing and established businesses and industries who wish to use wind energy to serve their own needs subject to proper planning and sustainable development. **In particular, because of the potential for wind generated electricity to reduce the reliance of large scale industry on fossil fuel generated electricity, proposals located within the areas identified as suitable locations for large scale industrial development in Objective ECON 3-2 of this plan will be considered on their merits.**
- c) It is an objective in the strategic search areas (and in those areas that are identified as neither strategic search areas nor strategically unsuitable areas), to consider new, or the expansion of existing, wind energy projects on their merits having regard to normal planning criteria including, in particular, the following:
- The sensitivity of the landscape and of adjoining landscapes to wind energy projects;
 - The scale, size and layout of the project, any cumulative effects due to other projects, and the degree to which impacts are highly visible over vast areas;
 - The visual impact of the project on protected views and prospects, and designated scenic landscapes as well as local visual impacts;
 - The impact of the project on nature conservation, archaeology and historic structures;
 - Local environmental impacts including noise and shadow flicker;
 - The visual and environmental impacts of associated development such as access roads, plant, grid connections etc.
 - The proximity and sensitivity of a recognised settlement,
 - The impact of the project on archaeology and historic structures,
 - The impact of nature conservation, in particular avoiding designated and proposed European sites.
- d) Similar criteria would be taken into account in the strategically unsuitable areas except that **(other than in areas to which Objective ECON 3-2 relates)** suitable projects will generally be on a smaller scale and on very special, carefully chosen sites.



Table 2: Industry Objective Econ 3-2

Econ 3-2	<p>Locations for Large-Scale Industrial Development:</p> <p>It is an objective to ensure that sufficient and suitable land is zoned for sustainable large-scale and general industry taking into account the objectives of this plan (including development to meet the likely needs of the chemical, pharmaceutical and oil refining sectors) at the major employment centres of Ringaskiddy, Whitegate, Carrigtwohill, Kilbarry and Little Island. Such land will, normally, be protected from inappropriate development that would prejudice its long-term development for these uses.</p>
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In addition, there is a proposed variation to the definition of Strategically Unsuitable Areas, as outlined below.

Table 3: Proposed variation to the definition of Strategically Unsuitable Areas

(Note: Red bold and underlined denotes proposed Variation)

Areas which, because of high landscape sensitivity, are considered generally to be unsuitable for wind energy projects. While there may be a small number of locations within these areas with limited potential for small-scale wind projects, their contribution to any significant reduction in greenhouse gas emissions would be negligible. Except on a small scale and at particularly suitable locations, wind projects would normally be discouraged in these areas. **However, because of the potential for wind generated electricity to reduce the reliance of large scale industry on fossil fuel generated electricity, for the avoidance of doubt, the areas identified as suitable locations for large scale industrial development in Objective ECON 3-2 of this plan are excluded from these areas and wind energy proposals in the areas referred to in ECON 3-2 will be considered on their merits.**

2.2 Area Relating to the Proposed Variation to the Plan

Ringaskiddy is located south of Cork city (see **Figure 1**) and is a major industrial district with a number of large pharmaceutical facilities. Improved agricultural grassland and tillage / arable land are the other dominant land-uses in the area. The Ringaskiddy area is surrounded to the north, west and south east by Cork Harbour. The geographical area defined as Ringaskiddy in the County Development Plan is presented in **Figure 1** below.



Figure 1: The Area Relating to the Proposed Variation (Ringaskiddy) and its Environs

3 Assessment in terms of Schedule 2A of the Planning and Development (Strategic Environmental Assessment) Regulation 2004

3.1 The characteristics of the plan having regard, in particular, to:

3.1.1 The degree to which the plan sets a framework for projects and other activities, either with regard to the location, nature, size and operating conditions, or by allocating resources;

The proposed variation to the Plan sets a framework for wind energy projects within Ringaskiddy by allowing each individual project to be considered on their merits regardless of location, nature, size and operating conditions. The proposed variation to the Plan removes the classification of Ringaskiddy as being within a 'strategically unsuitable area' where wind energy proposals, although not ruled out, will generally be small in scale.

Cork County Development Plan 2009-2015

Proposed Variation - SEA Screening Statement



It is not considered that there is any particular significant resource allocation issues associated with the proposed variation to the Plan.

3.1.2 The degree to which the Plan influences other Plans, including those in a hierarchy

It is considered that the proposed variation to the Plan would have a significant influence on other plans including those concerned with energy, climate change and sustainability such as the National Energy Efficiency Action Plan 2009-2020, the National Renewable Energy Action Plan (2010) and the National Climate Change Strategy 2007-2012. The proposed variation to the Plan may also significantly influence local plans such as the County Cork Heritage Plan 2005-2010, County Cork Biodiversity Action Plan 2009-2014 and the Cork County Draft Landscape Strategy 2007.

3.1.3 The relevance of the plan for the integration of environmental considerations, in particular with a view to promoting sustainable development.

It is considered that the proposed variation to the Plan would have a positive effect on other environmental considerations including sustainable development as it may lead to reduction in energy production costs and increase in energy security and sustainability for current and prospective industry in Ringaskiddy. The proposed variation would help Ireland comply with its commitments under the UN Kyoto protocol, the National Climate Change Strategy 2007-2012 and the Renewable Energy Directive (2009/28/EC) and the National Renewable Energy Action Plan (2010) that requires Ireland to generate 20% of their energy from renewable sources by 2020.

3.1.4 Environmental problems relevant to the Plan

It is considered that the main environmental problems relevant to the proposed variation to the Plan are the potential negative impacts on the wintering waterbird populations in Cork Harbour from the construction of wind farms in Ringaskiddy and the impact of wind turbines on the landscape of Cork Harbour.

Cork Harbour Special Protection Area (site code: 004030) is a large sheltered bay system with several river estuaries that support very high numbers of wintering waterfowl. Two of the intertidal areas of the Cork Harbour SPA are located immediately adjacent to Ringaskiddy with Monkstown Creek located to the north and Lough Beg to the south. Wind turbines can impact on waterbirds through: collision risk with moving turbine blades; displacement of birds as they may avoid roosting and feeding areas close to turbines; barrier effects by disrupting flight lines; and direct habitat loss if the turbines and associated infrastructure are built on foraging or roosting habitat. Therefore the location of wind turbines at Ringaskiddy close to important feeding and roosting areas could have a potential negative impact on waterbirds.

Cork County Development Plan 2009-2015 Proposed Variation - SEA Screening Statement



There can be a general public concern regarding the aesthetics of wind turbines. The Cork County Draft Landscape Strategy 2007 has identified Cork Harbour and Estuary as being of very high landscape value, very high landscape sensitivity and indicating high landscape sensitivity. Two scenic routes are located either within or overlook Ringaskiddy and the Cork County Development Plan 2009-2015 Scenic Landscape map of the area classifies a small part of the Ringaskiddy area as being a 'scenic area', mainly around Currabinny. Therefore, there is the potential that the location of wind turbines in Ringaskiddy will have a negatively impact on the landscape.

3.1.5 The relevance of the plan for the implementation of European Union legislation on the environment (*e.g.* plans linked to waste management or water protection).

It is considered that the proposed variation to the Plan is very relevant to, and will have a positive influence on the implementation of, the Renewable Energy Directive (2009/28/EC) which requires Member States, including Ireland, to generate 20% of their energy from renewable sources by 2020. The reduction in greenhouse gases, particularly CO₂, and other atmospheric pollutants from the increased generation of electricity by wind and decreased use of fossil fuels for electricity generation as a result of the proposed variation to the Plan is also very relevant to the Air Framework Directive (Directive on Air Quality Assessment and Management (Framework Directive) (1996/62/EC)) and the Directive on National Emission Ceilings for Certain Atmospheric Pollutants (2001/81/EC)

3.2 Characteristics of the Effects and of the of the Area likely to be affects, having regard in particular to:

3.2.1 The probability, duration, frequency and reversibility of the effects.

The proposed variation to the Plan would result in the possibility of wind energy developments occurring in industrial areas and future industrial areas of Ringaskiddy. Each wind farm development is likely to have a lifespan of 25 to 30 years. The potential effects on landscape and biodiversity could be mitigated by the careful placing of the turbines in the landscape to avoid or reduce impacts on sensitive views and to avoid important bird flight paths, roosting and feeding areas.

It is considered that the proposed variation to the Plan may result in significant impacts having regard to the probability, duration, frequency and reversibility of the effects.

Cork County Development Plan 2009-2015 Proposed Variation - SEA Screening Statement



3.2.2 The cumulative nature of the effects.

It is considered that the proposed variation to the Plan may result in cumulative effects if very large numbers of wind turbines are permitted to be built in Ringaskiddy. This can be avoided if proper planning is implemented so that each individual wind farm development is considered on its own merits and the cumulative impacts are considered for each development before planning permission is granted.

3.2.3 The transboundary nature of the effects.

It is considered that the variation to the Plan will have no national, regional or inter-county transboundary effects on the environment.

3.2.4 The risks to human health or the environment (*e.g.* due to accidents).

It is not considered that the proposed variation to the Plan poses any particular risks to human health or the environment, in the context of accidents. However, noise and shadow flicker from the wind turbines may be a potential problem although this is unlikely as the wind turbines would be located in industrial areas away from residential properties. The construction, operation and decommissioning of wind turbines in Ringaskiddy will follow strict health and safety procedures which would result in a very low risk to human health in the area.

3.2.5 The magnitude and spatial extent of the effects (geographical area and size of population likely to be affected).

The spatial extent of the effects of the building of wind turbines as a result of the proposed variation to the Plan will be limited to the area defined as Ringaskiddy in the Cork County Development Plan 2009-2015 and shown by the red line area in **Figure 1** above. This area is approximately 800 hectares.

The spatial extent of the potential effects on landscape and wintering waterbird populations from the proposed variation to the Plan could be the whole of Cork Harbour, if views from other parts of the harbour are negatively impacted and/or if the overall waterbird populations of the harbour are negatively impacted.

The magnitude of the effects on landscape and waterbirds from the proposed variation to the Plan could potentially be significant.

3.2.6 The value and vulnerability of the area likely to be affected due to:

a) Special natural characteristics or cultural heritage,

It is considered that the proposed variation to the Plan may have an impact on the Cork Harbour Special Protection Area (SPA) (site code: 004030) which is located immediately adjacent to Ringaskiddy. The

Cork County Development Plan 2009-2015 Proposed Variation - SEA Screening Statement



construction and operation of wind turbines at Ringaskiddy may have a potential negative impact on waterbirds which are the qualifying interests of the SPA.

The Cork County Draft Landscape Strategy 2007 has identified Cork Harbour and Estuary as being of very high landscape value, very high landscape sensitivity and indicating high landscape sensitivity. Two scenic routes are located either within or overlook Ringaskiddy and the Cork County development plan 2009-2015 Scenic Landscape map of the area classifies a small part of the Ringaskiddy area as being a 'scenic area', mainly around Currabinny. It is considered that the proposed variation to the Plan may have a potential negative impact on these landscape designations due to the potential construction of wind turbines at Ringaskiddy.

There are a number of protected structures located within or close to Ringaskiddy including the Martello Tower located on the high ground at the eastern end of the area. It is considered that the proposed variation to the Plan may have an impact on the cultural heritage.

b) Exceeded environmental quality standards or limit values

It is not considered that the proposed variation to the Plan will result in any environmental quality standards or limit values being exceeded.

c) Intensive land use.

It is not considered that the proposed variation to the Plan will result in any increase in the intensity of land use in Ringaskiddy as parts of the area are already heavily industrialised and the addition of wind turbines to these areas will not alter the intensity of the land use.

3.2.7 The effects on areas or landscapes which have recognised national, European Union or international protection status.

It is considered that the proposed variation to the Plan may have a potential negative impact on the Cork Harbour SPA which is located immediately adjacent to Ringaskiddy. Wind turbines at Ringaskiddy may have an impact on waterbirds which are the qualifying interests of the SPA and as such there may be possible negative effects on the conservation objectives and integrity of this Natura 2000 site.

The Great Island Channel Special Area of Conservation (SAC) (site code: 001058) is located approximately 5 km to the north of Ringaskiddy and it is considered that the proposed variation to the Plan would not have an impact on this SAC.



4 Statutory Consultation

The specified environmental authorities will be consulted in relation to variations of development plans under Article 13A(4) of the Regulations are;

- The Environmental Protection Agency (EPA);
- The Department of the Environment, Heritage and Local Government (DEHLG);
- The Department of Communications, Marine and Natural Resources (DCMNR).

5 Determination in Terms of Article 13K

In terms of the provisions of Article 13K of the Regulations, it is considered that the proposed variation to the Cork County Development Plan 2009-2015 has the potential to have significant effects on the environment, particularly in relation to the potential impacts on the wintering waterbird populations in Cork Harbour from the construction of wind farms in Ringaskiddy and the impact of wind turbines on the landscape of Cork Harbour.

Therefore, it is considered that a Strategic Environmental Assessment is required in respect of the proposed variation of the Cork County Development Plan 2009-2015.

Cork County Development Plan 2009
Variation No 2: Wind Energy
Final SEA Environmental Report



Appendix B
SEA Scoping Report



Cork County Council

Cork County Council Development Plan 2009 - Proposed Variation to Wind Energy Policy INF 7-4

Strategic Environmental Assessment
Scoping Report

Date: August 2010

Cork County Development Plan 2009-2015 Proposed Variation - SEA Scoping Report



Contents

1	Introduction	1
2	Strategic Environmental Assessment	2
	2.1 General	2
	2.2 Scoping Stage	3
3	Proposed Variation to the Plan	4
	3.1 Background Information	4
	3.2 Geographic Scope of the Proposed Variation to the Plan.....	8
	3.3 Context of Plan Variation	10
4	Environmental Baseline	17
	4.1 General Information.....	17
	4.2 Baseline Environment.....	17
	4.3 Do nothing scenario.....	35
5	Preliminary Scoping of SEA Environmental Aspects	36
6	Environmental Objectives, Targets and Indicators	38
7	Assessment of Alternatives	39
8	Conclusion on Proposed Scope of SEA.....	40
9	Further Consultation & Timeframe	41
10	References.....	42

Tables

Table 2.1	Main Outputs of the SEA Process
Table 3.1	Current Wind Energy Objective INF 7-4
Table 3.2	Proposed variation to the Development Plan Wind Energy Objective INF 7-4
Table 3.3	Proposed variation to the definition of Strategically Unsuitable Areas
Table 3.3	Industry Objective Econ 3-2
Table 3.4	Preliminary Review of Legislations, Plans, Policies and Programmes – International
Table 3.5	Preliminary Review of Legislations, Plans, Policies and Programmes – European Union
Table 3.6	Preliminary Review of Legislations, Plans, Policies and Programmes – National
Table 3.7	Preliminary Review of Legislations, Plans, Policies and Programmes – Regional and Local
Table 4.1	Scenic routes within the environs of Ringaskiddy.



Cork County Development Plan 2009-2015 Proposed Variation - SEA Scoping Report



Table 4.2	List of protected structures within or close to Ringaskiddy Area
Table 4.3	Interactions between factors
Table 6.1	Draft Strategic Environmental Objectives
Table 7.1	Summary of Draft Alternatives under Consideration

Figures

Figure 1	The Area Relating to the Proposed Variation (Ringaskiddy) and its Environs.
Figure 2	Ringaskiddy as defined by the Cork County Development Plan 2009.
Figure 3	Natura 2000 Sites within 15 km of the Area Relating to the Proposed Variation.
Figure 4	Landscape Map 16 of Cork Harbour from County Development Plan.
Figure 5	Strategic Wind Energy Areas
Figure 6	Zoning map of Ringaskiddy.



Cork County Development Plan 2009-2015 Proposed Variation - SEA Scoping Report



1 Introduction

Cork County Council is considering making a variation to the wind energy objective contained in the 2009 Cork County Development Plan in relation to the future development of wind energy projects at Ringaskiddy.

The County Council has identified a number of locations as suitable for large scale industry including Carrigtwohill, Kilbarry, Little Island, Ringaskiddy and Whitegate. In all these locations, except Ringaskiddy, wind energy proposals can be considered on their merits and in relation to the criteria set out in objective INF 7-4.

Ringaskiddy, however, is located within a 'strategically unsuitable area' where wind energy proposals, although not ruled out, will generally be small in scale. 'Strategically unsuitable areas' are of high landscape sensitivity. It is the Council's view that this policy position in relation to wind energy at Ringaskiddy is inconsistent with its other objectives for Ringaskiddy (*i.e.* as a location for large scale industry) as well as in relation to encouraging business and industry generally to increase its use of wind energy, as a policy of reducing dependence of fossil fuels (and associated carbon emissions) and to increase energy security.

Therefore, the Council is considering a variation to the County Development Plan 2009, to bring the treatment of wind energy projects at Ringaskiddy in line with the treatment of similar projects in the other areas identified for large scale industry. The effect of this variation will be to enable wind energy proposals, of any scale, at Ringaskiddy to be considered on their merits in relation to the criteria set out in objective INF 7-4 and other proper planning considerations. There would be no change to the treatment of wind energy proposals in the other locations identified as suitable for large scale industrial development by objective ECON 3-2.

In order to assess the potential environmental consequences of varying the wind energy objective, Cork County Council intends to carry out a Strategic Environmental Assessment under Directive 2001/42/EC. As Ringaskiddy is close to the Cork Harbour SPA and the Great Island Channel SAC, a Habitats Directive Screening Assessment, under the EU Habitats Directive 1992/43/EEC, in respect of a proposed variation to the Cork County Development Plan, 2009, is also being carried out.

A Draft Scoping Report in line with the EPA's Guidance on the Preparation of SEA has been prepared by WYG Environmental and Planning (Ireland) Ltd (WYG), on behalf of Cork County Council.

Cork County Development Plan 2009-2015 Proposed Variation - SEA Scoping Report



In accordance with Article 13M of S.I. 436 of 2004, WYG, on behalf of Cork County Council, has issued this scoping document to the Environmental Protection Agency (EPA), Department of Marine, Energy and Natural Resources (DCENR) and Department of Environment, Heritage and Local Government (DEHLG), inviting for submissions or observations on the scope and level of detail of information to be contained in the SEA Environmental Report in respect of the proposed variation to the Cork County Development Plan, 2009.

2 Strategic Environmental Assessment

2.1 General

The Department of the Environment Heritage and Local Government has issued guidelines to Planning Authorities on the implementation of the SEA Directive (2001/42/EC). In summary, these guidelines divide the SEA process into a number of steps:

The SEA methodology involves the following main stages:

- Scoping the extent and level of detail to be examined in the Environmental Report and evaluation of feedback received from the scoping consultation process.
- Identify the content and main objectives of the variation to the Plan, its relationship with other plans and programmes and the reasonable alternatives considered.
- Establish the current (baseline) environment of the areas likely to be significantly affected by the implementation of the variation to the Plan.
- Identify the relevant aspects of the current state of the environment and their likely evolution without implementing the variation to the Plan (Do-Nothing Scenario). The assessment will focus on the "Key Issues" identified in the Scoping Report.
- Identify environmental protection objectives (National and EU Level), which are relevant to the Plan.
- Assessment of the impact of implementing the variation to the Plan.
- Consultation on the variation to the Plan and Environmental Report
- Production of the SEA Statement,
- Monitoring the environmental impacts of the variation to the Plan

The main outputs of the SEA process and their importance in the context of the SEA process are presented in **Table 2.1**.

Cork County Development Plan 2009-2015 Proposed Variation - SEA Scoping Report



Table 2.1: Main Outputs of the SEA Process

SEA Output	Description
Scoping Report	The purpose of the Scoping Report is to inform Environmental Authorities of the key elements of the variation to the Plan and the key environmental issues relevant to the variation to the Plan. It aims to generate comment from stakeholders on the scope and approach to the SEA and on the variation to the Plan itself.
Environmental Report	The Environmental Report contains an assessment of the likely significant effects (on biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above factors) of implementing the variation to the Plan.
SEA Statement	The main purpose of the SEA Statement is to provide information on the decision-making process making the process more transparent. It must be made available to the public to accompany the adopted variation to the Plan.

2.2 Scoping Stage

The purpose of the scoping stage of the SEA process is to develop an understanding of the environmental parameters that may be affected by the key measures proposed by the plan, and to set a framework for identifying and evaluating the impact of these measures on these environmental parameters.

The aim of the scoping stage is to decide on the extent and level of detail to be included in the Environmental Report. This is done through consultations with the designated environmental authorities.

The main stages in the scoping process are:

1. To determine the key goals and objectives of the variation to the Plan that relate to the environment;
2. To determine the key environmental issues to be assessed;
3. To report on relevant international, national and local policies, plans and programmes that may influence the variation to the plan;

Cork County Development Plan 2009-2015 Proposed Variation - SEA Scoping Report



4. To develop environmental objectives, indicators and targets
5. To identify reasonable alternative strategies of achieving the strategic goals of the variation to the Plan.

3 Proposed Variation to the Plan

3.1 Background Information

"The context for including specific renewable energy policies in a County Development Plan is set by a range of national and international initiatives and targets. It is a subject, which is at the core of the entire sustainable development idea. A gradual shift towards using renewable energy would mean:

- Reduced CO₂ emissions;
- Secure and stable energy supply for the long term;
- Reduced reliance on expensive fuel imports;
- Investment and employment in our indigenous renewable energy projects, often in rural and underdeveloped areas". (Source: CDP Section 6.7.6.)

With the potential for wind generated electricity to reduce the reliance of large scale industry on fossil fuel generated electricity, Cork County Council proposes to allow large scale proposals for wind energy to be considered in areas that have already been identified as appropriate for 'large scale industrial development'. Objective ECON 3-2 of the County Development Plan 2009 identifies five for large scale industrial development areas, namely Ringaskiddy, Whitegate, Carrigtwohill, Kilbarry, and Little Island.



The current objective relating to wind energy (INF 7-4) is presented in **Table 3.1** below:

Table 3.1: Current Wind Energy Objective INF 7-4

Wind Energy Projects

- a) It is an objective to encourage prospective wind energy businesses and industries. In assessing potentially suitable locations for projects, potential wind farm developers should focus on the strategic search areas identified in the Plan and generally avoid wind energy projects in the strategically unsuitable areas identified in this Plan.
- b) It is an objective to support existing and established businesses and industries who wish to use wind energy to serve their own needs subject to proper planning and sustainable development.
- c) It is an objective in the strategic search areas (and in those areas that are identified **as neither strategic search areas nor strategically unsuitable areas**), to consider new, or the expansion of existing, wind energy projects on their merits having regard to normal planning criteria including, in particular, the following:
 - The sensitivity of the landscape and of adjoining landscapes to wind energy projects;
 - The scale, size and layout of the project, any cumulative effects due to other projects, and the degree to which impacts are highly visible over vast areas;
 - The visual impact of the project on protected views and prospects, and designated scenic landscapes as well as local visual impacts;
 - The impact of the project on nature conservation, archaeology and historic structures;
 - Local environmental impacts including noise and shadow flicker;
 - The visual and environmental impacts of associated development such as access roads, plant, grid connections etc.
 - The proximity and sensitivity of a recognised settlement,
 - The impact of the project on archaeology and historic structures,
 - The impact of nature conservation, in particular avoiding designated and proposed European sites.
- d) Similar criteria would be taken into account in the strategically unsuitable areas except that suitable projects will generally be on a smaller scale and on very special, carefully chosen sites.

'Strategic Search Areas' and 'Strategically Unsuitable Areas' are defined in the CDP as follows:

- **STRATEGIC SEARCH AREAS:** Areas which have both relatively high wind speeds and relatively low landscape sensitivity to wind projects. These could be considered to be strategic 'search areas' for wind farm development. Prospective developers would be encouraged generally to focus on these areas

Cork County Development Plan 2009-2015 Proposed Variation - SEA Scoping Report



when searching for potentially suitable sites in County Cork. While not all locations within these areas would be suitable for wind projects, they do give a strategic representation of generally preferred areas.

- **STRATEGICALLY UNSUITABLE AREAS:** Areas which, because of high landscape sensitivity, are considered generally to be unsuitable for wind energy projects. While there may be a small number of locations within these areas with limited potential for small-scale wind projects, their contribution to any significant reduction in greenhouse gas emissions would be negligible. Except on a small scale and at particularly suitable locations, wind projects would normally be discouraged in these areas.

The large scale industrial development area of Whitegate, Carrigtwohill, Kilbarry and Little Island are neither part of the Strategic Search Areas nor the Strategically Unsuitable Areas so, as far as wind energy objective INF 7-4 is concerned, wind energy proposals are considered on their merits in relation to the criteria and other planning considerations.

Ringaskiddy, however, is located within a **Strategically Unsuitable Area** where wind energy proposals, although not ruled out, will generally be small in scale. It is the County Council's view that this policy position in relation to wind energy at Ringaskiddy is inconsistent with the other objectives for Ringaskiddy *i.e.* as a location for large scale industry and in relation to encouraging business and industry generally to increase its use of wind energy.

Therefore, the County Council is considering a variation to the County Development Plan 2009 so that, in line with the approach already taken with regard to other areas identified for large scale industry, Ringaskiddy is neither within an Area of Strategic Search nor in a Strategically Unsuitable Area for wind energy (**Table 3.2** and **Table 3.4** below). The effect of this variation will be to enable wind energy proposals, of any scale, at Ringaskiddy to be considered on their merits in relation to the criteria set out in objective INF 7-4 and other proper planning considerations.

There would be no change to the treatment of wind energy proposals in the other locations identified as suitable for large scale industrial development by objective ECON 3-2 (see **Table 3.3** below).



**Table 3.2: Proposed variation to the Development Plan Wind Energy Objective INF 7-4
(Note: Red bold and underlined denotes proposed Variation)**

Wind Energy Projects

- a) It is an objective to encourage prospective wind energy businesses and industries. In assessing potentially suitable locations for projects, potential wind farm developers should focus on the strategic search areas identified in the Plan and generally avoid wind energy projects in the strategically unsuitable areas identified in this Plan.
- b) It is an objective to support existing and established businesses and industries who wish to use wind energy to serve their own needs subject to proper planning and sustainable development. **In particular, because of the potential for wind generated electricity to reduce the reliance of large scale industry on fossil fuel generated electricity, proposals located within the areas identified as suitable locations for large scale industrial development in Objective ECON 3-2 of this plan will be considered on their merits.**
- c) It is an objective in the strategic search areas (and in those areas that are identified as neither strategic search areas nor strategically unsuitable areas), to consider new, or the expansion of existing, wind energy projects on their merits having regard to normal planning criteria including, in particular, the following:
- The sensitivity of the landscape and of adjoining landscapes to wind energy projects;
 - The scale, size and layout of the project, any cumulative effects due to other projects, and the degree to which impacts are highly visible over vast areas;
 - The visual impact of the project on protected views and prospects, and designated scenic landscapes as well as local visual impacts;
 - The impact of the project on nature conservation, archaeology and historic structures;
 - Local environmental impacts including noise and shadow flicker;
 - The visual and environmental impacts of associated development such as access roads, plant, grid connections etc.
 - The proximity and sensitivity of a recognised settlement,
 - The impact of the project on archaeology and historic structures,
 - The impact of nature conservation, in particular avoiding designated and proposed European sites.
- d) Similar criteria would be taken into account in the strategically unsuitable areas except that **(other than in areas to which Objective ECON 3-2 relates)** suitable projects will generally be on a smaller scale and on very special, carefully chosen sites.



Table 3.3: Industry Objective Econ 3-2

Econ 3-2	<p>Locations for Large-Scale Industrial Development:</p> <p>It is an objective to ensure that sufficient and suitable land is zoned for sustainable large-scale and general industry taking into account the objectives of this plan (including development to meet the likely needs of the chemical, pharmaceutical and oil refining sectors) at the major employment centres of Ringaskiddy, Whitegate, Carrigtwohill, Kilbarry and Little Island. Such land will, normally, be protected from inappropriate development that would prejudice its long-term development for these uses.</p>
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In addition, there is a proposed variation to the definition of Strategically Unsuitable Areas, as outlined below;

Table 3.4: Proposed variation to the definition of Strategically Unsuitable Areas

(Note: Red bold and underlined denotes proposed Variation)

Areas which, because of high landscape sensitivity, are considered generally to be unsuitable for wind energy projects. While there may be a small number of locations within these areas with limited potential for small-scale wind projects, their contribution to any significant reduction in greenhouse gas emissions would be negligible. Except on a small scale and at particularly suitable locations, wind projects would normally be discouraged in these areas. **However, because of the potential for wind generated electricity to reduce the reliance of large scale industry on fossil fuel generated electricity, for the avoidance of doubt, the areas identified as suitable locations for large scale industrial development in Objective ECON 3-2 of this plan are excluded from these areas and wind energy proposals in the areas referred to in ECON 3-2 will be considered on their merits.**

3.2 Geographic Scope of the Proposed Variation to the Plan

The geographical scope of the proposed variation is the area defined as Ringaskiddy in the County Development Plan as presented in **Figure 1** and in **Figure 2** below.

Cork County Development Plan 2009-2015 Proposed Variation - SEA Scoping Report



Figure 1: The Area Relating to the Proposed Variation (Ringaskiddy) and its Environs

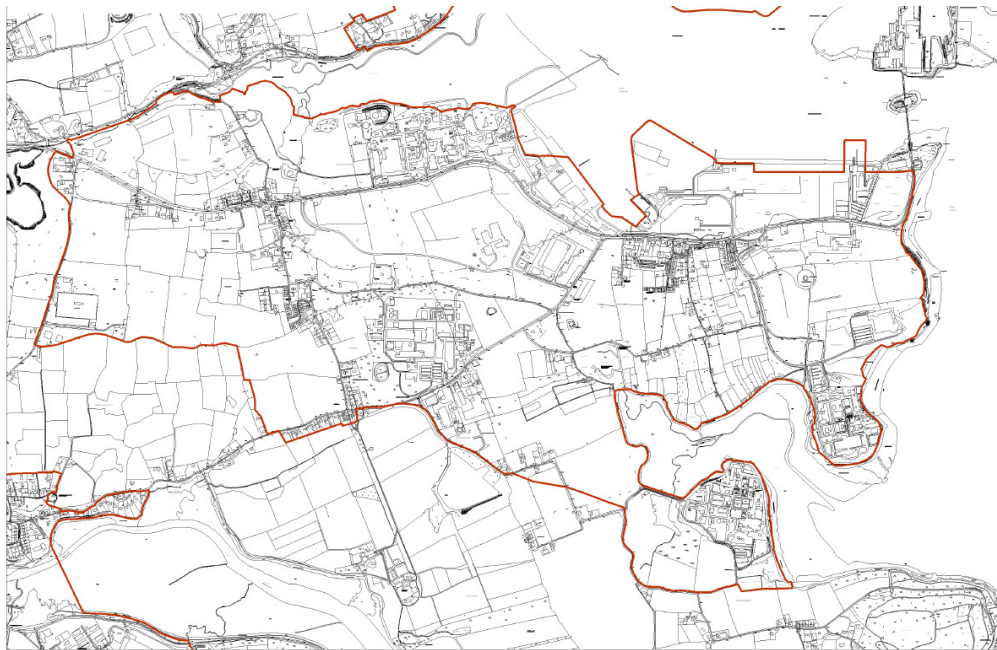


Figure 2: Ringaskiddy as defined by the Cork County Development Plan 2009.

Cork County Development Plan 2009-2015 Proposed Variation - SEA Scoping Report



3.3 Context of Plan Variation

As part of the SEA process the context of the variation to the Cork County Development Plan to must be established with regard to other plans and programmes that have been adopted at International, European and National Levels. In particular the interaction of the environmental protection objectives and standards included within these plans and programmes with the variation to the Plan.

Tables 3.4 to 3.7 summarise the findings of an initial review of environmental plans and programmes, adopted at International, European Community or National level, which would be expected to influence, or be influenced by, the proposed variation to the Development Plan.

The Environmental Report will continue this review and identify how these Plans and Programmes influence or are influenced by the Plan.

Table 3.4: Preliminary Review of Legislations, Plans, Policies and Programmes – International

Topic	Title	Summary of Objectives
Biodiversity	UN Convention on Biological Diversity (1992)	Objectives include the maintenance and enhancement of Biodiversity.
	The Ramsar Convention The Convention on Wetlands of International Importance (1971 and amendments)	Objectives include protection and conservation of wetlands, particularly those of importance to waterfowl as Waterfowl Habitat.
Climate	UN Kyoto Protocol The United Nations Framework Convention on Climate Change (UNFCCC) Kyoto Protocol 1997	Objectives seek to alleviate the impacts of climate change and reduce global emissions of GHGs.

Cork County Development Plan 2009-2015 Proposed Variation - SEA Scoping Report



Table 3.5: Preliminary Review of Legislations, Plans, Policies and Programmes – European Union

Topic	Title	Summary of Objectives
Air	The Air Framework Directive; Directive on Air Quality Assessment and Management (Framework Directive) (1996/62/EC)	Objectives include the prevention and/or reduction of airborne pollutants for the protection of human health and environment.
	Directive on National Emission Ceilings for Certain Atmospheric Pollutants (2001/81/EC)	Objectives seek to limit the national emissions of certain airborne pollutants for the protection of human health and the environment.
Biodiversity	The EU Biodiversity Strategy Communication on a European Community Biodiversity Strategy	Objectives seek to prevent and eliminate the causes of biodiversity loss and maintain and enhance current levels of biodiversity.
	The EU Habitats Directive (92/43/EEC)	Objectives seek to prevent and eliminate the causes of habitat loss and maintain and enhance current levels of biodiversity.
	The EU Birds Directive (EC/79/409)	Objectives seek to prevent and eliminate the causes of bird species loss and maintain and enhance current levels of biodiversity.
Climate	Second European Climate Change Programme (ECCP II) 2005.	Objectives seek to develop the necessary elements of a strategy to implement the Kyoto protocol.
	Adapting to climate change in Europe – options for EU action {SEC (2007) 849}	Objective is to kick-start a Europe-wide public debate and consultation on how to take forward possible avenues for action in adapting to climate change at EU level.
Sustainable	The Gothenburg Strategy (2001) Communication from	Objectives seek to make the future development of the EU more sustainable. Informs the 6 th EAP and the Irish

Cork County Development Plan 2009-2015 Proposed Variation - SEA Scoping Report



Topic	Title	Summary of Objectives
Development	the Commission on "a Sustainable Europe for a Better World"	sustainable development strategy.
	The SEA Directive (2001/42/EC)	Objective is to provide for a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans and programmes with a view to promoting sustainable development, by ensuring that, in accordance with this Directive, an environmental assessment is carried out of certain plans and programmes which are likely to have significant effects on the environment. Under the SEA Directive, the variation to the Cork County Development Plan would require an SEA.
	The EIA Directive (85/337/EEC)	Objective is to require Environmental Impact Assessment of the environmental effects of those public and private projects, which are likely to have significant effects on the environment.
Energy	European Energy Policy (2007) Communication from the Commission on "an energy policy for Europe".	Objectives include ensuring a competitive market, an integrated and interconnected market, a secure energy supply and reducing greenhouse emissions. A major objective is to increase the use of renewable energy sources with the target of increasing the proportion of renewable energies in the EU energy mix by 20% by 2020.
	Renewable Energy Directive (2009/28/EC)	Objectives include each Member State setting an individually binding renewable energy target, which will contribute to the achievement of the overall EU 20% renewable energy target goal by 2020.

Cork County Development Plan 2009-2015 Proposed Variation - SEA Scoping Report



Table 3.6: Preliminary Review of Legislations, Plans, Policies and Programmes – National

Topic	Title	Summary of Objectives
Air	Air Quality Standards Regulations 2002 (S.I. No. 271 of 2002)	Objectives include the reduction of certain airborne pollutants for the protection of human health and the environment.
	Ozone in Ambient Air Regulations 2004 (S.I. No. 53 of 2004).	Objectives include the reduction of certain airborne pollutants for the protection of human health and the environment.
	The Environmental Protection Agency Act 1992 (Ambient Air Quality Assessment and Management) Regulations 1999	Objectives include the reduction of certain airborne pollutants for the protection of human health and the environment.
Biodiversity	The National Biodiversity Plan (2002)	Objectives include the enhancement and conservation of biodiversity. Although such issues would be dealt with at local or site level, the Plan should have regard to these objectives and promote such objectives where possible.
	The Wildlife Act 1976. The Wildlife (Amendment) Act 2000	The Wildlife Act, 1976 and the Wildlife Amendment Act, 2000 are the principal statutory provisions providing for the protection of Wildlife (both Flora and Fauna) and the control of activities which may impact adversely on the conservation of Wildlife.
	European Communities (Natural Habitats) Regulations, SI 94/1997, as amended SI 233/1998 and SI 378/2005	These Regulations give effect to Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (Habitats Directive) and the Minister to designate special areas of conservation (endangered species and habitats of endangered species) as a contribution to an EU Community network to be known as NATURA 2000.

Cork County Development Plan 2009-2015 Proposed Variation - SEA Scoping Report



Topic	Title	Summary of Objectives
Climate	National Climate Change Strategy (2000) and National Climate Change Strategy 2007-2012	Objectives include the reduction of national GHG emissions (including those from the water sector). The Plan should give regard to these objectives and targets for reductions in CO ₂ equivalents from the water sector. Adaptation Section of Strategy outlines predicted future trends of climate change in Ireland and proposes adaptation measures.
Planning	National Spatial Strategy 2002-2020 (2002)	Objectives of the NSS are to achieve a better balance of social, economic and physical development across Ireland, supported by more effective planning.
	National Development Plan 2007 to 2013	Objectives of the NDP are to promote more balanced spatial and economic development.
Sustainable Development	European Communities (Environmental Assessment of Certain Plans and Programmes Regulations 2004 (S.I. 435 of 2004)	Objectives include protection of the environment and integration of plan making processes into the sustainable planning of the country as a whole. The EU SEA Directive was transposed into Irish Law under S.I. 435 in 2004.
Energy	The Energy Policy Framework 2007 – 2020: 'Delivering a sustainable energy future for Ireland'	Objectives include ensuring safe and secure energy supplies, promoting a sustainable energy future, and supporting competitiveness.
	The National Energy Efficiency Action Plan 2009 - 2020	Objective of this plan is to achieve 20% energy efficiency savings across the economy in 2020.
	National Renewable Energy Action Plan (2010)	Objective of the NREAP is to achieve 16% of energy from renewable sources by 2020 and is in line with Ireland's obligations under the Renewable Energy Directive (2009/28/EC).

Cork County Development Plan 2009-2015 Proposed Variation - SEA Scoping Report



Table 3.7: Preliminary Review of Legislations, Plans, Policies and Programmes – Regional and Local

Title	Summary of Objectives
Cork County Development Plan 2009 – 2015	The Cork County Development Plan 2009-2015 sets out an overall strategy for the proper planning and sustainable development of County Cork.
Carrigaline Electoral Area Local Area Plan (LAP) 2005	The Carrigaline Electoral Area Local Area Plan (LAP) 2005 considers the proper planning and sustainable development of Carrigaline Electoral Area which includes the coastal and harbour settlements of Crosshaven and Ringaskiddy and the satellite towns of Passage West, Ballincollig, and Carrigaline and must be consistent with the overall policies of the County Development Plan. The Carrigaline Electoral Area Local Area Plan Review Outline Strategy 2010 – 2020 was published in December 2009 for public consultation and is also considered in this SEA.
The National Climate Change Strategy 2007-2012	The National Climate Change Strategy 2007-2012 sees local authorities as the key agents for change at the local level in achieving target reductions through their waste management plans by ensuring those generating waste pay the full cost of waste collection, treatment and disposal.
The Atlantic Gateways Initiative	A Government initiative, augmenting the National Spatial Strategy, aimed to co-ordinate and focus development and infrastructure provision in a corridor linking the 'Gateway' cities of Galway, Limerick, Cork and Waterford, and, together with the 'Hub' towns, develop a critical-mass of population capable of competing with the Greater Dublin Region for future investment and delivering an appropriate balance in the delivery of jobs, services and opportunities between Dublin and the regions.
Regional Planning Guidelines for the South West Region	These guidelines aim to provide a broad canvas to steer the sustainable growth and prosperity of the region in line with the key principles of national strategy.
Cork Area Strategic Plan (CASP):	This plan was prepared jointly by the City and County Councils in 2001 to set out a shared vision for the Cork area for the period up to the year 2020. The plan establishes the concept of 'Metropolitan Cork' as an area embracing Cork City, its 'environs' (within the County) and the

Cork County Development Plan 2009-2015 Proposed Variation - SEA Scoping Report



Title	Summary of Objectives
	Metropolitan (or satellite) towns as an integrated unit where there is a single market for jobs and housing and where there is equality of access for all to shops and services, educational and cultural facilities.
County Cork Heritage Plan 2005-2010	Objectives are: to raise awareness and to promote appreciation and enjoyment of the heritage of Co. Cork; to develop and encourage best practice in relation to the management and care of heritage in Co. Cork and to deliver practical actions to achieve this; to gather and disseminate information about heritage in Co. Cork.
County Cork Biodiversity Action Plan 2009-2014	Objectives are: to review biodiversity information for County Cork and to prioritise habitats and species for conservation action; to collect data and use it to inform conservation action and decision making; to incorporate positive action for biodiversity into local authority actions and policy; to promote best practice in biodiversity management and protection; to facilitate the dissemination of biodiversity information; to raise awareness of County Cork's biodiversity and encourage people to become involved in its conservation.
Cork County Draft Landscape Strategy 2007	Objectives are to provide an explanation of Cork County's landscape by way of describing what the landscape actually entails, while highlighting how areas within the county have their own distinctiveness and character.



4 Environmental Baseline

4.1 General Information

This section provides preliminary environmental baseline information for the Ringaskiddy area. In line with the SEA Directive an environmental baseline is compiled for the SEA of the Variation of the Cork Development Plan. This will include:

- A description of the existing environment;
- Identification of the key environmental issues;
- A description of the expected environment should the variation not be implemented, *i.e.* in the absence of the variation to the plan.

The desk study data gathered data from the following online resources:

- National Parks and Wildlife Service (DoEHLG); (www.npws.ie)
- Record of Monuments and Places (DoEHLG); (www.archaeology.ie)
- EPA databases (*e.g.* groundwater and surface water quality etc.); (www.epa.ie)
- Geological Survey of Ireland (GSI) mapping, including groundwater maps; (www.gsi.ie)
- Corine and Landcover Land Use Databases; (www.epa.ie)
- Air Quality Archive; (www.epa.ie)

Additional information was obtained in the following sources

- BirdWatch Ireland I-WeBS data;
- Carrigaline Electoral Area Local Area Plan 2005
- Carrigaline Electoral Area Local Area Plan Review Outline Strategy 2010 – 2020
- Cork County Development Plan 2009 – 2015

4.2 Baseline Environment

Presented below is the baseline environment for each environmental aspect as required by Schedule 2B (f) of the Planning and Development (Strategic Environmental Assessment) Regulations 2004:

- Biodiversity, Flora & Fauna
- Population & Human Health
- Water
- Air & Climate

Cork County Development Plan 2009-2015 Proposed Variation - SEA Scoping Report



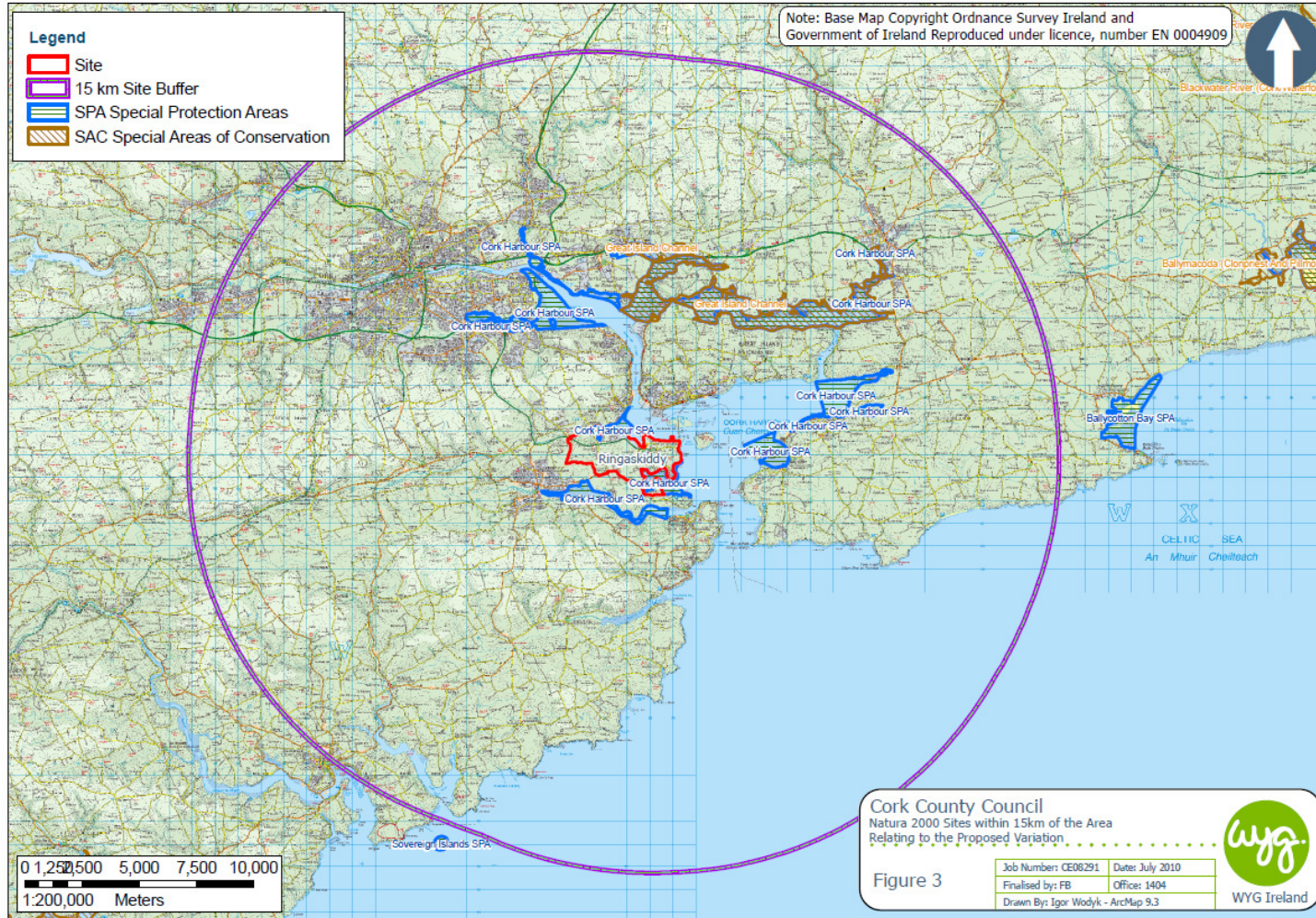
- Soils
- Material Assets (Infrastructure)
- Landscape & Land Use
- Cultural Heritage, including Architectural and Archaeological Heritage
- Interrelationship between the above factors

4.2.1 Biodiversity, Flora & Fauna

There are no environmental designations or protected areas within Ringaskiddy but there are two Natura 2000 sites within 15 km of Ringaskiddy and these are the Cork Harbour Special Protection Area (site code: 004030) and the Great Island Channel Special Area of Conservation (site code: 001058) (See **Figure 3** below). The Natura 2000 site network was established by the European Communities (Habitats) Directive 1992 and consists of Special Protection Areas (SPA) and Special Areas of Conservation (SAC). Special Protection Areas aim to protect birds and this designation originates from the Birds Directive.

The Great Island Channel SAC is approximately 5 km to the north of Ringaskiddy and comprises of the North Channel of Cork Harbour between Little Island to Midleton. It is an integral part of Cork Harbour which contains several other sites of conservation interest. Within the site is the estuary of the Owennacurra and Dungourney Rivers. The site is of major importance for sheltered tidal sand and mudflats and Atlantic salt meadows which are two habitats listed on Annex I of the EU Habitats Directive and also for its important numbers of wintering waders and wildfowl. It also supports a good invertebrate fauna.

Cork County Development Plan 2009-2015 Proposed Variation - SEA Scoping Report



Cork County Development Plan 2009-2015 Proposed Variation - SEA Scoping Report



The Cork Harbour Special Protection Area is a large sheltered bay system with several river estuaries – principally those of the Rivers Lee, Douglas and Owenacurra. The SPA comprises most of the main intertidal areas of Cork Harbour, including all of the North Channel, the Douglas Estuary, Owenboy Estuary, Inner Lough Mahon, Monkstown Creek, Lough Beg, Whitegate Bay and the Rostellan Inlet. Mudflat and other habitats within the SPA support very high numbers of wintering waterfowl, which feed on macroinvertebrates.

Cork Harbour has is of major ornithological significance, being of international importance both for the total numbers of wintering birds (*i.e.* > 20,000) and also for its population of Redshank. In addition, there are at least 15 wintering species that have populations of national importance, as well as a nationally important breeding colony of Common Tern. Several of the species which occur regularly are listed on Annex I of the E.U. Birds Directive, *i.e.* Whooper Swan, Golden Plover, Bar-tailed Godwit, Ruff and Common Tern. The site provides both feeding and roosting sites for the various bird species that use it.

Two of the intertidal areas of the Cork Harbour SPA are located immediately adjacent to Ringaskiddy with Monkstown Creek located to the north and Lough Beg to the south. Both of these areas are used by qualifying interest species such as cormorant, shelduck, oystercatcher, black-tailed godwit, curlew and redshank for feeding and roosting during the winter season (NATURA Environmental Consultants, 2010).

In addition to SACs and SPAs, there are a number of proposed Natural Heritage Areas (pNHAs) within several kilometres of the Plan variation area including several intertidal areas that are also part of the Cork Harbour SPA such as Monkstown Creek pNHA (site code 001979) and Lough Beg pNHA (site code 001066).

The Plan variation area itself is dominated by a number of habitats including industrial areas, improved agricultural grassland and tillage / arable land. The agricultural areas also contain a network of treelines and hedgerows including some mature treelines and small areas of woodland and scrub. Other habitats in the Ringaskiddy area include wet grassland and amenity grassland (*i.e.* golf course). Fauna within the Ringaskiddy area includes mammals such as badger, fox and bats such as common pipistrelle (Arup Consulting Engineers, 2008).

Key issues relating to Biodiversity, Flora & Fauna in relation to wind energy

The key issue in relation to biodiversity is the potential impact of turbines in Ringaskiddy on the important populations of wintering waterbirds in Cork Harbour. Wind turbines can impact on waterbirds through: collision risk with moving turbine blades; displacement of birds as they may avoid roosting and feeding

Cork County Development Plan 2009-2015 Proposed Variation - SEA Scoping Report



areas close to turbines; barrier effects by disrupting flight lines; and direct habitat loss if the turbines and associated infrastructure are built on foraging or roosting habitat.

4.2.2 Population & Human Health

There are two main villages in the Ringaskiddy area, Shanbally and Ringaskiddy, which are both located along the N28 national primary road. There are amenity facilities in these areas including a shop, national school and church at Shanbally and post office and public house at Ringaskiddy. There are one-off houses along local roads, in particular in the east of study area with a grouping of one-off houses in the Raffeen Bridge area and local roads close to Carrigaline.

The Carrigaline Review Outline Strategy (2010) states that there is “very limited expansion potential for residential uses because of the importance of the area for future industrial development” and the Carrigaline Local Area Plan (LAP) considers it “inappropriate to make provision for new housing on a large scale”.

The Carrigaline LAP 2005 states that “important planning issues for Ringaskiddy concern the economic importance of achieving the development of areas set aside for industry whilst protecting and enhancing the amenities enjoyed by the residential community and the area’s leisure facilities.”

The County Development Plan (CDP) states the plan for Ringaskiddy is the “re-affirmation of and provision for its strategic industrial and port related roles; very limited expansion of residential uses with amenity improvements to the village and improvement of community and recreational facilities.” In addition the CDP states that Ringaskiddy is classified as a “Strategic Employment Centre”.

In relation to Human health, wind turbines can cause a noise nuisance and shadow flicker, which can have human health issues on a local scale.

However, a reduction on the reliance of burning fossil fuels for electricity will result in an improvement in air quality and local health adjacent to power plants.

An increase in energy supply security and reduction in energy costs for manufacturing plants in the Ringaskiddy area will result in a more cost competitive environment and potentially result in job security for the Cork region.

Cork County Development Plan 2009-2015 Proposed Variation - SEA Scoping Report



Key issues relating to Population and Human Health in relation to wind energy

The scale of residential dwellings is reportedly small and future residential developments are likely to be minimal. The key issues relating to the local population may be visual impacts and potential human health issues relating to noise and shadow flicker.

4.2.3 Water

The Ringaskiddy is surrounded to the north, west and south east by a tidal estuary of Cork Harbour. The Glounatouig Stream flows into Monkstown Creek to the north east of Ringaskiddy and a tidal inlet, Lough Beg, is located to the south west.

Under the Water Framework Directive (2000/60/EC), coastal waters are classified in relation to the eutrophic state. There are four categories Eutrophic, Potentially Eutrophic, Intermediate and Unpolluted. The estuarine waters of Cork Harbour in the vicinity of Ringaskiddy are classified by the EPA as being 'Intermediate'.

No shell fishing protection zones are located around Ringaskiddy. Shell fish protection areas in Cork Harbour are located in Aghada in the east of Cork Harbour and Great Island Channel in the north of Cork Harbour, over 6 km from Ringaskiddy.

There are no 'blue flag' bathing waters are located within the vicinity of Ringaskiddy.

A review of the OS Discovery Series Map of the Area indicates that there are no significant surface water features in the Ringaskiddy area.

The groundwater bedrock aquifer is classified as locally important. In sandstone areas the aquifer is classified as Generally Moderately Productive (**Lm**) and in limestone areas the aquifer is described as Moderately Productive only in Local Zones (**LI**). The interim groundwater vulnerability classification indicates that the aquifer is of high to extreme vulnerability.

The GSI database indicates that there are productive groundwater wells at the Pfizer Lough Beg site and at private houses at the Raheen Cross roads area of Ringaskiddy. There may be other wells in the area which are not recorded by the GSI.



Key issues relating to Water in relation to wind energy

Construction of wind turbines may result in the excavation of topsoil and piling of subsoil and bedrock. This could lead to the generation of silty waters which can generally be managed by following best construction practice and is not considered a key issue.

The operation of wind energy should have minimal interaction with water bodies and therefore it is not a key issue.

4.2.4 Air & Climate

Air Quality Zone

Under the Air Framework Directive, regions of Ireland have been placed into zones. These zones are presented below:

- Zone A, B and C for Dublin, Cork and Other cities and large towns respectively.
- Zone D: Rural Ireland, i.e. the remainder of the State excluding Zones A, B and C.

Ringaskiddy is classified as Zone D – Rural Ireland. This indicates that generally the background air quality is of good quality and should be unpolluted by urbanisation.

Air Quality Index

The purpose of an air quality index is to express complex air quality information in simple terms.

Five bands are used in the Irish index:

- Very good
- Good
- Fair
- Poor
- Very poor

The index is based on a maximum of four parameters; the one-hour average of SO₂ (sulphur dioxide), NO₂ (nitrogen dioxide) and O₃ (ozone), combined with the rolling 24-hour average of PM₁₀ (particulate matter with diameter less than ten microns). The index for each of the four parameters is derived each hour and the overall index for the hour is equivalent to the lowest rating assigned to a parameter.

Cork County Development Plan 2009-2015 Proposed Variation - SEA Scoping Report



Index - values in parts per billion (ppb). PM₁₀ in ug m⁻³

	SO ₂ / ppb (1 hour avg.)	NO ₂ / ppb (1 hour avg.)	O ₃ / ppb (1 hour avg.)	PM ₁₀ / ug m ⁻³ (24 hour avg.)
Very Good	0 - 19	0 - 19	0 - 19	0 - 19
Good	20 - 49	20 - 49	20 - 59	20 - 49
Fair	50 - 79	50 - 74	60 - 89	50 - 74
Poor	80 - 129	75 - 104	90 - 119	75 - 99
Very Poor	≥130	≥105	≥120	≥100

Index - values in ug m⁻³.

	SO ₂ / ppb (1 hour avg.)	NO ₂ / ppb (1 hour avg.)	O ₃ / ppb (1 hour avg.)	PM ₁₀ / ug m ⁻³ (24 hour avg.)
Very Good	0 - 49	0 - 36	0 - 39	0 - 19
Good	50 - 129	37 - 94	40 - 119	20 - 49
Fair	130 - 209	95 - 139	120 - 179	50 - 74
Poor	210 - 349	140 - 199	180 - 239	75 - 99
Very Poor	≥350	≥200	≥240	≥100

(Above text and table from EPA website)

The EPA conducted air monitoring at Monkstown in Cork Harbour between August 2007 and March 2008 for PM₁₀, NO_x, SO_x, CO and metals. Monkstown is located approximately 1 km north of Ringaskiddy. The overall air quality was classified by the EPA as 'Good'.

Key issues relating to Air and Climate in relation to wind energy

Most, if not all energy/electricity usage in the Ringaskiddy area is sourced from outside the area. Therefore the production of electricity from wind energy is unlikely to have a significant change in local air quality.

However, the industries in the area are high electricity consumers. Therefore, the use of renewable energy sources will have a positive affect on the regional and national consumption of fossil fuels and carbon emissions. Therefore, there will be a positive effect and this is a key issue.

Cork County Development Plan 2009-2015 Proposed Variation - SEA Scoping Report



4.2.5 Soils

The Geological Survey of Ireland (GSI) online database (www.gsi.ie) indicates that the underlying bedrock of Ringaskiddy comprises of Dinantian Mudstone and Sandstones of the Cork Group and Dinantian pure unbedded limestone.

The GSI subsoils map indicates that the main subsoil in the area is till derived from Devonian sandstones. Made ground is located in the area of industrial facilities.

The main soils in the area are acid brown earth and brown podzols. There are no peaty soils in the area.

Key issues relating to Soils in relation to wind energy

The construction of wind turbines is likely to require excavation of soils and possibly bedrock. As Ringaskiddy is not located in a peaty area there is minimal chance of land slides which are associated with windfarm developments in upland peat areas. However, this is obviously subject to best construction practice and full stability/geo-technical studies being carried out in advance of construction works commencing. Therefore, soils are not considered to be a key issue in relation to wind energy.

4.2.6 Material Assets (Infrastructure)

Ringaskiddy is an important industrial area and as such has significant infrastructure. The N28 National Primary road runs in an east west direction along the northern part of Ringaskiddy and connects Ringaskiddy with Cork city and beyond. The R613 regional road connects Ringaskiddy with Carrigaline and there are also a number of local roads in the area. A car ferry terminal is located at the deep water port. Refer to **Figures 1** and **2** for maps of the area.

Ringaskiddy is a major industrial district. A number of pharmaceutical facilities operate in Ringaskiddy Area and the Lower Harbour, including Pfizer Ringaskiddy, Pfizer Lough Beg, DePuy, GSK, Centocor and Novartis. Other industries in the area are Hammon Lane Metal, Crosbie Trans Car Depot and the Ringaskiddy deepwater port with associated car ferry. In addition, the National Maritime College of Ireland is located in the area and the Irish Navy base is located on Haulbowline Island, immediately north east of the area. Another infrastructural facility is a limestone quarry located in the eastern part of the Ringaskiddy area.

The Windfarm Planning Guidelines (DEHLG) recommends consideration of the following:

- Air traffic flight lines;
- Overhead power lines;

Cork County Development Plan 2009-2015 Proposed Variation - SEA Scoping Report



- Broadcast communications.

Cork Airport is located approximately 10 km to the east. Consideration of the flight lines is required.

There is a significant volume of overhead power cables in the Ringaskiddy area which supply electricity to the manufacturing facilities. Adequate clearance between overhead power lines and wind turbines must be considered. There is a statutory obligation to notify the electricity distributor of proposed developments within 23 metres of any transmission or distribution line.

Wind turbines produce electromagnetic radiation and can interfere with broadcast communications. This interference can be overcome by the installation of deflectors or repeaters. Radio, television and mobile phone masts may be in the area.

There are four **Seveso** sites within the Ringaskiddy and Lower Harbour area, as presented in the Carrigaline LAP mapping. These relate to the manufacturing facilities of Pfizer Ringaskiddy, Pfizer Lough Beg, Novartis and GSK. The designation of a site as a 'Seveso' site can mean that restrictions apply to proposed land uses in the surrounding area.

Key issues relating to Material Assets in relation to wind energy

Key infrastructural issues which should be considered, as outlined in the Windfarm Planning Guidelines (DEHLG), are interference with air traffic flight lines, overhead power lines and broadcast communications.

The presence of Seveso sites within the Ringaskiddy area may need to be considered as there can be planning restrictions in such areas, although a wind turbine is unlikely to be a significant risk.

During the delivery of turbines there may be restrictions on traffic due to large loads. This is not considered a key issue as it would be a short time and often turbines are imported via the deep water port in Ringaskiddy.

Cork County Development Plan 2009-2015 Proposed Variation - SEA Scoping Report



4.2.7 Landscape & Land Use

Description of Ringaskiddy Landscape and Land Use

The Ringaskiddy Area forms part of a peninsula located on the western side of the Lower Cork Harbour and is surrounded by estuarine waters. Monkstown Creek is located to the east and Lough Beg is located to the south east. The N28 national road runs in an east west direction along the northern part of the area. The land rises from the coast to a ridge along the centre of the peninsula, intercut with local roads. The highest point is 53 m at Barnahely in the centre of the study area. A Martello Tower is located on a high point at the eastern headland, providing commanding views of the harbour and of the eastern parts of Cork Harbour.

The landscape of Ringaskiddy is dominated by intensive agriculture and manufacturing facilities. Haulbowline Island is located directly to the north and is accessed by a bridge. Further north, across the harbour is the town of Cobh and Great Island. Spike Island is located to the north east of Ringaskiddy. Ringaskiddy forms part of the views from Cobh, which take in Haulbowline Island and Spike Island, with Ringaskiddy positioned behind Haulbowline.

Summary of previous landscape studies of Cork Harbour and Ringaskiddy

The landscape of Ringaskiddy has been addressed and assessed in a number of studies which are summarised below. These studies are:

- Cork County Draft Landscape Strategy (2007)
- County Development Plan – Scenic Landscape
- County Development Plan - Scenic Routes
- County Development Plan – Strategic Wind Energy Areas

Cork County Draft Landscape Strategy

Cork County Council prepared the Cork County Draft Landscape Strategy in 2007 (CCDLS 2007). “The draft strategy aims to provide an explanation of Cork County’s landscape by way of describing what the landscape actually entails, while highlighting how areas within the county have their own distinctiveness and character.

Cork County Development Plan 2009-2015 Proposed Variation - SEA Scoping Report



Landscape Character Assessment is a process of assessment, which focuses on characterisation *i.e.* the discernment of the character of the landscape based on its land cover and landform but also on its values such as historical, cultural, religious and other understandings of the landscape. It concentrates on the distinctiveness of different landscapes and an understanding of how different kinds of development can be accommodated within them” (CCDLS 2007).

An evaluation of a Landscape Character Type is completed in terms of:

- Landscape Value - the environmental or cultural benefits, including services and functions, which are derived from various landscape attributes;
- Landscape Sensitivity - the measure of a landscape’s ability to accommodate change or intervention without suffering unacceptable effects to its character and values;
- Landscape Importance - importance of a landscape rated as Local, County, or National.

The Draft Strategy describes Cork Harbour as follows - “Overall, the landscape of the city and harbour area comprises a mix of rural and intensely urban areas, combined with a large expansive harbour. To the south of the city, the western side of the harbour supports major industrial development, while on higher ground telecommunication masts or water storage towers punctuate the skyline. The harbour includes large islands, which, along with much of the harbour shore, comprises landscape of fertile farmland which slopes gently to the sea. It comprises a mosaic of fertile fields of mixed use on brown podzols. The rural areas around much of the greater harbour area are now characterised by a prevalence of infrastructure such as roads, bridges and electricity power lines and some urban sprawl. The narrow harbour mouth is defined by two hilltops with old military fortifications on their summits” (CCDLS 2007).

The overall classification of Cork Harbour and Estuary is:

- Landscape Value: Very High – (defined as scenic landscapes with highest natural and cultural quality, areas with conservation interest and of national importance).
- Landscape Sensitivity: Very High – (defined as extra vulnerable landscapes likely to be fragile and susceptible to change).
- Landscape Importance: National

The CCDLS also notes that Cork Harbour has the “largest concentration of pharmaceutical companies in the country (and) is located within this landscape. The harbour area accommodates nationally significant employment clusters at Ringaskiddy, Little Island and Whitegate in particular”.

Cork County Development Plan 2009-2015 Proposed Variation - SEA Scoping Report



The CCDLS recommendations include:

- "To Maintain and enhance views of the harbour. Proposals for development in the harbour should respect the sensitivity of this landscape and in particular should have regard to its rich and diverse natural heritage and concentration of Natural Heritage Areas that are designated for protection and the relationship between these and the built environment.
- Proposals for medium and large scale business, retail and industrial uses, which may impact on the character of the harbour area, must consider the landscape implications at the outset and so a landscape scheme should be submitted with planning applications.
- Promote Spike Island as an amenity site". (Spike Island is located less than 1km east of Ringaskiddy). (CCDLS 2007)

County Development Plan - Scenic Landscape

The County Development Plan 2009 presents the 'Scenic Landscape' areas of Cork Harbour in **Figure 4** below. It should be noted that majority of the Ringaskiddy Area is not recognised as a Scenic Landscape as presented in **Figure 4**.

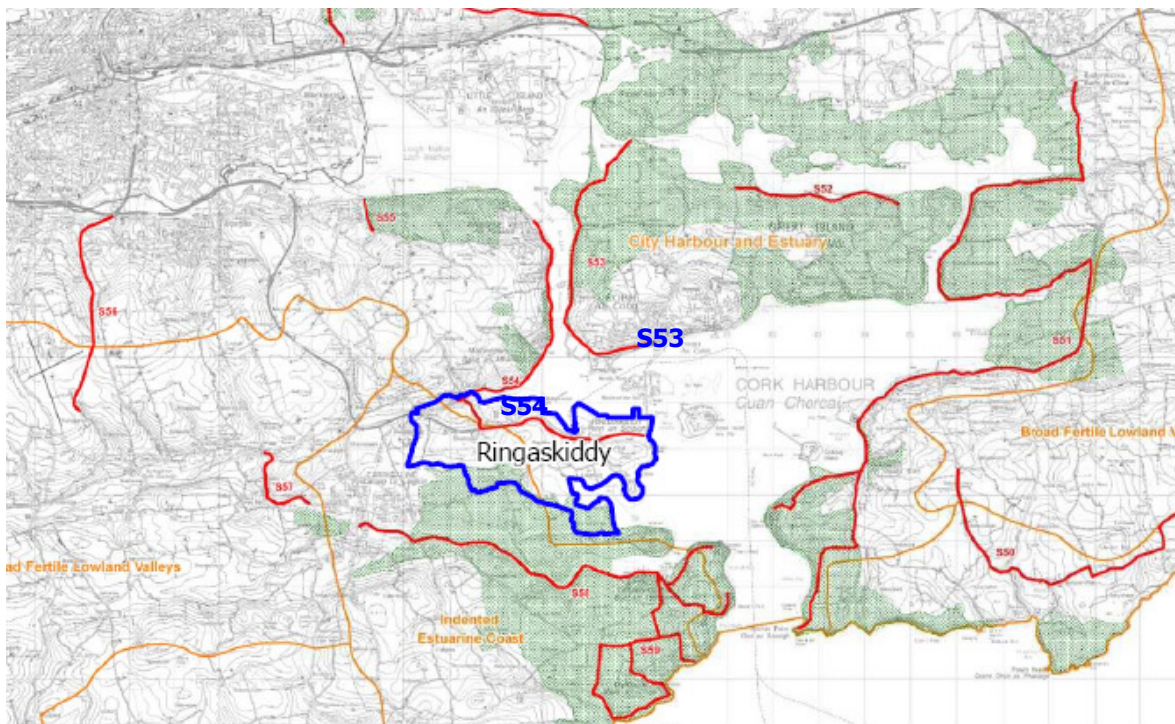


Figure 4: Landscape Map 16 of Cork Harbour from County Development Plan. Areas shaded in green are 'Scenic areas' and red lines are 'scenic routes'.

Cork County Development Plan 2009-2015 Proposed Variation - SEA Scoping Report



County Development Plan - Scenic routes

Scenic Routes are selected for their “important and valued views and prospects within the County” (CDP Section 7.2.30). “Scenic routes act as indicators of high value landscapes and identify more visually sensitive locations where higher standards of design, siting and landscaping are required. Scenic routes highlight the quality of the overall environment and landscape experienced within Cork County. It is important to protect the character and quality of those particular stretches of scenic routes that have special views and prospects particularly those associated with Scenic Landscapes.” (CDP Section 7.2.31). “Whilst advocating the protection of such scenic resources the plan also recognises the fact that all landscapes are living and changing, and therefore an objection in principle to development situated on or adjoining scenic routes is not proposed.” (CDP Section 7.2.32).

The County Development Plan 2005 identifies two scenic routes which either traverse Ringaskiddy (Scenic Route S54) or have a view of Ringaskiddy (Scenic Route S53). Further information on the scenic routes presented in **Table 4.1** below and the location on the routes are presented in **Figure 4** above.

Scenic Route S53: The southern part of this route provides a vista from Cobh of Lower Harbour including Haulbowline Island and Spike Island and Ringaskiddy.

Scenic Route S54: The southern part of this route traverses along the N28 road within the Ringaskiddy area. The route is recognised for its views of the Harbour and Cobh. Industry is one of the key landscape characteristics.

County Development Plan - Strategic Wind Energy Areas

The County Development Plan set out two special types of areas for consideration for wind energy, firstly ‘Strategic Search Areas’ – which have relatively high wind speeds and relatively low landscape sensitivity to wind projects. The second category is ‘Strategically Unsuitable Areas’, which are areas that because of high landscape sensitivity are considered generally unsuitable for wind energy projects. Further information on these categories is presented in Section 3.1 above.

Almost the entire length of the Cork coast line, from Youghal to the Beara peninsula is classified as Strategically Unsuitable Areas as presented in **Figure 5** below. However, most of Cork Harbour is neither classified as Strategic Search Areas nor Strategically Unsuitable Areas. The exception is a small part of the Lower Cork Harbour which has been classified as being a Strategically Unsuitable Area. This includes

Cork County Development Plan 2009-2015 Proposed Variation - SEA Scoping Report



Crosshaven, Currabinny and Ringaskiddy on the western mouth of the harbour. On the eastern mouth of the estuary the Strategically Unsuitable Area is located around Roaches Point.

Key issues relating to Landscape and Land Use in relation to wind energy

There can be a general public concern regarding the aesthetics of wind turbines. The Cork County Draft Landscape Strategy has identified Cork Harbour and Estuary as being of very high landscape value, very high landscape sensitivity and indicating high landscape sensitivity.

With regards to the provision of wind energy, Ringaskiddy is currently designated as a Strategically Unsuitable Area for large scale turbines due to being part of a highly sensitive landscape. Two scenic routes are located either within or overlook Ringaskiddy. In turn however, the CDP Scenic Landscape map of the area classifies only a small part of the Ringaskiddy area as being a 'scenic area', mainly around Currabinny.

Based on these facts, landscape is a key issue in the context of the proposed variation.

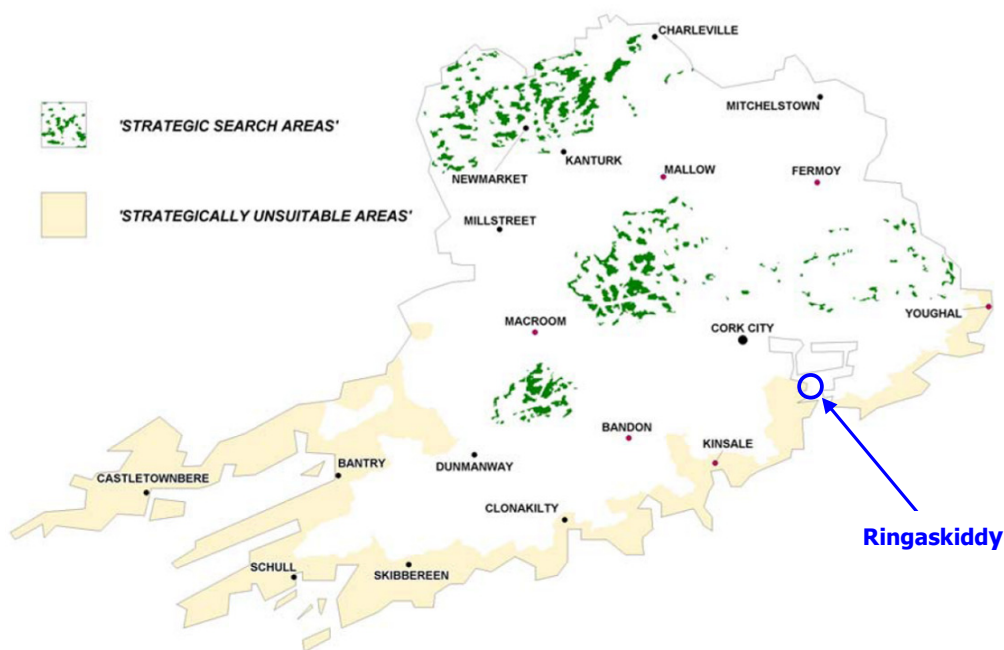


Figure 5: Strategic Wind Energy Areas (CDP 2005)

Cork County Development Plan 2009-2015 Proposed Variation - SEA Scoping Report



Table 4.1: Scenic routes within the environs of Ringaskiddy.

Scenic Route Ref	Location	Description of view	Does Route run Through or adjoin Special Scenic Landscape	Overall Landscape Value	Main Features of Land Cover	Structures of Historic or cultural Importance visible from route	Key Characteristics of land use
S53	R642 Regional Road, between Cobh and Belvelly. This route does not traverse Ringaskiddy.	Views of the upper Harbour and coastal environment	Yes	Very High	Settlement, vegetation, estuary & one-off housing	Haulbowline Island and Cobh Cathedral	Settlement, residential & associated harbour uses
S54	R610 Regional Road, local road & N28 National Primary Route between Passage West and Ringaskiddy.	View of the Harbour	Yes	Very High	Cork Harbour & Great Island	Cobh Cathedral, Martello Tower & Naval Base	Industry, residential, amenity, maritime, commercial & agriculture

*Abridged from 2009 County Development Plan

Cork County Development Plan 2009-2015 Proposed Variation - SEA Scoping Report



4.2.8 Cultural Heritage, including Architectural and Archaeological Heritage

A number of protected structures are located within or close to Ringaskiddy Area as presented in **Table 4.2** below. Of particular prominence is the Martello Tower (RPS No. 575) located on the high ground at the eastern end of the area. The Martello Tower is a 18th Century defensive structure which commands a fine view of the estuary.

Table 4.2: List of protected structures within or close to Ringaskiddy Area

RPS* No.	Name of Structure	Townland
00575	Martello Tower	Ringaskiddy
00577	Coolmore House (abandoned)	Coolmore
00578	Martello Tower	Haulbowline Island
00670	Range of Limestone Warehouses & Offices	Haulbowline Island
01260	Castlewarren Stronghouse	Barnahely
01272	Westmoreland Fort (Fort Mitchell)	Spike Island
01290	Rivendell Cottage	Currabinny

*RPS = Record of Protected Structures

Part of Haulbowline Island is designated as "Haulbowline Conservation Area", an Architectural Conservation Area, in the County Development Plan.

Key issues relating to Cultural Heritage in relation to wind energy

The situation of protected monuments on the landscape may be compromised by wind turbines. There are a number of protected monuments in the Ringaskiddy area. This is therefore identified as a key issue.

Cork County Development Plan 2009-2015 Proposed Variation - SEA Scoping Report



4.2.9 Interrelationship between the above factors

In accordance with Schedule 2B (f) of the SEA directive, the inter-relationship between the SEA environmental topics must be taken into account. Potential interactions are outlined below:

Table 4.3: Interactions between factors

Biodiversity Flora & Fauna								
Population & Human Health	y							
Water	y	y						
Air & Climate	y	y	x					
Soils	y	x	y	x				
Material Assets	y	y	y	x	y			
Landscape & Land Use	y	y	y	x	x	y		
Cultural Heritage	y	y	y	x	x	y	y	
	Biodiversity	Population	Water	Air & Climate	Soils	Material Assets	Landscape	Cultural Heritage

Key: y = potential interaction, x = potentially no interaction



4.3 Do nothing scenario

At present the main land use in Ringaskiddy is a mixture of industry/commercial enterprises and agriculture. As presented in **Figure 6** below, the main concentration of industrial activity is along the coastline (light blue areas). The majority of the other parts of Ringaskiddy are zoned for industry/enterprise (dark blue) which are at the moment agricultural lands.

If the wind energy enterprise does not occur, it is likely that overtime there will be a significant land usage change in the area from agriculture to industry/enterprise, with resulting changes in landscape.

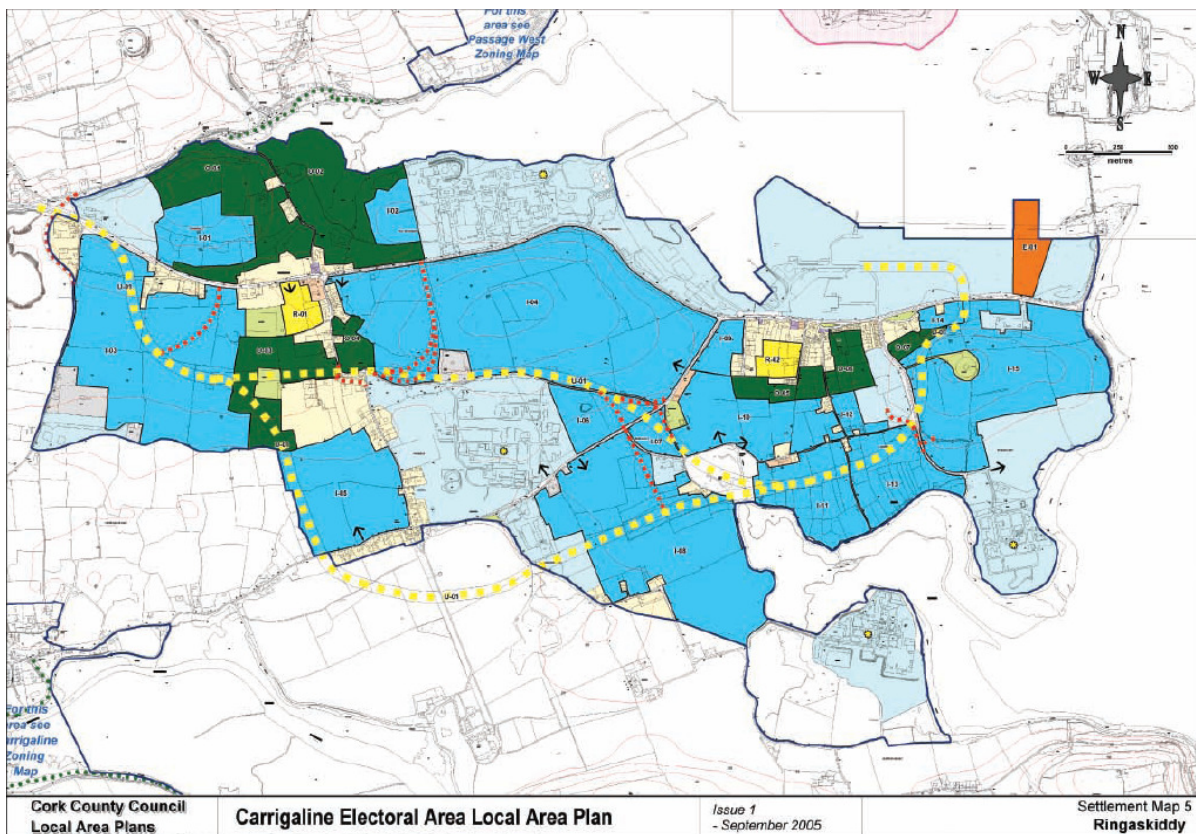


Figure 6: Zoning map of Ringaskiddy. Light blue are current industrial areas and dark blue are zoned for industry/enterprise (Carrigaline Electoral Area Local Area Plan 2005).



5 Preliminary Scoping of SEA Environmental Aspects

This section of the scoping document outlines the preliminary scoping exercise which has been undertaken. Positive and negative effects of the variation to the plan which are likely to be significant have been taken into consideration. A summary of the preliminary scoping exercise is outlined below.

Environmental Aspects	Potential Positive or Negative Effects	Preliminary Scoping Summary
Biodiversity, Flora & Fauna	There is a potential for a negative impact on the important wintering waterbird populations in Cork Harbour due to the presence of wind turbines in Ringaskiddy.	Due to potential negative impacts on wintering waterbirds, biodiversity, flora and fauna is scoped in .
Population & Human Health	<p>There may be some noise or shadow flicker effects of turbines. Issues regarding noise and shadow flicker should be addressed at a project level and therefore are not considered a significant effect at SEA level.</p> <p>Overall reduction in use of fossil based fuel sources for energy production may reduce air pollution – having a positive impact on human health in the locality of power plants.</p> <p>An increase in energy security for manufacturing plants in the Ringaskiddy area will have a positive effect on employment in the Cork Region.</p>	However, at a Cork regional scale of secured employment and a reduction of fossil fuel emissions helping human health in energy production areas, it is considered that population and human health is scoped in .
Water	No significant negative or positive effects on water have been identified in the scoping study.	As no significant negative or positive effects on water have been identified, water is scoped out .

Cork County Development Plan 2009-2015 Proposed Variation - SEA Scoping Report



Environmental Aspects	Potential Positive or Negative Effects	Preliminary Scoping Summary
Air & Climate	There is a potential for reduction in carbon emissions due to use of wind energy and a reduction in use of fossil fuels. This could have a significant positive effect	Air and climate is scoped in due to positive effects on climate change of using wind energy.
Soils	No significant negative or positive effects on soils have been identified in the scoping study.	As no significant negative or positive effects on soils have been identified, soils are scoped out .
Material Assets	Potential interference with air flight path lines, broadcast communications and overhead power lines. Therefore there is potential for negative effects.	Due to potential negative impacts on infrastructure, material assets is scoped in .
Landscape & Landuse	Due to the high value landscape and landscape sensitivity, there is potential for negative impact.	Due to potential negative impacts on the landscape of the Cork Harbour, landscape and land use is scoped in .
Cultural Heritage, including Architectural and Archaeological Heritage	Due to the presence of protected monuments there is potential for negative impact if turbines are insensitively placed in relation to these monuments.	Due to potential negative impacts on cultural heritage, this category is scoped in .



6 Environmental Objectives, Targets and Indicators

SEA uses a system of objectives, targets and indicators to rationalize information for the purposes of assessment. SEA environmental objectives provide a benchmark 'intention' against which the environmental effects of implementing a Plan or variation to a Plan are measured. Targets identify the threshold or limits to be achieved from the objective, while indicators monitor this achievement and essentially how a Plan or variation to a Plan is impacting on the receiving environment.

The preliminary list of objectives for this SEA are presented below in **Table 6.1** and these have been developed with reference to European and national guidance on SEA and to published indicators for Ireland and published SEA examples. Targets and indicators are not presented here as they will be determined during the preparation of the Environmental Report.

Table 6.1: Strategic Environmental Objectives

Environmental Aspect	Strategic Environmental Protection Objective
Biodiversity, Flora & Fauna	B.1. Prevent damage to biodiversity, particularly EU designated sites and protected species.
Population & Human Health	P.1. Improve energy security.
Air & Climate	A.1. Reduce greenhouse gas/carbon emissions.
Landscape & Landuse	L.1. Minimise the landscape impact of new wind turbines and protect the character, diversity and special qualities of landscapes.
Material Assets	M.1. Promote sustainable energy infrastructure and practices.
Cultural Heritage, including Architectural and Archaeological Heritage	C.1 Protect the character, diversity and special qualities of cultural heritage, architectural and archaeological heritage.



7 Assessment of Alternatives

Details of the preliminary list of alternatives considered are given in **Table 7.1** below. As the proposed variation to the Cork County Development Plan 2009 refers only to Ringaskiddy, it is not possible to a spatial alternative and alternatives considered can only alter the intensity of the policy proposed for Ringaskiddy.

Table 7.1: Summary of Draft Alternatives under Consideration

Option	Title	Description
0	Do Nothing	Status Quo. No change of the status of Ringaskiddy as being in a 'Strategically Unsuitable Area' where wind energy proposals, although not ruled, will generally be small in scale.
1	The Proposed Variation	The proposed variation which would involve the removal of Ringaskiddy from the list of 'Strategically Unsuitable Areas' and would enable wind power proposals located within the areas identified as suitable locations for large scale industrial development in Objective ECON 3-2 of the Cork County Development Plan 2009 to be considered on their merits (See Section 3 above for more details).
2	Variation to include Ringaskiddy as a 'Strategic Search Area' for Wind Farm development	This variation would involve removing Ringaskiddy from the list of 'Strategically Unsuitable Areas' and including it instead in the list of 'Strategic Search Areas' where prospective wind farm developers would be generally encouraged to focus on when searching for potentially suitable sites in County Cork.



8 Conclusion on Proposed Scope of SEA

As detailed above, the scope of the SEA environmental report will include assessments of the impacts of the proposed variation to the Cork County Development Plan 2009 – 2015 on: Biodiversity, Flora & Fauna; Population & Human Health; Air & Climate; Material Assets; Landscape & Landuse; and Cultural Heritage, including Architectural and Archaeological Heritage. Two of the main issues identified during the scoping process are the potential impacts on the wintering waterbird populations in Cork Harbour from the construction of wind farms in Ringaskiddy and the impact of wind turbines on the landscape of Cork Harbour.

The draft SEA environmental objectives are to: prevent damage to biodiversity, particularly EU designated sites and protected species; improve energy security; secure employment particularly; reduce greenhouse gas/carbon emissions; and minimise landscape impact.

Further input and refinement of the scope of the SEA will be made following the receipt of submissions from the statutory consultees (*i.e.* Environmental Protection Agency, Department of Environment, Heritage and Local Government, and Department of Communications, Energy and Natural Resources) during the consultation process.



9 Further Consultation & Timeframe

To begin the process of scoping the SEA for the proposed variation to the Cork County Development Plan 2009 – 2015 there will be initial consultation with the statutory authorities, in accordance with Article 13M of S.I. 436 of 2004, to obtain submissions or observations on the scope and level of detail of information to be contained in the SEA Environmental Report in respect of the proposed variation to the Plan. This scoping report will be sent to the following statutory consultees:

- Environmental Protection Agency;
- Department of Environment, Heritage and Local Government (Development Applications Unit);
- Department of Communications, Energy and Natural Resources

All scoping submissions should be received by Monday 30th August 2010 at the latest and should be addressed to:

Mr. Mark Masterson,
WYG Ireland,
Unit 2, University Technology Centre,
Curraheen Road,
Bishopstown,
Cork.
Email: mark.masterson@wyg.com

Cork County Council propose to present the SEA Environmental Report and the Appropriate Assessment to the Elected Members on 13th September 2010. Subject to the deliberations of the Elected Members of the Council, it is proposed to place the SEA Environmental Report and the Appropriate Assessment on show for the public to view on 20th September 2010.

Cork County Development Plan 2009-2015 Proposed Variation - SEA Scoping Report



10 References

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Department of Environment, Heritage and Local Government (2004). *Implementation of SEA Directive (2001/42/EC). Assessment of Certain Plans and Programmes on the Environment. Guidelines for Regional Planning Authorities*. November 2004.

NATURA Environmental Consultants (2010) *Proposed Windfarm Development at Ringaskiddy and Lough Beg, Co. Cork – Avian Impact Assessment – Winter Bird Surveys 2009/2010 for the Lower Harbour Energy Group. Progress Report3*, April 2010.

Cork County Development Plan 2009
Variation No 2: Wind Energy
Final SEA Environmental Report



Appendix C
SEA Scoping Responses

From: Coordination Unit [mailto:Coordination.Unit@dcenr.gov.ie]

Sent: 30 August 2010 10:53

To: mark.masterson

Subject: Scoping request for the SEA in respect of a proposed variation to the Cork County Development Plan 2009

Monday, 30 August 2010

Mr. Mark Masterson,
Senior Consultant,
WYG Ireland,
PH McCarthy House,
Nutgrove Office Park,
Nutgrove Avenue,
Rathfarnham,
Dublin 14

Our Ref: 5452

Re: Scoping request for the SEA in respect of a proposed variation to the Cork County Development Plan 2009.

Dear Mark,

With reference to your correspondence dated 4th August 2010 re above.

The Department of Communications, Energy and Natural Resources have no observations/comments to make on this scoping request. This is without prejudice to any comments/observations Inland Fisheries Ireland may have in this regard.

Regards,
Seána

Seána McGearty
Co-ordination Unit,
Dept. Communications, Energy & Natural Resources,
Elm House,
Earlsvale Road,
Co. Cavan

Ph: +353 (0)1 678 2910

Fax: +353 (0)1 678 3057

Email: seana.mcgearty@dcenr.gov.ie

Note: please don't print this email unless necessary



Comhshaol, Oidhreacht agus Rialtas Áitiúil
Environment, Heritage and Local Government



30th August 2010

WYG Environmental & Planning (Ireland) Ltd.,
PH McCarthy House,
Nutgrove Office Park,
Nutgrove Avenue,
Rathfarnham,
Dublin 14

Your Ref: CE08291/20100804cs1

Our Ref: G2010/437

Re: Scoping Request for the Strategic Environmental Assessment in respect of a proposed variation to the Cork County Development Plan, 2009-2015

A chara,

I refer to your letter of 4th August seeking comments on the above mentioned scoping request. Please find, outlined below, the archaeological and architectural heritage observations of the Department of the Environment, Heritage and Local Government.

Archaeology

The following issues should be addressed:

General policies relating to the archaeological heritage

The council will protect the archaeological heritage from damage, including any hitherto unrecorded sites.

Specific objectives relating to Recorded Monuments and any other archaeological features:

It should be an objective of the Planning Authority to secure the preservation in-situ of, or preservation by record of:

The archaeological monuments included in the Record of Monuments and Places as established under section 12 of the National Monuments (Amendment) Act, 1994

Any sites and features of historical and archaeological interest

Any subsurface archaeological features that may be discovered during the course of infrastructural/development works in the operational area of the Local Area Plan

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Development Applications Unit,
Department of the Environment, Heritage and Local Government,
Newtown Road,
Wexford*



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Where a proposed development (excluding individual residential home units) includes a monument or site included in the Record Monument and Places within the landholding we recommend that:

The developer shall commission an archaeological assessment (see below) to establish the extent of archaeological material associated with the monument or site. This assessment shall also define the buffer area or area contiguous with the monument which will preserve the setting and visual amenity of the site.

The area of the monument and buffer should not be included as part of the open space requirement demanded of a specific development but should be additional to the required open spaces.

Should a monument or place included in the Record of Monument and Places lie within the open space requirement for a development, a conservation plan for that monument should be requested as part of the landscape plan for that proposed open space.

Should a monument or site included in the Record of Monument and Places be incorporated into a development the monument and attendant buffer area should be ceded to Local Authority Ownership once the development and associated landscaping works are complete so that the future protection of the monument can be assured.

Archaeological monuments within areas zoned for future development

There are a number of Recorded Monuments within the operational area of the plan. The location of these archaeological features should be clearly indicated in the Local Area Plan.

When making provision for the zoning of lands, due regard should be given to the specific objectives relating to Recorded Monuments and any other archaeological features as outlined above.

The Council should be aware of the stated policy of the Department of Environment, Heritage & Local Government with regard to the preservation in-situ of archaeological remains:

“There should always be a presumption in favour of avoiding developmental impacts on the archaeological heritage. Preservation in-situ must always be the first option to be considered rather than preservation by record in order to allow development to proceed, and preservation in-situ must also be presumed to be the preferred option.” (Framework and Principles for the Protection of the Archaeological Heritage, Dúchas The Heritage Service, 1999).

Archaeological Assessment

It is the policy of the Department of the Environment, Heritage and Local Government that proposed developments that may (due to their location, size, or nature) have implications for the archaeological heritage should be subject to archaeological assessment. Such developments include:

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Those developments located at or close to an archaeological monument or site, those that are extensive in terms of area (1/2 hectare or more) or length (1 kilometre or more) and developments that require an Environmental Impact Statement.

The archaeological heritage includes National Monuments in the care of the State, archaeological and architectural monuments and sites in the Record of Monuments and Places and the Register of Historic Monuments, zones of archaeological potential in Historic Towns; the underwater archaeological heritage, including Historic Wrecks; unknown and unrecorded archaeological sites (including subsurface elements with no visible surface remains); potential sites located in the vicinity of large complexes of site or monuments, present or former wetlands, unenclosed land, rivers or lakes, or the inter-tidal zone.

Architectural Heritage:

Strategic Environmental Assessment (SEA) is intended to bring about improved decision making and have a positive effect when plans and programmes are being developed. This development, and associated decision-making, continues until a plan or programme is formally adopted. This would include variations to a development plan.

'Architectural heritage' is a material asset which is to be taken into account in SEA. This appears to have been overlooked in the Draft Strategic Environmental Assessment Scoping Report in that it is only 'protected structures' which are taken account.

The Architectural Heritage (National Inventory) and Historic Monuments (Miscellaneous Provisions) Act, 1999 defines the term "architectural heritage" as being -

"all

- (a) structures and buildings together with their settings and attendant grounds, fixtures and fittings,
- (b) groups of such structures and buildings, and
- (c) sites,

which are of architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest".

Section 51 of the 2000 Planning and Development Act states in part that -

"For the purpose of protecting structures, or parts of structures, which form part of the architectural heritage and which are of special ... interest ...".

This means that any structure included in the Record of Protected Structures is, in the first instance, "part of the architectural heritage". As such, the Record of Protected Structures is a subset of the architectural heritage of a particular locality.

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It is stated in Section 4.2.8, Cultural Heritage, including Architectural and Archaeological Heritage, of the Draft Strategic Environmental Assessment Scoping Report that -
"A number of protected structures are located within or close to Ringaskiddy Area as presented in Table 4.2 below. Of particular prominence is the Martello Tower (RPS No. 575) located on the high ground at the eastern end of the area. The Martello Tower is a 18th Century defensive structure which commands a fine view of the estuary."

Simply taking account significant effect on 'protected structures' rather than 'architectural heritage' in strategic environmental assessment may leave the outcome of the process open to challenge.

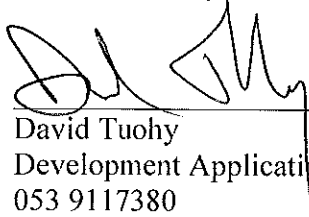
It is considered that the proposed variation to the Cork County Development Plan could have a significant effect on the architectural heritage of the locality involved. It is therefore recommended that significant effect on architectural heritage is taken into account in the SEA process.

Kindly forward any further information to the following address:

The Manager,
Development Applications Unit,
Department of the Environment, Heritage and Local Government,
Newtown Road,
Wexford.

In addition, please acknowledge receipt of this submission and forward the relevant receipt to the above address.

Is mise le meas,



David Tuohy
Development Applications Unit
053 9117380
David.tuohy@environ.ie

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The Manager,
Development Applications Unit,
Department of the Environment, Heritage and Local Government,
Newtown Road,
Wexford



Gomhshaol, Oidhreacht agus Rialtas Áitiúil
Environment, Heritage and Local Government



1st September 2010

WYG Ireland,
Unit 2,
University Technology Centre,
Curraheen Road,
Bishopstown,
Cork.

Our Ref: G2010/437

Re: Ringaskiddy wind energy proposed Variation to Cork County Development Plan.

A chara,

I refer to your scoping request of 4 August 2010 in relation to the above proposed variation. Further to my letter of 30th August outlining archaeological and architectural heritage observations please find below the recommendations of the Department of the Environment, Heritage and Local Government relating to nature conservation.

For the avoidance of doubt, the amended wording to both INF 7-4 and Table 3.3 (of the SEA Scoping Report) should have the clause added as follows (in italics): "... will be considered on their merits *and subject to compliance with Article 6 of the EU Habitats Directive.*"

In the absence of this amended wording, it is recommended that the variation be not adopted until detailed data becomes available allowing a conclusion of no adverse effects of wind turbine development within the area outlined on Cork Harbour Special Protection Area (SPA).

Is mise le meas,

David Tuohy
Development Applications Unit
053 9117380
David.tuohy@environ.ie

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Planning Policy Unit
Cork County Council
County Hall
Cork

31st August 2010

Our Ref: SCP100801.1

Re: Scoping Request for the Strategic Environmental Assessment in respect of a Proposed Variation (Wind Energy Policy INF 7-4) to the Cork County Development Plan, 2009

Dear Sir/Madam,

I refer to and acknowledge a correspondence from your SEA Consultants, Mr. Mark Masterson of White Young Green Environmental & Planning (Ireland) Ltd, dated 04/08/10, in relation to the Strategic Environmental Assessment Scoping notification for the proposed Variation to the Cork County Development Plan. Please find attached the EPA's initial submission in the form of an SEA Pack and SEA Scoping Guidance Document to assist you in undertaking an environmental assessment under the Planning and Development (Strategic Environmental Assessment) Regulations 2004 (S.I. No. 436 of 2004).

This Pack has been compiled by the EPA and is based on our experience to date as a statutory SEA Environmental Authority and on current best practice in the SEA process. While the SEA Pack is issued as part of statutory SEA Scoping consultation, it is a matter for the Plan/Programme-making authority and its SEA Team to ensure that the contents of the Pack are taken into account and followed as appropriate during the SEA process.

You are referred to the EPA's web based Environmental Mapping / Geographical Information System (GIS) ENVision, which can be found at:

<http://maps.epa.ie/InternetMapView/MapView.aspx>

In undertaking the SEA, all the environmental data and information presented on these GIS based maps should be taken into account. There will also be significant elements of this data, as well as relevant additional information, associated with the GIS for each of the individual River Basin Districts (RBDs). You are referred to the full range of Protected Areas within each of the RBDs as set out in Annex IV 1(i) – (v) inclusive of the Water Framework Directive.

The use, and application, of GIS should be considered where possible at the various key stages in the SEA process. GIS could, along with other methodologies, and depending on the availability of relevant spatial data, assist in determining the cumulative vulnerability of various environmental resources within the area of the Plan and as well as demonstrate how these resources might be impacted by the Plan.

Specific Comments on the Proposed Variation

The following should be taken into consideration within the SEA and Plan making process:

- Consideration should be given to the merits of reviewing a specific spatial aspect of the Wind Energy Strategy *Strategic Search Areas* in the absence of revisiting the overall wind energy strategy for the County. Consideration should thus be given to undertaking an environmental assessment of the Cork County Wind Energy Strategy, as a follow on from the Cork County Development Plan review. As part of this review the scope of the SEA should then assess the feasibility on environmental grounds of the subject lands of the proposed review.

In this context you are referred to the undertaking of SEA and Appropriate Assessment (AA) for a number of specific Wind Energy Strategies including more recently the Clare Wind Energy Strategy. This Strategy was subsequently included within the Clare County Development Plan review. Further consideration should be given to the merits of preparing a Regional Renewable Energy Strategy for the South Western Region in association with Kerry County Council and the Regional Planning Authority.

The implications of the proposed variation on the Carrigaline Local Area Plan which covers the subject lands should also be considered. The requirement and potential for the LAP, SEA and associated AA to assess the proposed variation should also be considered.

The SEA and AA should assess the full range of environmental effects as set out in the SEA Directive and Habitats Directive. In particular potential cumulative and in – combination effects in association with other relevant Plans, Programmes and projects should be assessed. The assessment should ensure likely significant effects associated with construction, operation, maintenance and decommissioning are fully assessed. The impacts associated with related infrastructure such as construction roadways, site investigations, power lines etc. should also be assessed.

The SEA and AA should consider reasonable and realistic spatial, density, intensity and technological alternatives in the context of the provisions for renewable energy in the Carrigaline area (e.g. Solar, Wind, Geothermal etc) and suitable combinations of the above.

You are referred to the National Wind Energy Strategy Guidelines which should be incorporated and implemented as appropriate into the proposed Variation. It should be ensured that wind energy development proposals are subject to an Environmental Impact Assessment, Appropriate Assessment including visual impact assessment.

- The proximity of the subject lands to and the potential impact on designated national and international nature conservation sites (Natura 2000 Sites, RAMSAR Site, Natural Heritage Areas)
- The requirement for an appropriate assessment in accordance with the Habitats Directive and the DoEHLG Appropriate Assessment Guidance for Planning Authorities
- The potential impact on protected species- birds, bats etc., including flight paths.



- Cork County Biodiversity Action Plan and available completed Cork County Habitat mapping.
- Potential for impact on aircraft flight paths to and from Cork airport.
- Scenic Views / Designated Landscape character areas- Confirm the status and availability of a Landscape Character Assessment for Cork County. The inclusion, in particular, in the context of the proposed variation consideration of seascape and coastscape elements should be considered.
- The relevant environmental protection aspects of Cork Harbour Integrated Management Strategy.

As part of the SEA Scoping process, we would suggest that a Scoping Meeting / Workshop be held with key staff within Cork County Council (planning, roads, environment, heritage etc.). Your SEA consultants or key local authority personnel in your Plan-making team should chair the meeting. There would also be merits in having personnel from National Parks and Wildlife Service (NPWS) and Department of Communications, Energy and National Resources (DCENR) and any other key stakeholders in attendance, as appropriate, at this meeting.

You are referred to the requirement, where appropriate under the SEA Regulations, to give notice to the following:

- The Minister for the Environment, Heritage & Local Government where it appears to the Planning Authority that the proposed Plan might have significant effects in relation to architectural or archaeological heritage or to nature conservation, and
- The Minister for Communications, Energy and Natural Resource (formerly Communications, Marine and Natural Resource), where it appears to the Planning Authority that the proposed Plan might have significant effects on fisheries or the marine environment.

Further comment will be provided by the Agency upon receipt of the Draft Environmental Report and Plan and associated documents during the next statutory consultation phase of the SEA Process.

Should you have any queries or require further information in relation to the above please contact the undersigned.

Yours Sincerely,

Tadhg O'Mahony
Senior Scientific Officer
SEA Section - Environmental Research Centre
Office of Environmental Assessment
Environmental Protection Agency
Regional Inspectorate
Inniscarra, County Cork
email: t.omahony@epa.ie

EPA SEA SCOPING SUBMISSION {name} DEVELOPMENT PLAN

SEA Process Guidance

EPA SEA Pack

The EPA 's SEA Pack has been issued as a separate file electronically. This Pack has been compiled by the EPA and is based on our experience to date as a statutory SEA Environmental Authority and on current best practice in the SEA process. The SEA Pack is issued as part of statutory SEA Scoping consultation in relation to the Development Plan, it is a matter for the relevant Local Authorities (the LA) to ensure that the contents of the Pack are taken into account and followed as appropriate during the SEA process.

Up-to-date Environmental Monitoring Data etc.

The current state of the environment should be described using most recent and up-to-date environmental data, information and reports. Where updating of significant environmental data and associated reports become available during the SEA process, where possible, this information should be incorporated into the description of the current state of the environment and where relevant related environmental problems. In addition the current state of drinking water quality and treatment, along with waste water effluent quality and treatment infrastructure, should be described using the most recent and up-to-date data, information and reports.

You are referred in this regard to the full range of Water and Air Quality Reports prepared by the EPA.

(See www.epa.ie <https://www.epa.ie/downloads/pubs/>).

Geographical Information Systems

You are referred to the EPA's web based Environmental Mapping / Geographical Information System (GIS) ENVision, which can be found at:

<http://maps.epa.ie/InternetMapView/MapView.aspx>

The use, and application, of GIS should be considered where possible at the various key stages in the SEA process. GIS could, along with other methodologies, and depending on the availability of relevant spatial data, assist in determining the cumulative vulnerability of various environmental resources within the Plan area. GIS could also demonstrate visually how the Plan might impact on these resources. In undertaking the SEA, all the environmental data and information presented on these GIS based maps should be taken into account.

You are referred to the EPA GISEA Manual, which has recently updated and posted as a Consultation Document on the EPA's SEA WebPage. This document can be downloaded via the following link:

<http://www.epa.ie/downloads/consultation/name.25835.en.html>

Appropriate Assessment

You are referred to the requirements of Article 6 of *Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora*, the Habitats Directive. Appropriate Assessment, in accordance with the Directive, is required for:

“Any plan or project not directly connected with or necessary to the management of the site (Natura 2000 sites) but likely to have significant effect thereon, either individually or in combination with other plans or projects, shall be subject to Appropriate Assessment of its implications for the site in view of the sites conservation Objectives...”

The LA should consult with the National Parks and Wildlife Service (NPWS) with regard to screening of the Plan for Appropriate Assessment. Where Appropriate Assessment is required, any findings or recommendations should be incorporated into the SEA Environmental Report and Plan, as appropriate.

In order to determine the requirement for an Appropriate Assessment the following Guidance is referenced.

European Commission, 2000. Managing Natura 2000 Sites – The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC

http://ec.europa.eu/environment/nature/natura2000/management/docs/art6/provision_of_art6_en.pdf

European Commission, 2002. Assessment of plans and projects significantly affecting Natura 2000 sites - Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC

http://ec.europa.eu/environment/nature/natura2000/management/docs/art6/natura_2000_asses_s_en.pdf

National Parks and Wildlife Service, 2009. Appropriate Assessment of Plans and Projects in Ireland

<http://www.npws.ie/en/media/NPWS/Publications/CodesofPractice/AA%20Guidance.pdf>

National Parks and Wildlife Service, Natura 2000 Screening Protocol – Water Service Plans and Projects

<http://www.npws.ie/en/>

Scoping Meetings/Workshops

As part of the SEA Scoping process, we would suggest that the convening of a Scoping Meeting / Workshop with key staff within the LA (planning, roads, environment, heritage etc.) be considered. There would also be merits in having personnel from National Parks and Wildlife Service (NPWS), Department of Communications, Energy and National Resources (DCENR), and Environmental Protection Agency, as appropriate, at this meeting.

For any environmental issue(s) determined to be scoped out of the SEA process, clear justification should be included in the Environmental Report as to why the specific environmental issues were not considered likely to be potentially affected by the Plan.

Alternatives

In considering and assessing alternatives, the alternatives proposed should be reasonable and realistic and should be set at the appropriate strategic level at which the Plan will be implemented operating within the national planning hierarchy. They should be assessed against the relevant environmental objectives established for the key environmental aspects of the environment likely to be significantly affected. Clear justification should be provided for the selection of the preferred alternative/ combination of alternatives.

Where relevant, the development of alternatives should be clearly described. In addition, the methodology applied in the assessment of alternatives along with any assumptions made should be described.

Consultation

In order to promote Best Practice in SEA in the context of consultation, it is recommended that the public be given an opportunity to make submissions on the issues to be addressed in the SEA process for the Plan. To this effect consideration should be given to the publication

of relevant and appropriate notices etc. to inform and engage the wider public in the SEA process.

Following completion of the Draft Scoping Report consideration should be given to the making available of this document on the LA website or other relevant websites.

Assessment of Likely Significant Effects

In assessing the likely significant effects of the Plan on the full range of environmental issues likely to be significantly affected, the full range of effects as set out in Annex I of the SEA Directive - likely significant effects should include- secondary, cumulative, synergistic, short, medium and long term, permanent, temporary, positive and negative effects, should be assessed and reported on.

Particular reference should be made to the potential for cumulative effects associated with the implementation of the Plan in association with other relevant Plans / Programmes and projects within the Plan area and adjoining areas.

The methodology applied in the assessment of the preferred alternative along with any assumptions made should be described. Where possible and practical, quantitative assessments should be undertaken of the assessment of the preferred alternative/ combination of alternatives.

Mitigation of Significant Effects

Where significant adverse effects are identified associated with the implementation of the Plan, there should be a clear link with relevant and appropriate mitigation measure(s). The emphasis should, in the first instance, be on avoidance of significant adverse effects.

Monitoring Proposals

Monitoring arrangements should be clearly set out along with responsibilities, frequency of monitoring, analysis, and reporting on monitoring. Monitoring arrangements should be sufficiently flexible so as to be able to react to unforeseen / unexpected events. Maximum use should be made of existing environmental monitoring programmes. To this effect, the significant environmental monitoring required under the Water Framework Directive should fulfill most if not all of the requirements with respect to water quality.

The monitoring arrangements and related monitoring programme for the Plan should include relevant and appropriate thresholds which should trigger when remedial action should be undertaken for the particular aspect of the environment being monitored.

Process and SEA-Environmental Report Compliance

The SEA Process for the Plan should comply fully with the procedural and output requirements set out in the SEA Directive, and the relevant national SEA Regulations. The Environmental Report should be prepared in accordance with the specific information specified in Article 5 - Environmental Report, Paragraphs 1 – 3 and Annex I of the SEA Directive.

Integration of SEA and Plan/Programme

Particular emphasis should be given during the SEA and Plan-making process to ensuring that both process are fully integrated from the outset. Appropriate SEA Team /Plan Team Workshops should be held at key stages during both processes to ensure full engagement, interaction, and sharing of information with key members of both teams and to ensure full integration of environmental considerations in the Plan.

Consideration could also be given to the assigning a facilitator either within or external to the LA with the specific role of ensuring full integration takes place during the SEA process and the Plan making process. This can be particularly beneficial where SEA is being undertaken by the LA.

Documentation of the SEA Process

Where key decisions are made during the SEA process e.g. Scoping In/Out environmental topics, selection of preferred alternative (s) etc. these decisions should be documented as part of an overall SEA/ Plan making process.

Possible Proposed Amendments to the Draft Plan

You are referred to the requirement for any amendments proposed to the Draft Plan, to be assessed for likely significant effects. This assessment should take account of the SEA Regulations Schedule 2A Criteria (S.I 436 of 2004) and should be subject to the same method of assessment as undertaken in the “environmental assessment” of the Draft Plan.

Information on the Decision/ SEA Statement

Following adoption of the Plan the competent authority is required to make available the adopted P/P and a statement setting out relevant “Information on the Decision” as set out in Article 9 of the SEA Directive.

You are referred to the requirement to prepare an SEA Statement outlining “Information on the Decision” as required by Article 14I of Planning and Development Regulations as amended by Article 8 of the SEA Regulations in relation to Development Plans.

This SEA Statement should summarise the following:

- how environmental considerations have been integrated into the Plan;
- how the Environmental Report, submissions, observations and consultations have been taken into account during the preparation of the Plan;
- the reasons for choosing the Plan adopted in the light of other reasonable alternatives dealt with; and,
- the measures decided upon to monitor the significant environmental effects of implementation of the Plan.

A copy of the SEA Statement with the above information should be sent to any environmental authority consulted during the SEA process.

While not a mandatory requirement consideration should be given at the Draft Plan stage to providing summary key information on: the key findings of the environmental assessment and how these findings have been integrated within the Plan.

SEA Guidance /Methodology

You are referred to the following Guidance/ Methodology, which should be referred to along with other relevant and appropriate SEA and related Guidance during the SEA process:

- EPA –Development of Strategic Environmental Assessment (SEA) Methodologies for Plans and Programmes in Ireland –Synthesis report (EPA, 2003)
<http://www.epa.ie/downloads/advice/ea/name.13547.en.html>
- The Department of Environment Heritage and Local Government Guidelines: “Implementation of SEA Directive 92001/42/EC): Assessment of the Effects of Certain Plans and Programmes on the Environment –Guidelines for Local Authorities and Planning Authorities” (DoEH&LG, November 2004) While the focus is on Land use Planning, this SEA guidance is of relevance.

<http://www.environ.ie/en/Publications/DevelopmentandHousing/Planning/FileDownload,1616,en.pdf>

In addition, to the above, it is brought to your attention that a Draft Consultation SEA Process Checklist has been published on the EPA website. The Checklist can be accessed at the following link:

<http://www.epa.ie/downloads/consultation/name,24012,en.html>

You are also referred to SEA Process Checklist in EPA –*Development of Strategic Environmental Assessment (SEA) Methodologies for Plans and Programmes in Ireland – Synthesis report* (EPA, 2003).

Environmental Authorities

You are referred to the requirement, where appropriate under the SEA Regulations, to give notice to the following:

- The Minister for the Environment, Heritage & Local Government where it appears to the Planning Authority that the Plan might have significant effects in relation to architectural or archaeological heritage or to nature conservation, and
- The Minister for Communications, Energy and Natural Resource (formerly Communications, Marine and Natural Resource), where it appears to the Planning Authority that the proposed Plan might have significant effects on fisheries or the marine environment.

INTEGRATION OF ENVIRONMENTAL CONSIDERATIONS IN THE LAND USE PLANS

The Plan should be set in the context of the planning hierarchy and a clear statement should be provided as to the function of the Plan and what the Plan can and cannot do. Where other Plans/Programmes/Strategies are responsible for implementing relevant policies / objectives / initiatives, these should be acknowledged and fully referenced in the Plan.

The comments below relate to the integration of the environmental considerations and recommendations that have been set out in the Environmental Report, as well as the additional information highlighted by the EPA, within the Plan. Suggestions are put forward for consideration with a view to addressing the integration of a number of key environmental considerations within the Plan.

The EPA is a statutory Environmental Authority under the SEA Regulations. The EPA's role in SEA in relation to Land Use Plans focuses on promoting full integration of the findings of the Environmental Assessment into the Plan. It is not the function of the EPA to either approve or enforce Land Use Plans.

1 WATER

1.1 Water Framework Directive

The Plan should promote the protection of surface water, groundwater coastal and estuarine water resources and their associated habitats and species, including fisheries.

Provisions should be made in the Plan for the incorporation of the specific relevant objectives and measures for individual water bodies set out in the relevant River Basin Management Plan (RBMP) and associated Programme of Measures (POM). The Plan should not hinder, and where possible promote the achievement of these specific objective at water body level. In addition the plan should outline the current water quality status and the status to be achieved by 2015 in any receiving waters covered by the plan.

You are in particular referred to the Water Maps GIS Tool within this weblink:

<http://www.wfdireland.ie/maps.html>

You are also referred to the full range of Protected Areas within each of the River Basin Districts (RBDs) as set out in Annex IV 1(i) – (v) inclusive of the Water Framework Directive. These should be taken into account in the Drafting of the Plan.

The Plan should refer to and incorporate the recent Surface Water legislation '*Environmental Objectives (Surface Waters) Regulations 2009*' 2009 (S.I. No 272 of 2009), where relevant and appropriate. You are referred to the Legislation at:

<http://www.environ.ie/en/Environment/Water/WaterQuality/EnvironmentalObjectivesSurfaceWatersRegulations2009/>

The Plan should refer to the recent '*Water Quality in Ireland 2007 – 2008, Key Indicators of the Aquatic Environment*' (EPA, 2009) as appropriate and relevant. You are referred to the Report at: <http://www.epa.ie/downloads/pubs/water/waterqua/>

1.2 Drinking Water/Water Supply

The SEA and Plan making processes should address drinking water supply capacity, leakage and quality in the Plan area. Future predicted increases in population and demand should be

taken into consideration in the context of current drinking water supply and future requirements.

The Plan should implement the European Communities (Drinking Water)(No.2) Regulations 2007 and should implement and include, as appropriate, the relevant recommendations set out in *The Provision and Quality of Drinking Water in Ireland – A Report for the Years 2007-2008*, (Office of Environment Enforcement- EPA, 2009). You are referred to this Report at: <http://www.epa.ie/downloads/pubs/water/drinking/>

The Plan should refer to the EPA guidance handbook on the *Implementation of the Regulations for Water Services Authorities for Public Water Supplies* that has been prepared under the European Communities (Drinking Water) (No.2) Regulations 2007. This guidance is available at <http://www.epa.ie/downloads/pubs/water/drinking/>. It contains guidance for local authorities on the implementation of the Drinking Water Regulations, including statutory and binding guidance on certain issues as is required under the Regulations.

The Plan should include, where applicable, specific objectives for the improvement of any water supplies in the Plan area, in particular the Plan should address the specific objectives to be achieved where these water supplies are included on the EPA's Remedial Action List. This list can be found at: <http://www.epa.ie/downloads/data/water/>. Guidance has also been published by the EPA on the Remedial Action List and is available in the Drinking Water Handbook mentioned above at <http://www.epa.ie/downloads/pubs/water/drinking/>.

Two parallel handbooks were prepared, one to assist private water suppliers and WSAs to implement the Regulations in respect of private water supplies and the second handbook to cover public water supplies including the role of the EPA as the supervisory authority. The two handbooks together replace the previous handbook, published by the EPA in 2004. The handbooks also replace and incorporate the guidance booklets number 1 to 4 published by the EPA in the last two years. The drinking water guidance booklets that are replaced are as follows:

- Guidance Booklet No.1. Guidance for local authorities on Regulation 9 and Regulation 10 of EC (Drinking Water) (No.2) Regulations 2007.
- Guidance Booklet No.2. Annual reporting of drinking water monitoring results.
- Guidance Booklet No.3. Guidance for local authorities on the Remedial Action List for public water supplies.
- Guidance Booklet No.4. Risk Screening for Cryptosporidium.

The EPA has also published a series of Drinking Water Advice Notes, which cover the following areas:

- Advice Note No. 1: Lead Compliance Monitoring and Surveys
- Advice Note No. 2: Action programmes to restore the quality of drinking water impacted by lead pipes and lead plumbing
- Advice Note No. 3: E.coli in Drinking Water
- Advice Note No. 4: Disinfection By-Products in Drinking Water
- Advice Note No. 5: Turbidity in Drinking Water
- Advice Note No. 6: Restoring Public Water Supplies Affected by Flooding

These can be found at: <http://www.epa.ie/downloads/pubs/water/drinking/>

These Advice Notes set out EPA guidance on the actions that are necessary following exceedances of these parameters and also the preventative measures that should be taken to improve the security of the supply to prevent a repeat failure in the future. This is provided in the context of the EPA recommended approach to managing a drinking water supply i.e. the Water Safety Plan Approach. Please be aware that EPA Lead Guidance Circulars No.s 1 and EPA SEA Submission

2 have been reissued as Advice Notes No.s 1 and 2 though there has been no change to the text of these documents.

As set out in the recommendations referred to above, the Local Authority must develop appropriate solutions that may involve abandoning or replacing drinking water sources, upgrading the treatment facilities or improving management and operational practices.

The Plan should take account of any Groundwater Protection Schemes and Groundwater Source Protection Zones data available at the Geological Survey of Ireland: <http://www.gsi.ie>

1.3 Waste Water Treatment

The Plan should highlight the requirement under *The Waste Water Discharge (Authorisation) Regulations* for all for all wastewater discharges, including storm water discharges which come within the scope of these Regulations to be licensed. In this regard, the Plan should highlight the specific requirements of Regulations 43 & 44 of the *Waste Water Discharge (Authorisation) Regulations, 2007*, S.I. No. 684 of 2007, regarding the consideration of proposals and consultation on such proposals by Planning Authorities and An Bord Pleanála, where applications for proposed development are being considered and decided upon.

The Plan should implement the Urban Waste Water Treatment Regulations 2001 and 2004 and promote, as appropriate, specific provisions for the implementation of the relevant recommendations set out in *Urban Waste Water Discharges in Ireland for Population Equivalents Greater than 500 Persons – A Report for the Years 2006 and 2007* (EPA, 2009). You are referred to this Report at: <http://www.epa.ie/downloads/pubs/water/wastewater/>

The EPA has published a *Code of Practice: Wastewater Treatment and Disposal Systems Serving Single Houses (p.e ≤ 10)*, (EPA, 2009). The code of practice (CoP) establishes an overall framework of best practice in relation to the development of wastewater treatment and disposal systems, in unsewered rural areas, for protection of our environment and specifically water quality. The code replaces previous guidance issued by the EPA on wastewater treatment systems for single houses (EPA, 2000) and incorporates the requirements of new European guidelines, recent research findings and submissions and comments received during the consultation process. It is available from the link provided above.

The Plan should, where possible and appropriate, include/ and /or promote the inclusion of specific Policies and Objectives regarding the provision and maintenance of adequate and appropriate wastewater treatment infrastructure to service zoned lands and developments within the Plan area.

Where the introduction of additional lands for development is being proposed within the Plan area, relevant Policies/objectives should be included in the Plan, and as appropriate, to promote assessment of the adequacy of the existing wastewater treatment facility (ies) in terms of both capacity and performance and the potential risk to human health and water quality. Where relevant, the potential impact on habitats and species of ecological importance should be addressed.

The Plan should include as appropriate measures to ensure that trade effluent in the area covered by the Plan is managed properly and discharged to sewer in accordance with relevant discharge licences where appropriate.

1.4 Groundwater Protection

The Plan should include clear Policy and Objective for the protection of groundwater resources and associated habitats and species. The Plan should make reference to the requirements of the Groundwater Directive (2006/118/EC) on the protection of groundwater against pollution and deterioration, which came into force on the 12th December 2006.

EPA SEA Submission

This Directive addresses the main elements of groundwater protection as required by Article 17 of the WFD. It establishes underground water quality standards and introduces measures to prevent or limit inputs of pollutants into groundwater. You are referred to the following recent legislation *European Communities Environmental Objectives (Groundwater) Regulations 2010* (S.I.9 of 2010) at:

<http://www.environ.ie/en/Environment/Water/WaterQuality/GroundwaterRegulations2010/>

Where not already available, the Plan should promote the development of a Groundwater Protection Scheme for the relevant local authority areas covered by the Plan.

Consideration should also be given, where relevant and appropriate, to promotion of the inclusion of Policies and Objectives in the Plan for the following:

- *Enforcement of Planning Conditions related to installation, operation and maintenance of on-site wastewater treatment / septic tank systems.*
- *Connection of all remaining houses within Town Boundary to the Wastewater Treatment Plant.*
- *The development of a wastewater leak detection programme. The use of a strategic metering system to aid in leak detection should be considered*
- *The implementation and enforcement of the European Communities (Good Agricultural Practice for Protection of Waters) Regulations 2009.*

1.5 Bathing Water

The most recent report on bathing water quality ‘*The Quality of Bathing Water in Ireland – A Report for the Year 2009, (EPA, 2010)*’ sets out the status of Irish Seawater and Freshwater Bathing areas. You are referred to this report at:

<http://www.epa.ie/downloads/pubs/water/bathing/>

“*The purpose of the Bathing Water Regulations is the protection of human health*”, and the relevant local authorities, where appropriate, “*should ensure that where any bathing water fails the mandatory bathing standards that the public are made ware of this fact by means of information notices posted at the bathing area.*” To this effect the Plan should include as appropriate a Policy/ Objective to ensure this requirement is complied with.

You are also referred to the new “*Directive on bathing water (Directive 2006/7/EC)*” which came into force on 24 March 2006 and which will repeal the existing 1976 Directive with effect from 31 December 2014. The new Directive is implemented in Ireland by the new *Bathing Water Quality Regulations 2008 (S.I. No. 79) of 2008.*

The Plan should promote the protection of waters within the Plan area that are used for bathing.

1.6 Water Conservation

The Plan should include measures to promote conservation of water. In this context, the development of a Water Conservation Strategy should be considered, and where relevant addressed in combination with adjoining local authorities. The Strategy should address new and existing developments within the Plan area. Where such a Strategy is being developed, specific timescales should be assigned to its preparation with clear responsibilities and timescales for its implementation.

1.7 Water Services Act 2007- Strategic Water Services Plans

The Plan should include provisions to promote the preparation and implementation of Water Services Plans in accordance with any Regulations likely to be made under Section 36 of the Water Services Act 2007.

Section 36 Subsection (7) c. of the Water Services Act 2007 makes specific reference to the inclusion in Water Services Strategic Plans, where considered reasonable and necessary, of objectives to:

- “protect human health and the environment”;
- “facilitate the provision of sufficient water services for domestic and non – domestic requirements in the area to which the plan relates”; and,
- “support proper planning and sustainable development including sustainable use of water resources”.

1.8 Flood Prevention and Management

The Plan should promote the appropriate zoning of lands and restriction of use in areas liable to flooding to avoid increased risk of flooding of the lands either within or adjoining the zoned areas. A specific Policy should be included to provide for/promote appropriate flood risk assessments to be undertaken, where development(s) and zoning are being proposed in the Plan area where there is risk of flooding.

The Plan should make reference to the E.U Directive (2007/60/EC) on the assessment and management of flood risks entered into force on 12 December 2007. The provisions of this Directive include the development of flood risk management plans.

The Flood Risk Management approach as adopted by the Office of Public Works (OPW) should be promoted, as appropriate, in consultation with the OPW where there is potential risk of flooding in the Plan area. You are referred to the Planning Guidelines on flooding in “*The Planning System and Flood Risk Management - Guidelines for Planning Authorities (Environment, Heritage and Local Government – OPW, November 2009* which can be consulted at:

<http://www.environ.ie/en/Publications/DevelopmentandHousing/Planning/NationalSpatialStrategy/Flood%20Risk%20Management/>

The Plan should promote the development, where appropriate, of adaptation measures to account for the likely increased risk of flooding due to Climate Change within the Plan area.

The Plan should include measures to promote the implementation of adequate and appropriate Sustainable Urban Drainage Systems.

The Plan should provide for protection, management, and as appropriate, enhancement of existing wetland habitats where flood protection/management measures are necessary. See definition of “Wetlands” in - *Wetlands Conservation and Protection in EPA Code of Practice: Environmental Risk Assessment for Waste Sites (EPA, 2007)*. The full report is available at:

http://www.epa.ie/downloads/pubs/other/corporate/oeecop_waste_sites_consultation_draft.pdf

1.9 Integration of infrastructure, zoning and development

Where zoning/rezoning of lands and the introduction of new development is being proposed within the Plan area, the Plan should ensure the adequacy of the existing water

supply/wastewater treatment facilities and associated networks are assessed. This should address both capacity and performance and the potential risk to human health, water quality and water quantity. The potential impact on habitats and species of ecological importance should also be addressed as appropriate, from pressures impacting on water quality and quantity.

Zoning for development within the Plan area should be linked to availability and adequacy of water supply/waste water treatment infrastructure and capacity. The provision of adequate and appropriate infrastructure in advance of development within the Plan area should be promoted through the Plan.

The implications of Flood Risk likely to be associated with already zoned and undeveloped lands in the Plan area should also be considered. This should be considered in the context of possible rezoning options as appropriate.

The above requirements should be promoted in the Plan and as appropriate should be reflected in relevant Policies/Objectives associated with relevant Land Use and other relevant Plans within the Plan area.

2 BIODIVERSITY

2.1 EU Protected Habitats and Species in Ireland

The Plan should include a clear Policy to protect all designated habitats and species within the area. Refer to the Water Framework Directive Register of Protected Areas in particular those relating to biodiversity.

The Plan should include Policies/Objectives to ensure that the local authority, in fulfilling its responsibilities in the supply of services, zoning of lands and authorisation of development, addresses the threatened habitats and species identified in the National Parks and Wildlife Service Report “*The Status of EU Protected Habitats and Species in Ireland*”, (NPWS, Department of the Environment, Heritage and Local Government, 2008) which occur within or adjoining the LA areas.

<http://www.npws.ie/en/media/Media.6440.en.pdf>

The Plan should refer to the requirement of the Habitats Directive (Article 4 Paragraph 4) for the maintenance of special areas of conservation at a “favourable conservation status”. In particular the Plan should include a specific Policy / Objective promoting the maintenance and as appropriate achievement of favourable conservation status of habitats and species, in association with the NPWS.

The Plan should include any sites listed on the Water Framework Directive Register of Protected Areas in particular those relating to biodiversity, occurring in the Plan area.

National Biodiversity Data Centre (NBDC)

The National Biodiversity Data Centre has recently launched a new website. <http://www.biodiversityireland.ie/>. This website is to be used as a national resource, presenting data and information on all aspects of biodiversity. It also serves as a link between the NBDC knowledgebase and the provision of high quality information to improve decision making. Key features of the website include:

- Easy access to over 1 million observations of Ireland’s Wildlife
- Provisional distribution maps of 8545 Irish species presented on national Biodiversity Maps available here: <http://maps.biodiversityireland.ie/>

- A latest news feature to highlight any new developments in wildlife recording and surveying in Ireland

Annex I/ Annex II /Annex IV Habitats Directive

The Plan should also refer to the protection of Annex I and Annex II - Natural Habitats Animal and Plant Species respectively of Community Interest whose conservation requires the designation of Special Areas of Conservation and Annex IV –Animal and Plant Species of Community Interest in need of Strict Protection of “Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora” which occur within and adjoining the Plan area.

Management Plans for Designated Areas

The availability and status of Management Plans for the Natura 2000/ European sites within the Plan area, required in accordance with the Habitats Directive, should be determined. Where available, the Plan should include a specific Policy/Objective in local authority land use Plans to take into account the objectives and management practices proposed in the available Management Plans.

Fisheries

The Plan should promote the protection of fisheries and shellfisheries where relevant and appropriate within the Plan area and adjoining LA areas.

The Plan should promote the guidance from the Regional Fishery Boards, including where appropriate and relevant:

- *Fishery Guidelines for Local Authority Works* (DCENR, 2008) where relevant and appropriate. The purpose of these guidelines is to outline the fisheries concerns and to advise on the precautions to be taken for the protection of inland fisheries. They are intended for use by Local Authority Engineers & Planners, their Consultants and Contractors. You are referred to these Guidelines at: <http://www.nrfb.ie/environment/las.htm>
- *Guidelines on the Planning, Design, Construction & Operation of Small-Scale Hydro-Electric Schemes and Fisheries* (DCENR, 2007). This paper draws on available information on the potential impact of small-scale hydro-electric schemes on the fisheries resource and recommends guidelines for the protection of the fisheries interest which should be followed. You are referred to this guidance at: <http://www.cfb.ie/publications/hydro.htm>
- Eastern Regional Fisheries Board Guidance Notes ‘*Requirements for the Protection of Fisheries Habitat during Construction and Development Works at River Sites*’ (Eastern Regional Fisheries Board, 2006). These Guidance Notes are aimed to identify the likely impact on fisheries habitat in the course of construction and development work, and to outline practical measures for the avoidance and mitigation of damage. You are referred to this Report at: <http://www.fishingireland.net/environment/constructionanddevelopment.htm>
- *Maintenance and Protection of the Inland Fisheries Resource during Road Construction and Improvement Works - Requirements of the Southern Regional Fisheries Board* (Southern Regional Fisheries Board, 2007). You are referred to this guidance note at: <http://www.srfb.ie/about/roads.html>

Buffer Zones

The Plan should promote the provision/application of appropriate buffer zones between designated ecological sites and areas zoned for development. Where the application of buffer zones is being considered, you should consult with the National Parks and Wildlife Service (NPWS) of the Department of Environment, Heritage & Local Government (DOEH&LG) with regard to their application and implementation. The relevant Regional Fisheries Board should also be liaised with where fisheries protection is a concern / objective.

Appropriate Assessment

The Plan should include a clear Policy/Objective that sets out a requirement for Appropriate Assessment Screening for new/reviewed/amended Plans or proposed projects, being prepared by the local authority for the Plan area that may have the potential to impact on Natura 2000 sites. Consideration should be given to carrying out an Appropriate Assessment to consider the likely significant effects.

A determination for the requirement for an Appropriate Assessment of all Land Use Plans and related variations should be made in consultation with the Department of Environment, Heritage and Local Government - National Parks and Wildlife Service, and this should be highlighted in the Plan.

The Plan should promote the application of the Guidance set out in the recent DoEHLG Publication ‘*Appropriate Assessment of Plans and Projects in Ireland- Guidance for Planning Authorities* (2009)’.

<http://www.npws.ie/en/media/NPWS/Publications/CodesofPractice/AA%20Guidance.pdf>

The Plan, should promote the setting up of procedures to ensure compliance with the requirement of Article 6 of the Habitats Directive.

2.2 Non-Designated Habitats and Species

The Plan should promote the protection non-designated habitats, species and local biodiversity features including rivers, wetlands, hedgerows, individual trees, streams, grassland, *coastal areas* etc.

The provision of appropriate buffer zones between local biodiversity features and areas zoned for development should be considered. The Plan should provide for the promotion of protection of linkages between local biodiversity features and ecological networks e.g. hedgerows, watercourses etc. Opportunities for enhancement of local biodiversity features should be promoted where appropriate.

The Plan should support / acknowledge existing Local Heritage / Biodiversity Plans and should promote the implementation of key actions set out in these Plans. Where not already prepared and adopted through County Development Plans, the Plan should promote the preparation of County and where relevant and appropriate Local Heritage/ Biodiversity Plans.

2.3 Habitat Mapping

The Plan should promote the inclusion of a Policy/Objective, as appropriate, for phased and co-ordinated Habitat Mapping (including wetlands) within the Plan area.

This Habitat Mapping should be undertaken at an appropriate scale and in accordance with agreed national Habitat Mapping Methodology. This mapping should be undertaken on a phased basis and should have specific timescales assigned.

The scope of this mapping should be agreed in consultation with the National Parks and Wildlife Service – Department of the Environment, Heritage and Local Government, the

Heritage Council, the relevant Regional Fisheries Board and other relevant statutory and non statutory nature conservation interest groups.

2.4 Alien species and Noxious Weeds

The Plan should promote the implementation of measures to control and manage alien/invasive species (e.g. Japanese knotweed, Giant Hogweed, Zebra Mussel etc.) and noxious weeds (e.g. Ragwort, thistle, dock etc.) within the Plan area.

Invasive Species Action Plans are available for a number of species on the Invasive Species Ireland website. Information on invasive species can be found at:

<http://www.invasivespeciesireland.com/>

The National Roads Authority has produced a report entitled the “Management of Noxious Weeds and Non-Native Invasive Plant Species on National Roads” which can be found at: <http://www.nra.ie/Publications/DownloadableDocumentation/Environment/file,16172,en.pdf>

In addition, the National Biodiversity Data Centre (referenced in Section 2.2) contains online maps and information showing the distribution of invasive species on a national level which should be consulted where relevant.

The measures set out in these documents should be applied at a Plan level where appropriate and could control further spread of these species at regional, county and local level.

2.5 Inland waters – rivers, streams, wetlands

A relevant policy should be included to enhance biodiversity richness by protecting rivers and stream corridors and valleys by reserving riparian zones / ecological corridors, maintaining them free from inappropriate development, and discouraging culverting or realignment.

3 AIR, NOISE AND CLIMATIC FACTORS

3.1 Noise

The Plan should include reference to and, as appropriate, promote the implementation of Noise Directive and associated national regulations as well as the specific “measures”/ “actions” set out in or due to be set out in a proposed “ Noise Action Plans” for the relevant local authority area within the Plan area.

3.2 Air & Climatic Factors

Consideration should be given to promoting specific Policies / Objectives in the Plan for the protection and improvement, as appropriate, of air quality within the Plan area, particularly in areas zoned for increased urban and transport related development.

The Plan should promote specific Policies/Objectives and associated provisions for the development and promotion of appropriate climate change adaptation and mitigation measures that can be implemented through relevant land use plans and/or specific plans e.g. Flood Risk Management Plans, Integrated Coastal Zone Management Plans etc.

The Plan should also promote the inclusion of specific Policies within local authority land use plans, which promote the integration of the implications of Climate Change at a regional and local level, in land use planning within the Plan area. In particular the Plan should refer to *Ireland’s National Climate Strategy 2007 – 2012*. This is available at: <http://www.environ.ie/en/Environment/Atmosphere/ClimateChange/>

The Plan should also address how climate change might impact on the implementation of land use plans in the Plan area. In this regard you are referred to the potential impact of climate

change on “increased risk of flooding” and possible “increased occurrence of drought conditions”

You are referred to *Air Quality in Ireland 2008– Key Indicators of Ambient Air Quality*, (EPA, 2009)’, which sets out the most recent status in each of the four air quality zones in Ireland. You are referred to this report at: <http://www.epa.ie/downloads/pubs/air/quality/>

The objectives of EU and Irish air quality legislation is “*to avoid, prevent or reduce harmful effects on human health and the environment as a whole*”, and the relevant local authorities, where appropriate, “*shall promote the preservation of best ambient air quality compatible with sustainable development.*” To this effect the Plan should include as appropriate a Policy/Objective to ensure this requirement is complied with.

Consideration should be given to promoting specific Policies / Objectives in the Plan for the protection and improvement, as appropriate, of air quality within the Plan area, particularly in areas zoned for increased urban and transport related development.

4 ENERGY CONSERVATION/RENEWABLE ENERGY

Consideration should be given to the inclusion in the Plan, as appropriate, of a Policy/Objective in relation to the preparation and implementation of “An Energy Conservation Strategy” and associated awareness campaign within the Plan area. Specific timescales should be assigned to the preparation of such a strategy.

The Plan should promote, where appropriate, the use of renewable energy systems (e.g. solar, wind, geothermal etc.) within the Plan area. The Plan should also provide for promotion of energy conservation measures in buildings. Relevant guidance can be found on the website of Sustainable Energy Ireland: www.sei.ie

5 LANDSCAPE CHARACTER ASSESSMENT

The Plan should promote the protection of designated scenic landscapes, scenic views, scenic routes and landscape features of regional, county and local value. Where not already available the Plan should promote the undertaking of Landscape Character Assessment in accordance with the relevant Guidance from the Department of the Environment, Heritage and Local Government and the Heritage Council.

The Plan should also take into account the landscape character adjoining the Plan area. There is a need to take into account landscape features and designations adjoining the Plan area.

Consideration should also be given to promoting the requirement for an appropriate “Visual Impact Assessment” for proposed development with potential to impact adversely on significant landscape features within the Plan area. The Plan should promote the application of standard impact assessment methodology for all such development.

Consideration should also be given to the promotion of the designation, and use of, agreed and appropriate viewing points for these assessments. The scope of each assessment should be agreed in consultation with the relevant Planning Department staff.

The Plan should promote the recognition of visual linkages between established landmarks and landscape features and views which should be taken into account when land is being zoned and when individual development proposals are being assessed / considered within the Plan area.

6 HUMAN HEALTH / QUALITY OF LIFE

The Plan should ensure provision of adequate and appropriate infrastructure and to serve both the existing community and likely future predicted increases in population within the Plan area.

In preparing the Plan, there would be merits in exploring current practice and opportunities with respect to promoting the protection and, as appropriate, improvement of “Quality of Life”. Where relevant, the application of existing “Quality of Life Indices” would be considered in consultation with relevant statutory and non-statutory bodies/organisations.

You are also referred the relevant aspects already referred to above under water, biodiversity, air, energy.

7 TRANSPORTATION

The Plan should promote and, as appropriate provide for, the provision of sustainable modes of transport. The *Department of Transport 2020 Vision – Sustainable Travel and Transport Public Consultation Document (February 2009)* should be reviewed in the context of possible initiatives which could be included as Objectives within the Plan.

8 TOURISM

The Plan should promote where relevant and appropriate long term, sustainable planning for tourism within the Plan area. There may be merits in considering the promotion of the preparation of Integrated Sustainable Regional Tourism Strategy for the region.

9 INFRASTRUCTURE PLANNING

The Plan should promote the integrated planning for adequate and appropriate infrastructure to service any development proposed and authorised during the lifetime of the individual land use plans within the Plan area.

In particular, the Plan should promote the provision of adequate and appropriate wastewater treatment, water supply, surface and storm water drainage, transport, waste management, community services and amenities etc. on planned and phased basis to address any current problems and/or deficits and to reflect predicted increases in population during the life of individual plans adopted within Plan area.

The Plan should promote the development of traffic management measures to reduce the potential for traffic congestion and associated vehicular emissions within the Plan area. In particular the preparation of Integrated Traffic Management Plans, where relevant and appropriate, for the *existing urban areas and proposed new urban developments should be* promoted as appropriate through the Plan. This approach should address the short, medium and long-term traffic management requirements within the Plan area.

10 URBAN WASTE WATER DISCHARGE LICENSING

The Plan should refer to the requirement under The Waste Water Discharge (Authorisation) Regulations (as described in *Section 1.3 Wastewater Treatment* above) for all for all wastewater discharges, including storm water discharges which come within the scope of these Regulations to be licensed. The EPA is currently in the process of licensing discharges from wastewater treatment facilities.

11 WASTE MANAGEMENT

The Plan should promote the integration of land use zoning and development to existing and planned availability of waste infrastructure and capacity. Priority should be given to provision of adequate and appropriate waste related infrastructure in advance of any development.

The Plan should seek to incorporate relevant guidance and legislation to address issues such as Waste Prevention, Food Wastes, Identification of Historic Landfill Sites, Backyard Burning, Illegal Dumping, Brown Field Development etc

The Plan should promote and incorporate the information, and any recommendations, in the following EPA reports:

- *The Nature and Extent of Unauthorised Waste Activity in Ireland (Sep 2005)* - This report sets out the findings of a nationwide investigation by the EPA's Office of Environmental Enforcement (OEE) on unauthorised waste activities in Ireland and sets out an Action Plan to deal with the issue. You are referred to the report at: <http://www.epa.ie/downloads/pubs/waste/unauthorisedwaste>
- *National Waste Report 2008* – you are referred to this Report at: <http://www.epa.ie/downloads/pubs/waste/stats/>
- *National Hazardous Waste Management Plan 2008 – 2012* – available at <http://www.epa.ie/downloads/pubs/waste/haz/>
- *Ireland's Environment 2008* – State of the Environment report - This fourth state of the environment report evaluates the state of the environment across a number of themes including, water quality, air quality and emissions, waste, chemicals, land and soil. You are referred to this report at: <http://www.epa.ie/downloads/pubs/other/indicators/irlenv/>.

12 ENVIRONMENTAL IMPACT ASSESSMENT (EIA)

The Plan should highlight that under the EIA and Planning and Development Regulations certain projects that may arise during the implementation of the Plan may require an Environmental Impact Assessment. There are also requirements with regard to EIA for sub-threshold development. In this regard, you are referred to the following Publications:

- “*Guidelines on Information to be contained in Environmental Impact Statements*” EPA, 2002.
- “*Advice Notes on Current Practice in the preparation of Environmental Impact Statements*”, EPA 2003.

In addition to the above, you are referred to the Department of the Environment, Heritage and Local Government's Publication:

- “*Environmental Impact Assessment (EIA) Guidance for consent Authorities regarding sub-threshold development*”, DoEH&LG, 2003.

These documents can be downloaded at: <http://www.epa.ie/downloads/advice/ea/guidelines/>

It should be noted that the Projects would also be required to be screened with respect to the requirement for Habitats Directive Assessment/Appropriate Assessment as required by Article 6 of the Habitats Directive.

You are also referred to the recently published DoEHLG guidance available in relation to Appropriate Assessment ‘*Appropriate Assessment of Plans and Projects in Ireland*’ (DoEHLG, 2009) at:

EPA SEA Submission

13 STRATEGIC ENVIRONMENTAL ASSESSMENT(SEA)

Consideration should be given to the inclusion of a specific Policy/Objective in the Plan to ensure full compliance, with the requirements of *Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment* – The SEA Directive and the associated *Planning and Development (Strategic Environmental Assessment) Regulations, 2004*.

The LA need to be cognisant of their responsibilities with respect to the SEA Directive and related SEA Regulations through the Plan. This is of relevance to County Development Plans, Town Plans, Local Area Plans including reviews, variations and amendments etc.

The Plan should promote the development and implementation of Procedures to ensure compliance with the requirements of the SEA Directive and related SEA Regulations for all Land Use Plans within the Plan area.

14 OBLIGATIONS WITH RESPECT TO NATIONAL PLANS AND POLICIES AND EU ENVIRONMENTAL LEGISLATION

The Plan should refer to the LA's responsibilities and obligations in accordance with all national and EU environmental legislation. It is a matter for the Local authorities to ensure that, when undertaking and fulfilling their statutory responsibilities, they are at all times compliant with the requirements of national and EU environmental legislation.

15 EPA REPORT: IRELAND'S ENVIRONMENT 2008 "MAIN ENVIRONMENTAL CHALLENGES"

The Plan should include relevant Policies and Objectives are included, to address, where appropriate, the "Main Environmental Challenges" for Ireland as set out in Chapter 16 – "Main Environmental Challenges" of EPA Ireland's Environment 2008 (EPA, October 2008). These are as follows:

Limiting and Adapting to Climate Change

1. Mitigating the causes and effects of climate change
2. Adapting to climate change impacts
3. Improving our understanding of climate change

Reversing Environmental Degradation

1. Preventing eutrophication and other water pollution
2. Protecting natural habitats and species populations
3. Remediation of contaminated land

Complying with Environmental Legislation and Agreements

1. Building of a culture of compliance
2. Enforcement of legislation at national and local levels
3. Meeting EU and other international obligations

Mainstreaming of Environmental Considerations

1. Incorporating environmental considerations into policies and plans
2. Ensuring environmentally responsible businesses
3. Changing behaviours

This Chapter can be downloaded at:
EPA SEA Submission

<http://www.epa.ie/downloads/pubs/other/indicators/irlenv/43366%20epa%20report%20chap%2016.pdf>

The LA in implementing the Plan and in fulfilling its responsibilities should ensure Plan – making authorities take into account and address, where appropriate, the relevant Environmental Challenges” set out above.



ENVIRONMENTAL PROTECTION AGENCY

STRATEGIC ENVIRONMENTAL ASSESSMENT

SEA PACK

CONTENTS

INTRODUCTION TO THE SEA PACK

1. SEA PROCESS GUIDANCE

2. SEA SCOPING CHECKLIST

3. SEA PROCESS CHECKLIST

4. DRINKING WATER RECOMMENDATIONS

5. URBAN WASTE WATER DISCHARGES RECOMMENDATIONS

6. WETLANDS CONSERVATION AND PROTECTION

7. APPROPRIATE ASSESSMENT OF LAND USE PLANS

INTRODUCTION TO THE SEA PACK

This SEA Pack has been compiled by the EPA based on our experience to date as a statutory SEA Environmental Authority and on current best practice in the SEA Process.

The Pack comprises a combination of Guidance, Checklists and Abstracts from EPA Publications and a Circular Letter issued by the Department of the Environment Heritage and Local Government on Appropriate Assessment of Land use Plans.

The Pack will be reviewed and updated on an ongoing basis. The most recent version of the SEA pack will be available on the EPA'S Website www.epa.ie from May 2008. Due to the level of activity in the SEA of Land Use Plans, the Pack has been informed primarily, though not exclusively, by SEA practice in this sector. It is, however, intended that the information and guidance included will benefit SEA and Plan/Programme-making processes for each of the sectors covered by the SEA Directive and associated national SEA Regulations.

It should be noted, that while the SEA Pack refers to various publications, guidance and data sources; it is a matter for the Plan making authority and the SEA Team to ensure they consult the most recent relevant national regional and local environmental publications and databases.

Note, this SEA Pack is not a statutory document. The intention is for the information included in the Pack to guide both the Plan/Programme-making and SEA processes. In particular, it is intended that the Pack will promote integration of both Plan/Programme-making and SEA processes and compliance with the procedural and output requirements of the SEA Directive and associated Regulations. Furthermore, it is hoped that the Pack will ensure that the overall objectives of the SEA Directive and Regulations are achieved namely:

- the provision of a high level of protection of the environment; and,
- the integration of environmental considerations in the preparation and adoption of plans and programmes with a view to promoting sustainable development.

Where the SEA Pack is issued as part of statutory SEA Scoping consultation, it is a matter for the Plan/Programme-making authority and the SEA Team to ensure that the contents of the Pack are taken into account and followed as appropriate during the SEA process.

Any comments or suggestions users of this PACK may have regarding its contents are welcome and should be forwarded to c.omahony@epa.ie entitled **SEA PACK COMMENTS**.

1. SEA PROCESS GUIDANCE

This section provides a brief overview of the key stages in the SEA process. Reference is made to key sources of information, SEA procedures and guidance.

2. SEA SCOPING CHECKLIST

This section comprises a detailed Checklist of issues to be considered at the SEA Scoping stage. Possible tasks are identified and key sources of information are highlighted. The Checklist, when used during Scoping Meetings/Workshops can prove very useful in identifying available environmental information and information gaps, existing environmental problems

3. SEA PROCESS CHECKLIST

The SEA Process Checklist is a detailed stage-by-stage guide to the key SEA procedures, activities and associated outputs. This Checklist is intended to be used to document the SEA process with a view to ensuring compliance with the requirements of the SEA Directive and Regulations. A comprehensive list of relevant references, guidance contact information and websites is provided.

4. DRINKING WATER RECOMMENDATIONS

The recommendations set out in the EPA's most recent "Provision nad Quality of Drinking Water" Report are reproduced in this section. The recommendations set out should be reviewed and where relevant to the particular Plan/Programme area should be addressed by way of relevant objectives and policies.

5. URBAN WASTE WATER DISCHARGES RECOMMENDATIONS

The recommendations set out in the EPA's most recent "Urban Waste Water Discharges In Ireland" Report are reproduced in this section. The recommendations set out should be reviewed and where relevant to the particular Plan/ Programme area should be addressed by way of relevant objectives and policies.

6. WETLANDS CONSERVATION AND PROTECTION

The definition of Wetlands as presented in the EPA's "Code of Practice on Environment Risk Assessment for Waste Sites". The definition will guide habitat mapping of wetland sites and will also inform policies and objectives related to the protection of wetlands.

7. APPROPRIATE ASSESSMENT OF LAND USE PLANS

The Guidance issued by way of a Circular Letter (SEA 1/08 & NPWS 1/08) , dated 15 February, 2008 entitled "Appropriate Assessment of Land Use Plans" is reproduced in this section. The guidance issued is relevant to all Land Use Plans and is also applicable to Plans/ Programmes for all sectors covered by the SEA Directive.

Recent guidance has been published by the DoEHLG (National Parks and Wildlife Service) should be consulted for all Appropriate Assessments – *Appropriate Assessment of Plans and Projects in Ireland which should be consulted for all Appropriate Assessments*. (DoEHLG, 2009). It has not included in this Pack due to document size, however may be retrieved from the following address:

<http://www.npws.ie/en/media/NPWS/Publications/CodesofPractice/AA%20Guidance.pdf>



ENVIRONMENTAL PROTECTION AGENCY

STRATEGIC ENVIRONMENTAL ASSESSMENT

SEA PROCESS GUIDANCE

SEA Process Guidance

EPA SEA Pack

The EPA 's SEA Pack has been issued as a separate file electronically. This Pack has been compiled by the EPA and is based on our experience to date as a statutory SEA Environmental Authority and on current best practice in the SEA process. The SEA Pack is issued as part of statutory SEA Scoping consultation in relation to the Development Plan, it is a matter for the relevant Local Authorities (the LA) to ensure that the contents of the Pack are taken into account and followed as appropriate during the SEA process.

Up-to-date Environmental Monitoring Data etc.

The current state of the environment should be described using most recent and up-to-date environmental data, information and reports. Where updating of significant environmental data and associated reports become available during the SEA process, where possible, this information should be incorporated into the description of the current state of the environment and where relevant related environmental problems.

You are referred in this regard to the full range of Water and Air Quality Reports prepared by the EPA.

(See [www.epa.ie
https://www.epa.ie/downloads/pubs/other/corporate/occs/publist/publications%20list%20nov%2007.pdf](http://www.epa.ie/downloads/pubs/other/corporate/occs/publist/publications%20list%20nov%2007.pdf)).

Geographical Information Systems

You are referred to the EPA's web based Environmental Mapping / Geographical Information System (GIS) ENVision, which can be found at:

<http://maps.epa.ie/InternetMapView/MapView.aspx>

The use, and application, of GIS should be considered where possible at the various key stages in the SEA process. GIS could, along with other methodologies, and depending on the availability of relevant spatial data, assist in determining the cumulative vulnerability of various environmental resources within the Plan area. GIS could also demonstrate visually how the Plan might impact on these resources. In undertaking the SEA, all the environmental data and information presented on these GIS based maps should be taken into account.

You are referred to the updated EPA GISEA Manual, which has recently been posted as a Consultation Document on the EPA's SEA WebPage. This document can be downloaded via the following link:

<http://www.epa.ie/downloads/consultation/name.25835.en.html>

Appropriate Assessment

You are referred to the requirements of Article 6 of *Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora*, the Habitats Directive. Appropriate Assessment, in accordance with the Directive, is required for:

“Any plan or project not directly connected with or necessary to the management of the site (Natura 2000 sites) but likely to have significant effect thereon, either individually or in combination with other plans or projects, shall be subject to

Appropriate Assessment of its implications for the site in view of the sites conservation Objectives...”

The LA should consult with the National Parks and Wildlife Service (NPWS) with regard to screening of the Plan for Appropriate Assessment. Where Appropriate Assessment is required, any findings or recommendations should be incorporated into the SEA Environmental Report and Plan, as appropriate.

In order to determine the requirement for an Appropriate Assessment the following Guidance is referenced.

European Commission, 2000. Managing Natura 2000 Sites – The provisions of Article 6 of the ‘Habitats’ Directive 92/43/EEC

http://ec.europa.eu/environment/nature/natura2000/management/docs/art6/provision_of_art6_en.pdf

European Commission, 2002. Assessment of plans and projects significantly affecting Natura 2000 sites - Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC

http://ec.europa.eu/environment/nature/natura2000/management/docs/art6/natura_2000_assess_en.pdf

National Parks and Wildlife Service (DoEHLG, 2009). Appropriate Assessment of Plans and Projects in Ireland

<http://www.npws.ie/en/media/NPWS/Publications/CodesofPractice/AA%20Guidance.pdf>

Scoping Meetings/Workshops

As part of the SEA Scoping process, we would suggest that the convening of a Scoping Meeting / Workshop with key staff within the LA (planning, roads, environment, heritage etc.) be considered. There would also be merits in having personnel from National Parks and Wildlife Service (NPWS), Department of Communications, Energy and National Resources (DCENR), and Environmental Protection Agency, as appropriate, at this meeting. The EPA will attend subject to resources and time constraints.

For any environmental issue(s) determined to be scoped out of the SEA process, clear justification should be included in the Environmental Report as to why the specific environmental issues were not considered likely to be potentially affected by the Plan.

Alternatives

In considering and assessing alternatives, the alternatives proposed should be reasonable and realistic and should be set at the appropriate strategic level at which the Plan will be implemented operating within the national planning hierarchy. They should be assessed against the relevant environmental objectives established for the key environmental aspects of the environment likely to be significantly affected. Clear justification should be provided for the selection of the preferred alternative/combination of alternatives.

Where relevant, the development of alternatives should be clearly described. In addition, the methodology applied in the assessment of alternatives along with any assumptions made should be described.

Consultation

In order to promote Best Practice in SEA in the context of consultation, it is recommended that the public be given an opportunity to make submissions on the issues to be addressed in the SEA process for the Plan. To this effect consideration should be given to the publication of relevant and appropriate notices etc. to inform and engage the wider public in the SEA process.

Following completion of the Draft Scoping Report consideration should be given to the making available of this document on the LA website or other relevant websites.

Assessment of Likely significant effects

In assessing the likely significant effects of the Plan on the full range of environmental issues likely to be significantly affected, the full range of effects as set out in Annex I of the SEA Directive - likely significant effects should include-secondary, cumulative, synergistic, short, medium and long term, permanent, temporary, positive and negative effects, should be assessed and reported on.

Particular reference should be made to the potential for cumulative effects associated with the implementation of the Plan in association with other relevant Plans / Programmes and projects within the LA area and adjoining areas.

The methodology applied in the assessment of the preferred alternative along with any assumptions made should be described. Where possible and practical, quantitative assessments should be undertaken of the assessment of the preferred alternative/ combination of alternatives.

Mitigation of significant effects

Where significant adverse effects are identified associated with the implementation of the Plan, there should be a clear link with relevant and appropriate mitigation measure(s). The emphasis should, in the first instance, be on avoidance of significant adverse effects.

Monitoring Proposals

Monitoring arrangements should be clearly set out along with responsibilities, frequency of monitoring, analysis, and reporting on monitoring. Monitoring arrangements should be sufficiently flexible so as to be able to react to unforeseen / unexpected events. Maximum use should be made of existing environmental monitoring programmes. To this effect, the significant environmental monitoring required under the Water Framework Directive should fulfill most if not all of the requirements with respect to water quality.

The monitoring arrangements and related monitoring programme for the Plan should include relevant and appropriate thresholds which should trigger when remedial

action should be undertaken for the particular aspect of the environment being monitored.

Process and SEA-Environmental Report Compliance

The SEA Process for the Plan should comply fully with the procedural and output requirements set out in the SEA Directive, and the relevant national SEA Regulations. The Environmental Report should be prepared in accordance with the specific information specified in Article 5 - Environmental Report, Paragraphs 1 – 3 and Annex I of the SEA Directive.

Integration of SEA and Plan/Programme

Particular emphasis should be given during the SEA and Plan-making process to ensuring that both processes are fully integrated from the outset. Appropriate SEA Team /Plan Team Workshops should be held at key stages during both processes to ensure full engagement, interaction, and sharing of information with key members of both teams and to ensure full integration of environmental considerations in the Plan.

Consideration could also be given to the assigning a facilitator either within or external to the LA with the specific role of ensuring full integration takes place during the SEA process and the Plan making process. This can be particularly beneficial where SEA is being undertaken by the LA.

Documentation of the SEA Process

Where key decisions are made during the SEA process e.g. Scoping In/Out environmental topics, selection of preferred alternative (s) etc. these decisions should be documented as part of an overall SEA/ Plan making process.

Possible Proposed Amendments to the Draft RPGs

You are referred to the requirement for any amendments proposed to the Draft Plan, to be assessed for likely significant effects. This assessment should take account of the SEA Regulations Schedule 2A Criteria (S.I 436 of 2004) and should be subject to the same method of assessment as undertaken in the “environmental assessment” of the Draft Plan.

Information on the Decision/ SEA Statement

Following adoption of the Plan the competent authority is required to make available the adopted P/P and a statement setting out relevant “Information on the Decision” as set out in Article 9 of the SEA Directive.

You are referred to the requirement to prepare an SEA Statement outlining “Information on the Decision” as required by:

- Article 13I of Planning and Development Regulations as amended by Article 7 of the SEA Regulations in relation to Development Plans, or
- Article 14I of the Planning and Development Regulations as amended by Article 8 of the SEA Regulations in relation to Local Area Plans.

This SEA Statement should summarise the following:

- how environmental considerations have been integrated into the Plan;

- how the Environmental Report, submissions, observations and consultations have been taken into account during the preparation of the Plan;
- the reasons for choosing the Plan adopted in the light of other reasonable alternatives dealt with; and,
- the measures decided upon to monitor the significant environmental effects of implementation of the Plan.

A copy of the SEA Statement with the above information should be sent to any environmental authority consulted during the SEA process.

While not a mandatory requirement consideration should be given at the Draft Plan stage to providing summary key information on: the key findings of the environmental assessment and how these findings have been integrated within the Plan.

SEA Guidance /Methodology

You are referred to the following Guidance/ Methodology, which should be referred to along with other relevant and appropriate SEA and related Guidance during the SEA process:

- EPA –Development of Strategic Environmental Assessment (SEA) Methodologies for Plans and Programmes in Ireland –Synthesis report (EPA, 2003)
<http://www.epa.ie/downloads/advice/ea/name,13547,en.html>
- The Department of Environment Heritage and Local Government Guidelines: “Implementation of SEA Directive 92001/42/EC): Assessment of the Effects of Certain Plans and Programmes on the Environment –Guidelines for Regional Authorities and Planning Authorities” (DoEH&LG, November 2004) While the focus is on Land use Planning, this SEA guidance is of relevance.
<http://www.environ.ie/en/Publications/DevelopmentandHousing/Planning/FileDownload,1616,en.pdf>

In addition, to the above, it is brought to your attention that a Draft Consultation SEA Process Checklist has been published on the EPA website. The Checklist can be accessed at the following link:

<http://www.epa.ie/downloads/consultation/name,24012,en.html>

You are also referred to Appendix B -SEA Process Checklist in EPA –Development of Strategic Environmental Assessment (SEA) Methodologies for Plans and Programmes in Ireland –Synthesis report (EPA, 2003).

Environmental Authorities

You are referred to the requirement, where appropriate under the SEA Regulations, to give notice to the following:

- The Minister for the Environment, Heritage & Local Government where it appears to the Planning Authority that the Guidelines might have significant effects in relation to architectural or archaeological heritage or to nature conservation, and

- The Minister for Communications, Energy and Natural Resource (formerly Communications, Marine and Natural Resource), where it appears to the Planning Authority that the proposed Plan might have significant effects on fisheries or the marine environment.

Your attention is also brought to the statutory consultation role of the National Parks and Wildlife Service in relation to Habitats Directive Assessments.



ENVIRONMENTAL PROTECTION AGENCY

STRATEGIC ENVIRONMENTAL ASSESSMENT

DRAFT SCOPING CHECKLIST

Working Document

SEA Scoping Checklist for use by SEA and Plan-making Team during SEA and Plan – making Process

Water: Infrastructure and Quality

Waste Water Treatment

Current capacity and level of treatment
 Predicted future capacity and predicted future requirement
 Septic tanks
 Performance of existing treatment plant(s)
 Scheduled phasing of upgrading/construction
 Monitoring/maintenance
 Proposals to link with existing treatment plants
 Existing problems – surface/groundwater quality
 Foul drainage/surface drainage - linked/separate
 Sustainable Urban Drainage System (SUDS)
 Storm water storage

<input type="checkbox"/>
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Possible Task(s):

Undertake assessment of wastewater infrastructural needs
 Short/medium/long-term programme for upgrade of wastewater treatment systems.
 Programme of maintenance of septic tanks
 Linkage of septic tanks to foul drainage system

Some Useful Information Source(s):

Updated Legislation

- *Environmental Objectives (Surface Waters) Regulations 2009* 2009 (S.I. No 272 of 2009)
<http://www.environ.ie/en/Environment/Water/WaterQuality/EnvironmentalObjectivesSurfaceWatersRegulations2009/>
- *Waste Water Discharge (Authorisation) Regulations, 2007*, S.I. No. 684 of 2007

DoEHLG – Water Services

- <http://www.environ.ie/DOEI/DOEIPol.nsf/wvNavView/wwdWaterServices?OpenDocument&Lang=en>

EPA :*Urban Waste Water Discharges in Ireland –for Population Equivalents Greater than 500 Persons- A report for the Years 2006 and 2007* (EPA, 2009).

EPA: Code of Practice Wastewater Treatment and Disposal Systems serving Single Houses (EPA, 2009)

- <http://www.epa.ie/downloads/pubs/water/wastewater/>

<p>Existing Environmental Information:</p> <p>Existing Environmental Problems:</p> <p>Information Gaps:</p>
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<p>Scoping Meeting Actions and Responsibilities:</p>	1
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Water Supply

Source(s) – surface water/groundwater

Adequacy of supply

Existing capacity and level of treatment

Predicted future capacity and predicted future requirement

Existing problems – surface/groundwater quality

Percentage water loss through leaking infrastructure

Protection of significant water bodies from pollution

<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>

Possible Task(s):

Water leak monitoring programme

Undertake assessment of water supply infrastructure needs

Programme for replacement of infrastructure

Some Useful Information Source(s):

DoEHLG – Water Services

- <http://www.environ.ie/DOEI/DOEIPol.nsf/wvNavView/wwdWaterServices?OpenDocument&Lang=en>

EPA: *The provision and Quality of Drinking Water in Ireland – A report for the Years 2007 – 2008* (EPA, 2009)

- <http://www.epa.ie/downloads/pubs/water/drinking/>

Existing Environmental Information:

Existing Environmental Problems:

Information Gaps:

Scoping Meeting Actions and Responsibilities:

Watercourses/Surface Water Quality

Fisheries

Biological water quality: Q-values

Chemical water quality

Existing monitoring

Application of buffer zone along watercourses

Emergency plan regarding spillages

Climate change implications – low flow/drought

<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>
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<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>

Some Useful Information Source(s):

DoEHLG – Water Quality

- <http://www.environ.ie/DOEI/DOEIPol.nsf/wvNavView/Water+Quality?OpenDocument&Lang>

EPA

- <http://www.epa.ie/environment/water/>

Existing Environmental Information:

Existing Environmental Problems:

Information Gaps:

Scoping Meeting Actions and Responsibilities:

Ground water

- Drinking water
- Aquifer characterisation
- Aquifer vulnerability
- Source protection
- Saline intrusion (coastal locations)
- Monitoring/mitigation

<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>

Possible Task(s):

- Groundwater Protection Scheme
- Groundwater Monitoring Programme

Some Useful Information Source(s):

Updated Legislation

- *European Communities Environmental Objectives (Groundwater) Regulations 2010 (S.I.9 of 2010)*
<http://www.environ.ie/en/Environment/Water/WaterQuality/GroundwaterRegulations2010/>

GSI – Groundwater (classification and vulnerability mapping)

- <http://www.gsi.ie/Mapping.htm>

EPA

- <http://www.epa.ie/environment/water/ground/>

Existing Environmental Information:

Existing Environmental Problems:

Information Gaps:

Scoping Meeting Actions and Responsibilities:

WFD River Basin District

River characteristics – River Characterisation Report

Risk category

Q-values

Fisheries value, e.g. oysters, salmonids

Linkages with groundwater

<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>

Possible Task(s):

Review River Characterisation Report

Some Useful Information Source(s):

EPA River Water Quality Reports

- <http://www.epa.ie/OurEnvironment/Water/Rivers/RiverWaterQualityReports/>

WFD River Characterisation Reports

- <http://www.wfdireland.ie/>

WFD Significant Water Management Issues Report for relevant River Basin District

- <http://www.wfdireland.ie/>

WFD SEA Scoping Report for relevant River Basin District

- <http://www.wfdireland.ie/>

Existing Environmental Information:

Existing Environmental Problems:

Information Gaps:

Scoping Meeting Actions and Responsibilities:

Beaches

Bathing water status: Blue Flag Criteria

Bathing water quality monitoring

Integrated Coastal Zone Management

Some Useful Information Source(s):

Environmental Protection Agency

- <http://www.epa.ie/environment/water/bathing/>

An Taisce

- <http://www.antisce.org/education/blue-flag-campaign-1/beaches.pdf/view?searchterm=BLUE%20FLAG%20BEACHES>

Existing Environmental Information:

Existing Environmental Problems:

Information Gaps:

Scoping Meeting Actions and Responsibilities:

Flood Protection

Flood risk management

Areas currently at risk

Development pressure on flood plains

Climate change - implications/adaptation/design standards

Possible Task(s):

Prepare a Flood Risk Management Plan for the area (utilising a catchment based approach)

Produce map of flooding extent (historical and predicted future) for the area

Some Useful Information Source(s):

- *The Planning System and Flood Risk Management - Guidelines for Planning Authorities (DoEHLG, 2009)*
<http://www.environ.ie/en/Publications/DevelopmentandHousing/Planning/NationalSpatialStrategy/Flood%20Risk%20Management/>

Office of Public Works Flood Prediction Site

- <http://www.flooding.ie/planning.htm>
- <http://www.floodmaps.ie/>

Existing Environmental Information:

Existing Environmental Problems:

Information Gaps:

Scoping Meeting Actions and Responsibilities:

Harbours/Marinas - Generally for Harbour Plans

- Waste recycling
- Accidental spills
- Emergency plan regarding spillages
- Ballast water
- Oil/waste oil storage
- Hazardous waste
- Code of practice regarding water quality
- Dredging proposals
- Disposal of dredging spoil
- Invasive species
- Presence of nearby Shellfish Waters?

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Possible task:

- Implementation of Marina Water Quality Management Plan
- Implementation of Harbour Management Plan

Some Useful Information Sources:

- <http://www.dcmnr.gov.ie/Marine/>

Existing Environmental Information:

Existing Environmental Problems:

Information Gaps:

Scoping Meeting Actions and Responsibilities:

TRANSPORT

Roads – proposed improvements, bypass schemes; status of same

Rail

Public transport

Cycle lanes

Walking routes

Installation of lighting and/or footpaths

Maintenance of existing transport infrastructure

Proposed construction/improvement of transport infrastructure

Parking facilities

Existing problems of congestion

Air travel/ exclusion zones

Rural transport

<input type="checkbox"/>
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Possible Task(s):

Development of Integrated Traffic Management Plan

Some Useful Information Sources:

Department of Transport

- <http://www.transport.ie/>

National Roads Authority

- <http://www.nra.ie/>

Existing Environmental Information:

Existing Environmental Problems:

Information Gaps:

Scoping Meeting Actions and Responsibilities:

BUILT ENVIRONMENT

Heritage

Heritage features – historical importance, sense of place

Architectural features – individual sites/complexes

Archaeology – land/coast/marine based; known/potential

Architectural Conservation Areas

Industrial architecture

Historical features, battle sites

Historical landscapes/heritage landscapes, e.g. stone walls

Possible Task(s):

Promotion of linkages between different features/complexes of features by way of trails/walking routes, etc

Some Information Source(s):

National Inventory of Architectural Heritage

- <http://www.buildingsofireland.ie/>

Heritage of Ireland

- <http://www.heritageireland.ie>

Existing Environmental Information:

Existing Environmental Problems:

Information Gaps:

Scoping Meeting Actions and Responsibilities:

AMENITY

- | | |
|---|--------------------------|
| Open space | <input type="checkbox"/> |
| Estates, gardens | <input type="checkbox"/> |
| Public realm/towns | <input type="checkbox"/> |
| Community facilities – playing areas | <input type="checkbox"/> |
| Cycle/Walking routes | <input type="checkbox"/> |
| Waterside/Lakeside/Coastal features | <input type="checkbox"/> |
| Historical/archaeological trails | <input type="checkbox"/> |
| Fishing | <input type="checkbox"/> |
| Boating/sailing/wind surfing and other water based activities | <input type="checkbox"/> |
| Other sporting/recreational activities | <input type="checkbox"/> |

Some Information Source(s):

Go Outdoor Ireland

- <http://www.gooutdoorireland.com/>

Existing Environmental Information:

Existing Environmental Problems:

Information Gaps:

Scoping Meeting Actions and Responsibilities:

BIODIVERSITY

Designated sites (SACs, SPAs, NHAs) – need for appropriate assessment	<input type="checkbox"/>
Designated sites (SACs, SPAs, NHAs) – management plan/notifiable activities	<input type="checkbox"/>
Habitats – habitat mapping, quality	<input type="checkbox"/>
Buffer zone application (e.g. designated features, water bodies, valuable habitats)	<input type="checkbox"/>
Habitats of value/importance (e.g. woodlands, wetland features)	<input type="checkbox"/>
Hedgerows	<input type="checkbox"/>
Trees/groups of trees, Tree Protection Order's	<input type="checkbox"/>
Fisheries	<input type="checkbox"/>
Protected species – e.g. otters, bats, badgers, salmonids, seals, etc	<input type="checkbox"/>
Other species of value	<input type="checkbox"/>
Local biodiversity – ponds, ditches, watercourses, lakes, ecological networks	<input type="checkbox"/>
WFD – RBDs – River/Water body characterisation, monitoring	<input type="checkbox"/>
Invasive species, e.g. Japanese Knotweed, Giant Hogweed, Zebra mussel	<input type="checkbox"/>

Possible Task(s):

SAC/SPA Management/Maintenance Plan

Habitat Mapping – water features, woodlands, trees and hedgerows, etc.

Some Information Source(s):

National Parks and Wildlife Service

Appropriate Assessment of Plans and Projects in Ireland- Guidance for Planning Authorities:

<http://www.npws.ie/en/media/NPWS/Publications/CodesofPractice/AA%20Guidance.pdf>

Invasive Species

<http://www.invasivespeciesireland.com/>

National Biodiversity Data Centre

<http://www.biodiversityireland.ie/>

EPA –Environmental Maps

- <http://maps.epa.ie/InternetMapView/MapView.aspx>

Existing Environmental Information:

Existing Environmental Problems:

Information Gaps:

GEODIVERSITY/MINING/QUARRIES

Features of geological/geomorphological interest

Mining exploration (current and past)

Quarry – sand/gravel/rock

Possible Task(s):

Preparation of register of known features of geological/geomorphological interest

Preparation of register of active and closed mines/quarries

Remediation of closed mines/quarries

Information Source(s):

The Geological Survey of Ireland

- <http://www.gsi.ie>

Existing Environmental Information:

Existing Environmental Problems:

Information Gaps:

Scoping Meeting Actions and Responsibilities:

LANDSCAPE

Characteristics of local landscape, lakescape, riverscape, townscape, streetscape	<input type="checkbox"/>
Landscape Character Assessment	<input type="checkbox"/>
Unique landscape features – e.g. stone walls, woodlands, estuaries	<input type="checkbox"/>
Landscape, landform, contours	<input type="checkbox"/>
Tree lines and groups/Tree Protection Orders	<input type="checkbox"/>
Seascape – outward views, inward views	<input type="checkbox"/>
Scenic areas, routes	<input type="checkbox"/>
Gardens	<input type="checkbox"/>
Historical landscape	<input type="checkbox"/>
Dereliction	<input type="checkbox"/>
Brownfield Development	<input type="checkbox"/>
Building design – height restrictions, suitable design for surroundings	<input type="checkbox"/>

Possible Task(s):

Landscape Character Assessment
 Landscape Visual Assessment
 Designation and protection of sensitive landscapes
 Protection of scenic views and scenic routes
 Guidelines on visual assessment of significant developments in context of key landscape features

Some Information Source(s):

DoEHLG guidelines (2004 draft)

- <http://www.environ.ie/en/Publications/DevelopmentandHousing/Planning/FileDownload,1608,en.doc>

Landscape Policy Development

- <http://www.heritagecouncil.ie/landscape/LandscapePolicy.pdf>

Heritage Council

- http://www.heritagecouncil.ie/publications/LCA_2006/index.html

<p>Existing Environmental Information:</p> <p>Existing Environmental Problems:</p> <p>Information Gaps:</p>
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<p>Scoping Meeting Actions and Responsibilities:</p>

AGRICULTURE

Type and intensity of agriculture

Forestry

Fisheries

Market Gardening

Size of farm units

Quality of soil/sub-soil

Possible Task(s):

Investigate opportunities for protection of best-quality soils through land use zoning

Information Source(s):

Teagasc Soil Surveys

- <http://www.teagasc.ie>

Corine 2006 Land Use Database

- <http://www.epa.ie/OurEnvironment/Land/CorineLandCover/Background/>

EPA ENVision

- <http://maps.epa.ie/InternetMapView/MapView.aspx>

Existing Environmental Information:

Existing Environmental Problems:

Information Gaps:

Scoping Meeting Actions and Responsibilities:

WASTE MANAGEMENT

General Waste

Recycling facilities/initiatives

Litter, Litter Warden

Hazardous materials

Illegal dumping

Construction waste recycling/disposal

Contaminated soil

Historical closed landfill sites

<input type="checkbox"/>
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<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>

Possible Task(s):

Preparation of Integrated Waste Management Plan

Community based recycling initiatives

Remediation of historical landfill sites

Some Information Source(s):

DoEHLG - Litter:

- <http://www.environ.ie/DOEI/DOEIPol.nsf/wvNavView/Litter+Pollution?OpenDocument&Lang=>

DoEHLG - WEEE:

- <http://www.environ.ie/DOEI/DOEIPol.nsf/wvNavView/Litter+Pollution?OpenDocument&Lang=>

DoEHLG - Waste Management:

- <http://www.environ.ie/DOEI/DOEIPol.nsf/wvNavView/Waste+Management?OpenDocument&Lang=>

Race Against Waste:

- <http://raceagainstwaste.com>

EPA

- <http://www.epa.ie/environment/waste/>
- <http://www.epa.ie/downloads/pubs/waste/>

Existing Environmental Information:

Existing Environmental Problems:

Information Gaps:

Scoping Meeting Actions and Responsibilities:

ENERGY/COMMUNICATIONS

Conservation – building standards, insulation

Renewables – wind, geothermal, solar, hydro, tidal, wave

Energy efficiency in buildings, sustainable building design

Transmission networks – current capacity and condition

Transmission networks – replacement and extension of infrastructure

Visual impact of infrastructure (energy and telecommunications)

Possible Task(s):

Formulation of policies and objectives regarding energy conservation

Formulation of policies and objectives regarding renewable energy

Information Source(s):

Sustainable Energy Ireland

- <http://www.sei.ie>

Department of Communications, Marine and Natural Resources

- <http://www.dcmnr.gov.ie/>

Green Paper: Towards a sustainable energy future for Ireland

- <http://www.dcmnr.gov.ie/NR/rdonlyres/54C78A1E-4E96-4E28-A77A-3226220DF2FC/26716/EnergyGreenPaper1October2006.pdf>

Existing Environmental Information:

Existing Environmental Problems:

Information Gaps:

Scoping Meeting Actions and Responsibilities:

AIR/CLIMATE

Power plants

Greenhouse gasses

Climate change

Noise

Traffic

Information Source(s):

DoEHLG – Air Quality

- <http://www.environ.ie/DOEI/DOEIPol.nsf/wvNavView/Air+Quality?OpenDocument&Lang>

National Climate Change Strategy

- [http://www.environ.ie/DOEI/doeipub.nsf/0/7d411c497cb4fbd80256f88003b0961/\\$FILE/pccguideinside%5B1%5D.pdf](http://www.environ.ie/DOEI/doeipub.nsf/0/7d411c497cb4fbd80256f88003b0961/$FILE/pccguideinside%5B1%5D.pdf)

EPA

- <http://www.epa.ie/environment/air/>
- <http://www.epa.ie/downloads/pubs/air/quality/>

Existing Environmental Information:

Existing Environmental Problems:

Information Gaps:

Scoping Meeting Actions and Responsibilities:

TOURISM

Major projects

Sufficient infrastructural linkages

Cater for increased numbers during the Summer

Consolidate development in tourist related areas

Possible Task(s):

Preparation of Tourism Plan

Promotion of linkages between features/groups of features

Promotion of cycle ways, walking routes, waterways/navigational corridors as tourist trails

Some Information Source(s):

<http://www.failteireland.ie/getdoc/39d3d1be-7eed-4798-b349-17a0c58163d6/Home.aspx>

Existing Environmental Information:

Existing Environmental Problems:

Information Gaps:

Scoping Meeting Actions and Responsibilities:

Some Examples of Possible Key Issues

- Infrastructural requirements
- Water quality (surface water/groundwater/estuarine/coastal)
- Landscape
- Biodiversity
- Flooding
- Significance of proposed population changes
- Waste management
- Traffic management
- Climate change
- Forward planning

Some Examples of Possible Challenges

Options

- Land use zoning
- Restrictions/buffers
- Protection of landscapes/green belt areas
- Flood Risk Areas

Nature of zoning

- Protected areas
- Flood risk areas
- Riverside/Water body buffer
- High amenity areas
- Protected landscape/streetscape/lakescape

Mixture of zoning

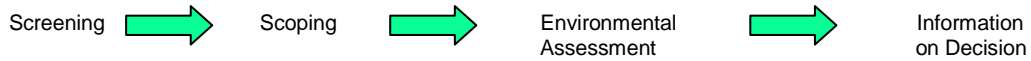
- Density
- Extent and need for further zoning



ENVIRONMENTAL PROTECTION AGENCY

STRATEGIC ENVIRONMENTAL ASSESSMENT

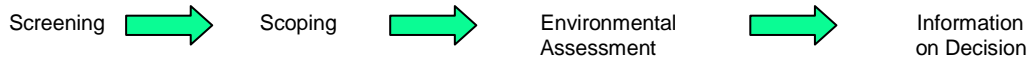
SEA PROCESS CHECKLIST
Consultation Draft 18th January 2008



Disclaimer:

It is the SEA Directive (2001/42/EC) and SEA Regulations (S.I. 435 & 436 of 2004) that set out the statutory requirements with respect to the environmental assessment of plans and programmes. The purpose of this document is to provide guidance to the plan/programme making authority during the SEA process.

Although every effort has been made to ensure the accuracy of the material contained in this publication, complete accuracy cannot be guaranteed. Neither the Environmental Protection Agency nor the author(s) accept any responsibility whatsoever for loss or damage occasioned or claimed to have been occasioned, in part or in full, as a consequence of any person acting, or refraining from acting, as a result of a matter contained in this publication.



Acknowledgements

The SEA Process Checklist Work Group responsible for the preparation of this Document are as follows:

Core Work Group Members:

External Representative:

Terry Prendergast, Dublin Institute of Technology

EPA Research Fellows:

SEA Research Fellow:

Alison Donnelly, Trinity College Dublin/Environmental Research Centre

Local Authority Research Fellows:

Lianda d'Auria, University College Dublin/Clare County Council

Margaret Desmond, University College Cork /Cork City Council

EPA SEA Section:

Tadhg O'Mahony

EPA Research Assistants:

Rory Devlin, David O'Driscoll

Additional Contributors:

EPA SEA Section:

Ashling Cronin, Sandrine Delalieux, Michael Owens

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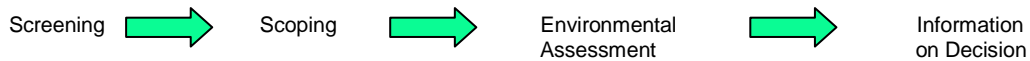
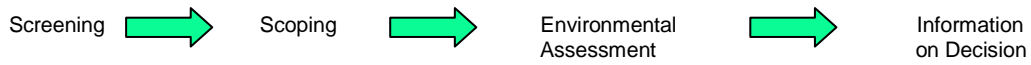


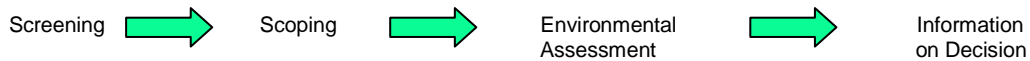
Table of Contents

<u>Section</u>	<u>Title</u>	<u>Page</u>
	Disclaimer	i
	Acknowledgements	ii
	Table of Contents	iii
	Abbreviations	iv
	Glossary	v
	Introduction	1
1	Screening	4
2	Scoping	5
3	Consultation	7
4	Plan Description	9
5	Existing Environment	10
6	Objectives, Indicators and Targets	12
7	Consideration of Alternatives	14
8	Likely Significant Effects of the Plan or Programme	15
9	Mitigation Measures	17
10	Monitoring	18
11	Environmental Report and Non-Technical Summary	20
	Information on the Decision (SEA Statement)	22
	Quality and Integration with the Plan/Programme	23
	References	24
	SEA Consultation Bodies/Environmental Authorities	26
	Legislation	27
	Guidance	29
	Useful Web-Sites	32
	Case Studies	34
	Appendices	
	- Appendix I – Annex I of the SEA Directive (2001/42/EC)	35
	- Appendix II – Schedules 1 and 2 of S.I. No. 435 of 2004	37
	- Appendix III – Schedule 2B of S.I. No. 436 of 2004	42
	- Appendix IV – Objectives, Targets and Indicators	45
	Explanation	
	- Appendix IV – Methodology for establishing environmental objectives, targets and indicators	47



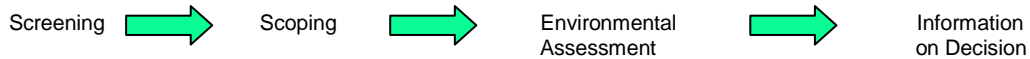
Abbreviations

DCENR	Department of Communications, Energy and Natural Resources
DoEHLG	Department of the Environment, Heritage and Local Government
EPA	Environmental Protection Agency
ER	Environmental Report
P/P	Plan or Programme
SEA	Strategic Environmental Assessment



Glossary

Appropriate Assessment	An assessment of the effects of a plan or project on the Natura 2000 network. The Natura 2000 network comprises Special Protection Areas under the Birds Directive, Special Areas of Conservation under the Habitats Directive and Ramsar sites designated under the Ramsar Convention (collectively referred to as European sites).
Baseline environment:	A description of the present state of the environment of the P/P area.
Birds Directive:	Council Directive of 2nd April 1979 on the conservation of wild birds (79/409/EEC).
Cumulative effects:	Effects on the environment that result from incremental changes caused by the strategic action together with other past, present, and reasonably foreseeable future actions. These effects can result from individually minor but collectively significant actions taking place over time or space.
Data:	Includes environmental data, proxy data, any other relevant statistical data.
Designated authority (Designated environmental authority):	An organisation that must be consulted in accordance with the SEA Regulations. For Ireland these are the Environmental Protection Agency (EPA), the Department of the Environment, Heritage and Local Government (DoEHLG) and the Department of Communications, Energy and Natural Resources (DCENR).
Environmental Assessment:	The preparation of an environmental report, the carrying out of consultations, the taking into account of the environmental report and the results of the consultations in decision-making and the provision of information on the decision (in accordance with Articles 4 to 9 of the SEA Directive).
Environmental Characteristics:	Environmental resources, issues and trends in the area affected by the P/P.
Environmental indicator:	An environmental indicator is a measure of an environmental variable over time, used to measure achievement of environmental objectives and targets.
Environmental objective:	Environmental objectives are broad, overarching principles which should specify a desired direction of environmental change.
Environmental receptors:	Include biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage (including architectural and archaeological) and landscape as listed in the SEA Directive. This list is not exhaustive, and can include other receptors which may arise for a particular P/P.
Environmental Report (ER):	A document required by the SEA Directive as part of an environmental assessment which identifies, describes and evaluates the likely significant effects on the environment of implementing a plan or programme.



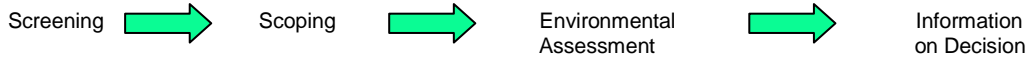
Environmental targets:	A target usually underpins an objective often having a time deadline that should be met and should be accompanied by limits or thresholds.
Evolution of the baseline:	A description of the future state of the baseline in the absence of a plan or programme assuming 'business as usual' or 'do nothing' scenarios, depending on which is more reasonable for the P/P being proposed.
Habitats Directive:	Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora.
Hierarchy of Plans:	Both higher and lower level P/P relevant to the P/P being assessed.
Indirect effect:	Any aspect of a P/P that may have an impact (positive or negative) on the environment, but that is not a direct result of the proposed P/P. May also be referred to as a secondary effect
Interrelationships:	Associations or linkages, related to environmental impact of the proposed P/P usually on environmental receptors.
Issues Paper:	Paper produced as part of the consultation process, usually for Land Use Plans, to facilitate consultation with stakeholders on key issues.
Key environmental issues:	Those significant environmental issues, which are of particular relevance and significance within a P/P area and/or the zone of influence of that P/P. These issues should be identified during SEA Scoping process.
Key environmental receptors:	Aspects of the environment likely to be significantly impacted by the proposed P/P.
Material Assets:	Critical infrastructure essential for the functioning of society such as: electricity generation and distribution, water supply, wastewater treatment transportation etc.
Member States:	Those countries that belong to the European Union.
Mitigation measures:	Measures to avoid/prevent, minimise/reduce, or as fully as possible, offset/compensate for any significant adverse effects on the environment, as a result of implementing a P/P.
Monitoring:	A continuing assessment of environmental conditions at, and surrounding, the plan or programme. This determines if effects occur as predicted or if operations remain within acceptable limits, and if mitigation measures are as effective as predicted. The primary purpose of monitoring is to identify significant environmental effects which arise during the implementation stage against those predicted during the plan preparation stage.
Monitoring Programme:	A detailed description of the monitoring arrangements to be put in place to carry out the monitoring of the impact of the proposed P/P on the environment including; frequency of monitoring, who has responsibility for monitoring, and responses if monitoring identifies significant negative impacts.
Non-technical summary:	A summary of the findings of the ER, summarized under the headings listed in Annex 1 of the SEA Directive that can be readily understood by decision-makers and by the general public. It should accurately reflect the findings of the ER.



Plan or Programme:	<p>Including those co-financed by the European Community, as well as any modifications to them:</p> <ul style="list-style-type: none"> - which are subject to preparation and/or adoption by an authority at national, regional or local level or which are prepared by an authority for adoption, through a legislative procedure by Parliament or Government, and - which are required by legislative, regulatory or administrative provisions. <p>In accordance with the SEA Directive, P/P that require SEA are those that fulfil the conditions listed in Article 2(a) and Article 3 of the SEA Directive.</p>
Post-mitigation residual impacts:	Environmental effects that remain after mitigation measures have been employed.
Proxy data:	Is a measure of activity resulting from a P/P which provides information on environmental impact without the need for a direct measure of an environmental receptor. For example, an increase in the number of vehicles (activity resulting from a P/P) can provide information on the impact on air quality and greenhouse gases without having to measure the concentration of these parameters in the receiving environmental receptor.
Public:	One or more natural or legal persons and, in accordance with national legislation or practice, their associations, organisations or groups.
Reasonable alternatives:	Alternatives should take into account the objectives and geographical scope of the P/P. There can be different ways of fulfilling the P/P objectives, or of dealing with environmental problems. The alternatives should be realistic, capable of implementation and should fall within the legal and geographical competence of the authority concerned.
Scoping:	The process of deciding the content and level of detail of an SEA, including the key environmental issues, likely significant environmental effects and alternatives which need to be considered, the assessment methods to be employed, and the structure and contents of the Environmental Report.
Screening:	The determination of whether implementation of a P/P would be likely to have significant environmental effects on the environment. The process of deciding whether a P/P requires SEA.
SEA Directive:	Directive 2001/42/EC 'on the assessment of the effects of certain plans and programmes on the environment'.
SEA Statement:	<p>A statement summarising:</p> <ul style="list-style-type: none"> - how environmental considerations have been integrated into the P/P - how the ER, the opinions of the public and designated authorities, and the results of transboundary consultations have been taken into account - the reasons for choosing the P/P as adopted in the light of other reasonable alternatives.
Secondary effect:	Effects that are not a direct result of the P/P, same as indirect effect.



- Short-term effects:** These are typical of those effects that may occur during construction stage of a development, for example, the increased traffic going to and from a site during construction, or, the noise associated with construction activities.
- Significant effects:** Effects on the environment, including on issues such as biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above factors.
- Statutory authority:** The authority by which or on whose behalf the plan or programme is prepared.
- Statutory Instrument:** Any order, regulation, rule, scheme or bye-law made in exercise of a power conferred by statute.
- Synergistic effect:** Effects that, when totalled, result in a greater or lesser effect than the sum of the individual effects.
- Transboundary Consultation:** If a plan or programme is being prepared that is likely to have significant effects on the environment in another Member State, or where a Member State likely to be significantly affected so requests, the Member State in whose territory the plan or programme is being prepared shall, before the plan or programmes adoption or submission to the legislative procedure, forward a copy of the draft plan or programme and the relevant environmental report to the other Member State.
- Zone of Influence:** The area over which a plan can impact on the environment.



Introduction and Methodology

This Checklist has been prepared with the purpose of ensuring compliance with Directive 2001/42/EC “on the assessment of the effects of certain plans and programmes on the environment” (the SEA Directive).

The Checklist is designed to ensure compliance with the broad objective of the Directive set out in Article 1 by promoting full integration of SEA in the Plan / Programme (P/P) making process, and to promote best practice in the application of SEA across the various sectors covered by the scope of the Directive.

Article 1 –Objectives:

“The objective of this Directive is to provide for a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans and programmes with a view to promoting sustainable development, by ensuring that, in accordance with this Directive, an environmental assessment is carried out of certain plans and programmes which are likely to have significant effects on the environment.”

In addition, it is intended that the Checklist will also facilitate compliance with obligations placed on Member States by Article 12 (2) of the SEA Directive:

Article 12 Information, reporting and review

Article 12(2)

“Member States shall ensure that environmental reports are of sufficient quality to meet the requirements of this Directive and shall communicate to the Commission any measures they take concerning the quality of these reports”.

The Checklist is not a mandatory checklist. The intention is that the Checklist will be used as a companion to the Guidance produced by the Department of the Environment, Heritage and Local Government (DoEHLG)- (*Implementation of SEA Directive 2001/42/EC: Assessment of the Effects of Certain Plans and Programmes on the Environment – Guidelines for Regional Authorities and Planning Authorities*, November 2004) and the Environmental Protection Agency’s (EPA) - SEA Methodology (*ERTDI Report Series No. 18 –Development of Strategic Environmental Assessment (SEA) Methodologies for Plans and Programmes in Ireland Synthesis Report, 2003*).

The Checklist is not intended to be used as an end of line evaluation of the SEA process and associated Environmental Report. It is the intention that the Checklist will be used more as a quality assurance/control tool, which will guide SEA Practitioners and P/P makers during the SEA process, in the preparation of the Environmental Report and in integration of the findings of the Strategic Environmental Assessment (SEA) in the P/P.

Methodology

The SEA Process Checklist devised poses a set of questions, which form a checklist for SEA practitioners and P/P makers. The aims of the checklist are to help SEA practitioners and P/P makers to:

- (a) quickly identify if they have met with statutory obligations in undertaking an SEA and in the preparation of an Environmental Report, in accordance with the terms of the SEA Directive and Irish national legislation. This is addressed by a set of questions under the heading Minimum Requirements
- (b) provide clear guidance as to how the SEA process and the ER preparation processes can reflect best practice



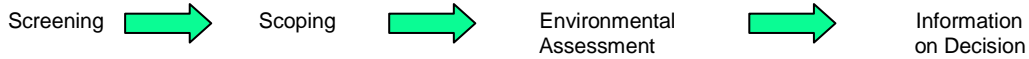
- (c) test by means of a set of additional discretionary tasks which recognise that good SEA practice needs to do far more than meet with minimum statutory requirements. The discretionary tasks are referred to as Additional Recommended Tasks in the checklist.

The minimum requirements in the SEA Process Checklist have been derived directly from the SEA Directive and the relevant national legislation i.e. the European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004, S.I. No. 435 of 2004 and the Planning and Development (Strategic Environmental Assessment) Regulations 2004, S.I. NO 436 of 2004. In almost all cases, the exact wording of the directive/national legislation has been used in the checklist in order not to attempt to 'second guess' either. However, in the case of a very small number of the questions posed, the precise wording has not been used but had been subject of minor re-wording. This has been done only when considered necessary for the purpose of clarity. The checklist also refers the user to the relevant corresponding part the SEA Directive. In the case of the requirement for "Appropriate Assessment" the relevant Article of the Habitats Directive is referred to.

In the case of the discretionary tasks, those tasks recommended in guidance on SEA prepared by the Irish Environmental Protection Agency (EPA) (2003) and the Department of the Environment, Heritage and Local Government (2004) were included in the checklist. These were supplemented by additional tasks derived from leading SEA research publications, from best practice currently being developed in the field of SEA, and from the Work Group's expertise. The team included a range of expertise in the areas of SEA practice, research and implementation.

For both mandatory and discretionary tasks a negative response to any of the questions posed should provide a prompt to the SEA Practitioner and P/P maker to address the particular task in question. Where appropriate, any actions undertaken to resolve non-compliance should be recorded in comments.

The Checklist was developed and refined in a series of meetings of the multi-disciplinary Work Group during 2007 and 2008. The various Draft versions of the Checklist were subsequently tested on a number of existing Environmental Reports and further refined where appropriate.



Consultation Draft January 2008

This Consultation Draft of the SEA Process Checklist was issued on Friday 18th January 2008 for a six week consultation period ending on 29th February 2008. The EPA and the SEA Process Work Group welcome any comments, observations and/or suggestions on this Consultation Draft of the Checklist.

Please forward any feedback you may have on the Draft Checklist by Friday February 29th to **Tadhg O'Mahony, SEA Section, Office of Environmental Assessment, Environmental Protection Agency, Regional Inspectorate, Inniscarra, and County Cork**. Comments can also be forwarded electronically to t.omahony@epa.ie quoting "**SEA Process Checklist**" in the Subject line.

It should be noted that the Checklist is a Process Checklist and the intention is that the Checklist is applied during the SEA Process. This should prompt any activities, required to be undertaken or information, required to be included, respectively, in the SEA Process and associated outputs. The "Checklist" should not be used solely as an end of process Checklist, though it can also serve this purpose.

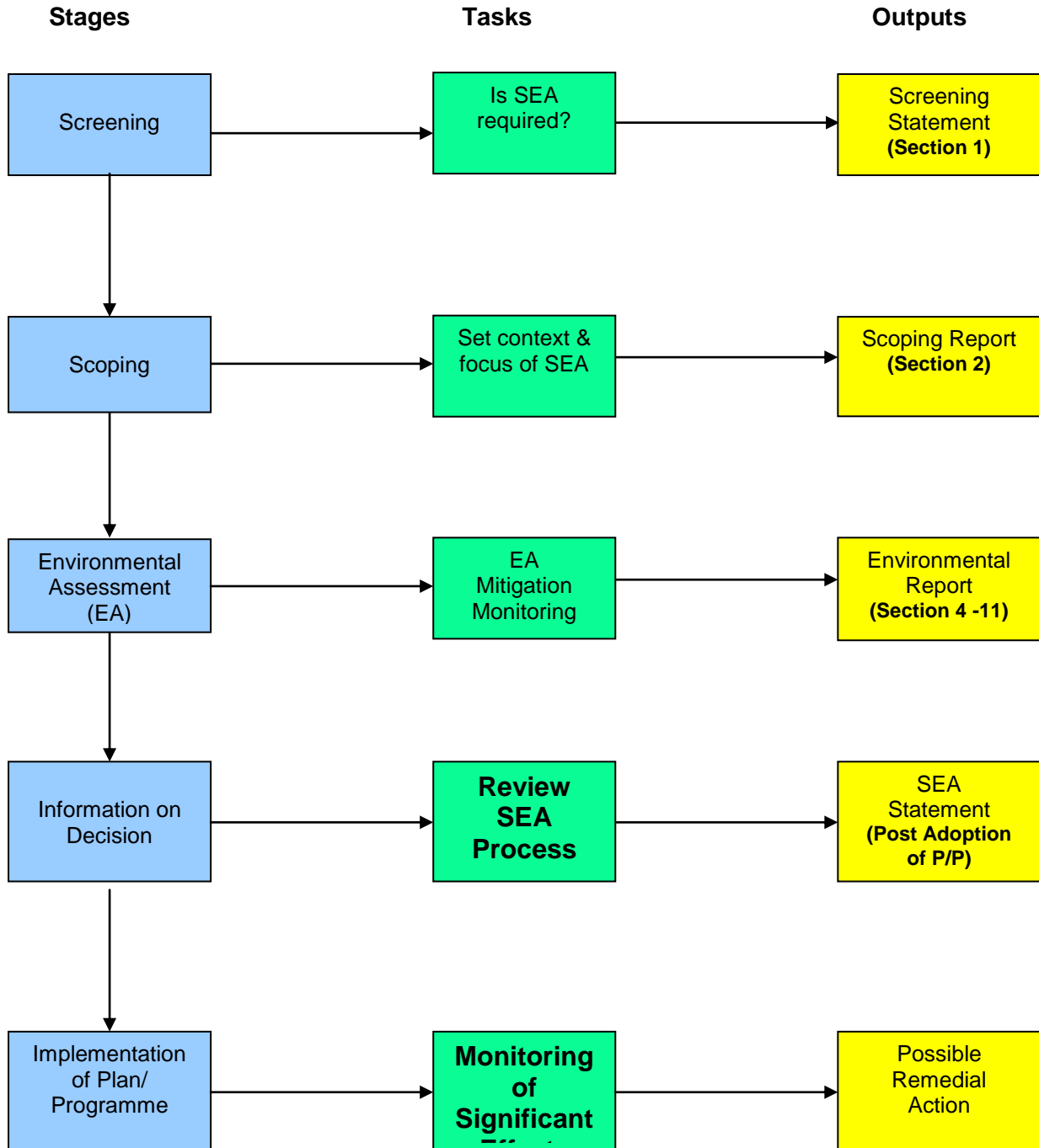
Next Stages

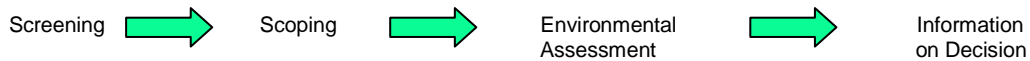
On receipt of feedback, the various comments will be collated and circulated within the SEA Work Group for consideration. The "Checklist" will then be updated and placed on the EPA 's Website as a Working Document. It is intended that the Checklist will be piloted formally on a number of key SEA 's being undertaken during 2008. Following review of the application of the Checklist" by Plan /Programme makers, SEA Practitioners, statutory and non statutory bodies and other interested parties the Checklist will be updated to reflect any feedback received.

Once finalised, the Checklist will be published on the EPA 's website and is also likely to made available as a paper copy. It should be noted that the Checklist will be an active document and will be updated on a regular basis.

The SEA Process: key Stages, Tasks and Outputs

The key Stages, Tasks and Outputs, which form the basis of the SEA Process and on which this SEA Process Checklist is based, are set out below.





SECTION 1 - SCREENING

Minimum Requirements

	Question	Yes, No, Comment	Statutory Basis
1.1	In reaching a determination of the requirement for SEA, have the criteria set out in Annex 1 of the SEA Directive and Schedule 2A of S.I. 436 or Schedule 1 of S.I. 435 been taken into account?		SEA Directive Article 3(6)/6(3) S.I. Nos 435 & 436 of 2004
1.2	Has a determination been made, in consultation with the DoEHLG, regarding the requirement for an appropriate assessment in accordance with the Habitats Directive?		Habitats Directive Article 6(3)
1.3	Has the relevant competent authority consulted the prescribed environmental authorities as required and notified them of its determination?		SEA Directive Article 3(6)/6(3) S.I. Nos 435 & 436 of 2004
1.4	Has the relevant statutory authority made available for public inspection a copy of its determination on the requirement for SEA?		S.I. Nos 435 & 436 of 2004

Additional Recommended Task

	Question	Yes, No, Comment	
1.5	Does the screening determination clearly state whether SEA is required or not, who has made the decision and when?		
1.6	If the P/P has been screened out of SEA, does it clearly demonstrate that it does not meet all/most of the criteria of Annex 1 and Schedule 2A of S.I. 436 and Schedule 1 of S.I. 435?		
1.7	Has a description been provided in the ER of the screening process and subsequent determination?		



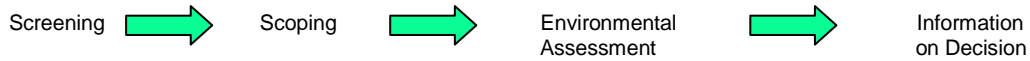
SECTION 2- SCOPING

Minimum Requirements

	Question	Yes, No, Comment	Statutory basis
2.1	Were the designated environmental authorities consulted when deciding on the scope of the information to be included in the Environmental Report?		SEA Directive Article 5 (4) S.I. Nos 435 & 436 of 2004

Additional Recommended Tasks

	Question	Yes, No, Comment	
2.2	Does the proposed scope of the report cover all the relevant information in accordance with Annex 1 of the SEA Directive and all of the points in Schedule 2 and Schedule 2B of S.I. 435 and S.I. 436? If not, have reasons for eliminating issues from further consideration been documented?		
2.3	Has informal preliminary scoping taken place with the designated authorities prior to the commencement of the P/P making process?		DoEHLG Guidelines S.3.14
2.4	Have scoping meetings/workshops been held with (a) any of the designated environmental authorities, (b) relevant internal departments within the organisation and (c) other relevant statutory and non-statutory organisations?		
2.5	Where appropriate, if the zone of influence extends beyond the plan boundary, has transboundary notification and consultation been undertaken with other Member States & adjoining authorities on the scope of the SEA?		
2.6	As part of the scoping exercise, have the designated authorities been given an outline of: a) the geographical area involved (including a referenced and scaled map of the area) b) the nature of the plan and its intended lifespan c) the likely scale, nature and location of development within the area during the life of the plan (in broad terms) d) the predicted significant effects of this development		DoEHLG Guidelines S.3.17
2.7	Has a Scoping Report been prepared which clearly highlights key environmental resources, zone of influence of the P/P, alternatives, key existing environmental issues/problems and likely significant environmental effects of the P/P?		DoEHLG Guidelines S.3.16



2.8	Does the scoping report reflect the size/level of detail in the P/P?		
2.9	Does the scoping report provide the designated authorities with sufficient information to form a view on the likely significant effects of implementation of the P/P?		
2.10	Has a Scoping Issues Paper (for land use plans) been prepared to facilitate consultation? Have the environmental issues raised in the Issues paper been appropriately addressed in the scoping report?		DoEHLG Guidelines S.3.14
2.11	Have the public and other interested bodies been identified and consulted at the scoping stage?		
2.12	Have the teams responsible for the preparation of the P/P and the ER been involved in the scoping exercise?		EPA Guidelines- Stage 2
2.13	Have the responses to the scoping exercises been included in the Scoping Report?		
2.14	Has the Scoping Report been made public?		
2.15	Where an appropriate assessment is required and will be undertaken in conjunction with the SEA, have any environmental problems, indicators or other issues relevant to the assessment been identified, that need to be considered during the SEA process?		Habitats Directive Article 6 NPWS Appropriate Assessment Guidelines



SECTION 3 – CONSULTATION

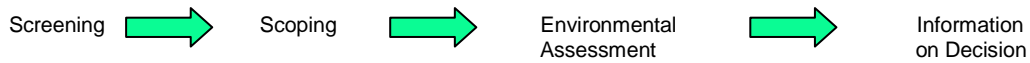
Consultation with Designated Authorities, Public, and, where applicable, International and National Transboundary Consultations

Minimum Requirements

	Question	Yes, No, Comment	Statutory Basis
3.1	Have the Draft P/P and accompanying ER been made available to the designated authorities and the public?		SEA Directive Article 6(1)/6(3) S.I. Nos 435 & 436 of 2004
3.2	Have the designated environmental authorities and the public been given an early and effective opportunity to express their opinion on the draft P/P and the accompanying ER?		SEA Directive Article 6(2)/6(4) S.I. Nos 435 & 436 of 2004
3.3	Have the ER and the opinions expressed by the designated authorities and the public during consultation been taken into account during the preparation of the P/P?		SEA Directive Article 8 S.I. Nos 435 & 436 of 2004
3.4	Where relevant, has a copy of the Draft P/P and the ER been forwarded to other Member States before its adoption?		SEA Directive Article 7 S.I. Nos 435 & 436 of 2004
3.5	Where relevant, have the Member States been given a reasonable time frame to respond to the draft P/P and ER?		
3.6	Have the opinions expressed by other Member States during transboundary consultation been taken into account?		SEA Directive Article 7 S.I. Nos 435 & 436 of 2004

Additional Recommended Tasks

	Question	Yes, No, Comment	
3.8	Has a description of the outcome of all consultations (including transboundary) been documented in the ER?		
3.9	Where a consultation recommendation has not been taken on board, has an explanation been provided of why?		
3.10	Have P/Ps and ERs for counties contiguous to the border with Northern Ireland been subject to transboundary consultation with the relevant Northern Ireland Environmental Authorities?		DoEHLG Guidelines S. 5.9
3.11	If the zone of influence of the P/P extends beyond the P/P boundary, have relevant statutory Bodies/Authorities and adjoining Local Authorities been informed and consulted?		DoEHLG Guidelines S. 5.9





SECTION 4 – PLAN DESCRIPTION

Minimum Requirements

	Question	Yes, No, Comment	Statutory Basis
4.1	Has an outline of the contents and the main objectives of the P/P been provided in the ER?		SEA Directive Article 5 Annex I (a)
4.2	Has information been provided on the relationship of the P/P with other relevant P/Ps?		SEA Directive Article 5 Annex I (a)

Additional Recommended Tasks

	Question	Yes, No, Comment	
4.3	Has a referenced and scaled map illustrating the geographical extend of the P/P area been included in the ER?		
4.4	Have any relevant conflicts and/or synergies between the P/P objectives and the objectives of other P/Ps in the hierarchy (including transboundary) been identified and described?		
4.5	Has the zone of influence of the P/P been described appropriately?		
4.6	Has the potential for transboundary effects of the plan been identified?		

Screening Scoping Environmental Assessment 


Information on Decision

SECTION 5 – EXISTING ENVIRONMENT

Minimum Requirements

	Question	Statutory Basis					
5.1	(a) Are the relevant aspects of the current state of the environment described? (b) Are any existing environmental problems described (in particular those relating to areas designated pursuant to the Birds and Habitats Directives)? (c) Are the environmental characteristics of areas that are likely to be significantly affected by the P/P identified? (d) Is the likely evolution of the existing environment without the implementation of the P/P described? (e) Have any significant gaps in the baseline data been identified? (f) Have alternative/proxy data sources been identified where existing baseline data is unavailable?	SEA Directive Article 5 Annex I (b), (c), (d)					
Environmental Receptor	(a)	(b)	(c)	(d)	(e)	(f)	Comment
Biodiversity, flora and fauna							
Water (surface, ground, estuarine and coastal)							
Soil							
Landscape							
Cultural Heritage (architectural and archaeological heritage)							
Population							
Human Health							
Air							
Climatic Factors							
Material Assets							
Interrelationships							
Other							

Yes: Y
No: N

Screening 

Scoping 

Environmental Assessment 

Information on Decision

	Question	Yes, No, Comment	Statutory Basis
5.2	Has a description been included of any difficulties (such as technical deficiencies or lack of know how) encountered in compiling the required information?		SEA Directive Article 5 Annex 1 (h) S.I. Nos 435 & 436 of 2004

Additional Recommended Tasks

	Question	Yes, No, Comment	
5.3	Does the relevant current state of the environment (baseline), as described, reflect: a) the availability of data? b) The size and level of detail of the P/P?		
5.4	Have trends for key environmental receptors been presented and described using appropriate environmental data?		
5.5	What sources of environmental data and/or environmental information systems (e.g. GIS) have been used?		
5.6	Have existing environmental problems relevant to the P/P been identified and put into the context of relevant environmental objectives, standards, thresholds etc.?		



SECTION 6 – OBJECTIVES, TARGETS AND INDICATORS

Note: See Appendix IV – Objectives, Targets and Indicators explanation

Minimum Requirements

	Question	Yes, No, Comment	Statutory Basis
6.1	Have any environmental protection objectives, established at International, European Community or Member State level which are relevant to the P/P been identified?		SEA Directive Article 5 Annex 1(e)
6.2	Have these objectives and any environmental considerations been taken into account (placed in context/linked into the P/P) during the preparation of the P/P?		SEA Directive Article 5 Annex 1(e)

Additional Recommended Tasks

	Question	Yes, No, Comment	
6.4	Are the proposed environmental objectives linked to appropriate targets and indicators?		
6.5	In relation to environmental targets; (a) have limits or thresholds been established where appropriate? (b) have timescales been set where appropriate?		
6.6	Are the environmental indicators capable of the following; <ul style="list-style-type: none"> describing trends in the baseline environment? demonstrating the likely significant environmental impact(s) of the implementation of the P/P? being used in a monitoring programme? providing an early warning of significant unforeseen adverse effects? prioritising key environmental impact(s)? is the number of environmental indicators manageable, in terms of time and resources? 		DoEHLG Guidelines S.4.13 S. 7.11 S.7.12



6.7	Have the environmental objectives been linked to targets and indicators for those environmental receptors identified as being significantly affected?			
Environmental Receptor	O	T	I	Comment*
Biodiversity, flora and fauna				
Water (surface, ground, estuarine and coastal)				
Soil				
Landscape				
Cultural Heritage (architectural and archaeological heritage)				
Population				
Human health				
Air				
Climatic factors				
Material assets				
Other				

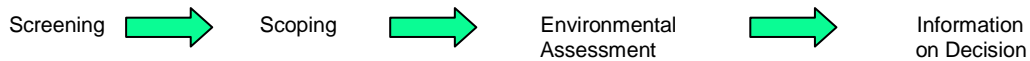
Yes: Y
No: N

Environmental objective (O): In SEA, objectives are broad, overarching principles which should specify a desired direction of change, for example, 'reduce air pollution' or 'improve human health'.

Environmental target (T): A target usually underpins an objective often having a time deadline that should be met and should be accompanied by limits or thresholds

Environmental indicator (I): Indicators are used to track the achievements of objectives and targets, describe the baseline situation, monitor the impact of the proposed plan or programme on the environment and monitor impacts

Proxy indicators: A measure of activity resulting from a P/P which provides information on environmental impact without the need for a direct measure of an environmental receptor



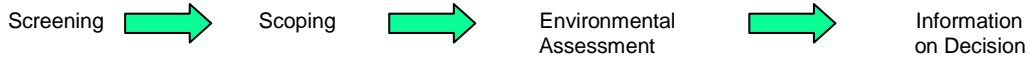
SECTION 7 – CONSIDERATION OF ALTERNATIVES

Minimum Requirements

	Question	Yes, No, Comment	Statutory Basis
7.1	Have 'reasonable alternatives' been identified and described?		SEA Directive Article 5 Annex 1 (h) S.I. Nos 435 & 436 of 2004
7.2	Have the reasons for selecting (a) the alternatives and (b) the preferred alternative been provided?		SEA Directive Article 5/ Article 9(1)b Annex 1 (h) S.I. Nos 435 & 436 of 2004
7.3	Has a description of how the assessment of alternatives was undertaken been provided?		SEA Directive Article 5 Annex 1 (h) S.I. Nos 435 & 436 of 2004

Additional Recommended Tasks

	Question	Yes, No, Comment	
7.4	Are the potential alternatives proposed assessed against the relevant environmental objectives and against each other?		(Modified IEMA)
7.5	Has a clear explanation been given of the likely significant environmental effects of each alternative?		
7.6	Has clear written justification been given for the choice of the preferred alternative?		
7.7	Do the alternatives considered reflect the objectives and hierarchy of the P/P?		




SECTION 8 – LIKELY SIGNIFICANT EFFECTS OF THE PLAN OR PROGRAMME

Minimum Requirements


Question		Statutory Basis									
8.1	Are the likely significant effects on the environment described?	SEA Directive Article 5 Annex I (f) S.I. Nos 435 & 436 of 2004									
Environmental Receptor	S	M	L	P	T	Sec	Cm	Sy	+	-	Comment
Biodiversity, flora and fauna											
Water (surface, ground, estuarine and coastal)											
Soil											
Landscape											
Cultural Heritage (architectural and archaeological heritage)											
Population											
Human Health											
Air											
Climatic factors											
Material Assets											
Interrelationships											
Other											

Note:

S	Short -term effects
M	Medium-term effects
L	Long-term effects
P	Permanent effects
T	Temporary effects
Sec	Secondary effects
Cm	Cumulative effects
Sy	Synergistic effects
+:	Positive effects
-:	Negative effects

Screening 

Scoping 

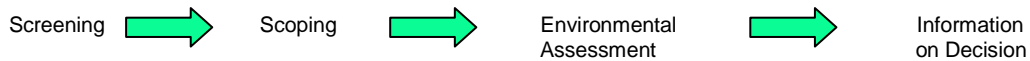
Environmental Assessment 

Information on Decision



Additional Recommended Tasks

	Question	Yes, No, Comment	
8.2	Are significant effects described in relation to: - current environmental conditions - relevant environmental standards and thresholds		
8.3	Are appropriate impact prediction methods used, and, are impacts quantified where relevant?		
8.4	Have the methods used for impact prediction been described?		



SECTION 9 – MITIGATION MEASURES

Minimum Requirements

	Question	Yes, No, Comment	Statutory Basis
9.1	Have mitigation measures been proposed for all significant adverse effects on the environment of implementing the P/P?		SEA Directive Article 5 Annex I (g)

Additional Recommended Tasks

	Question	Yes, No, Comment	
9.2	Have the proposed mitigation measures been incorporated into the P/P?		
9.3	Have the proposed mitigation measures been linked, where appropriate, to specific relevant significant environmental effects?		
9.4	Has an explanation been provided where mitigation of significant adverse effects is not proposed?		
9.5	Are the mitigation measures proposed within the remit of the statutory authority? If not, is there reasonable certainty that they will be implemented?		
9.6	Do the proposed mitigation measures have potential to fully avoid or mitigate the relevant impact(s)? If not, have additional measures been considered?		
9.7	Is a description provided of any likely post-mitigation residual impacts included?		
9.8	If the appropriate assessment shows that the P/P would have a significant impact on the integrity of a Natura 2000 site, has the statutory authority considered further alternatives to try to avoid these impacts?		


SECTION 10 – MONITORING PROGRAMME

Minimum Requirements

	Question	Yes, No, Comment	Statutory Basis
10.1	Has a monitoring programme of significant environmental effects of implementing the P/P been described?		SEA Directive Article 10 Annex 1 (i) S.I. Nos 435 & 436 of 2004
10.2	Does the monitoring programme allow unforeseen adverse effects to be identified, for instance, where assumptions underpinning the ER's impact predictions may not come true in practice?		SEA Directive Article 10(1) Annex 1 (i) S.I. Nos 435 & 436 of 2004
10.3	Have thresholds / trigger levels been assigned which will determine the need for appropriate remedial action?		SEA Directive Article 10(1) Annex 1 (i) S.I. Nos 435 & 436 of 2004

Additional Recommended Tasks

	Question	Yes, No, Comment	
10.4	Are responsibilities for carrying out the monitoring programme clearly defined?		DoEHLG Guidelines S. 7.7
10.5	Are responsibilities for responding to any significant negative environmental effects of implementation of the P/P clearly defined?		
10.6	Are responsibilities for identifying and responding to unforeseen adverse effects of implementation of the P/P clearly defined?		
10.7	Has the frequency of monitoring been specified in the monitoring programme?		
10.8	Has the frequency of reporting on the results of the monitoring programme been specified?		
10.9	Does the monitoring programme address significant gaps identified in the baseline data?		DoEHLG Guidelines S. 7.4
10.10	Does the monitoring programme utilise existing monitoring arrangements where appropriate?		

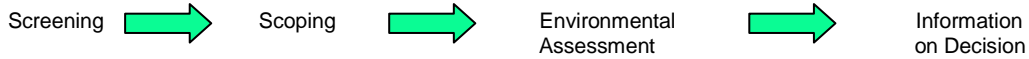
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Scoping 

Environmental Assessment 

Information on Decision

10.11	Does the monitoring programme include provision for the ongoing review of environmental targets and indicators?		
10.12	Has provision been made to produce regular monitoring reports during the time period of the P/P?		
10.13	Does the monitoring programme address transboundary effects, if any?		
10.14	What provisions are there to make the results and interpretation of the monitoring programme available to the designated environmental authorities and the public?		





SECTION 11 – ENVIRONMENTAL REPORT AND NON-TECHNICAL SUMMARY


Note: This section provides an overview of the compliance of the ER with the requirements of the SEA Directive and the SEA Regulations. Where non-compliance has been highlighted in previous sections of the SEA Process Checklist, actions taken to resolve non-compliance should be highlighted in the 'Comment' section.

Minimum Requirements

	Question	Yes, No, Comment	Statutory Basis
11.1	Does the ER contain all of the aspects listed in Annex 1 of the SEA Directive and Schedule 2 and 2B of S.I. 435 and 436 of 2004?		SEA Directive Article 5 Annex 1 S.I. Nos 435 & 436 of 2004
11.2	Does the ER include a non-technical summary?		SEA Directive Article 5 Annex I (j) S.I. Nos 435 & 436 of 2004
11.3	Does the non-technical summary clearly summarise the following:		SEA Directive Article 5 Annex I (j) S.I. Nos 435 & 436 of 2004
		Y/N	Comment
	a) Contents and main objectives of the draft P/P		
	b) Current state of the environment and evolution		
	c) Environmental characteristics of area significantly affected		
	d) Existing environmental problems		
	e) Environmental protection objectives		
	f) Significant effects on the environment		
	g) Mitigation measures		
	h) Alternatives		
	i) Monitoring		

Screening 

Scoping 


Environmental Assessment 

Information on Decision




Additional Recommended Tasks

	Question	Yes, No, Comment	
11.4	Has a description been provided in the ER of the screening process and subsequent determination?		
11.5	Have the responses to the scoping exercises been included in the ER? Has an explanation been given as to how these responses were considered?		
11.6	Is the non-technical summary concise and easy to understand?		DoEHLG Guidelines S. 4.41
11.7	Has a description of the outcome of all consultations (including transboundary) been documented in the ER?		
11.8	Have relevant references, glossary of terms and scaled maps (with source identified) been included?		

Screening 

Scoping 

Environmental Assessment 

Information on Decision



POST P/P ADOPTION

INFORMATION ON THE DECISION (SEA STATEMENT)

Minimum Requirements

	Question	Yes, No, Comment	Statutory basis
12.1	Has an SEA Statement, providing information on the decision, been made available, alongside the adopted P/P, to the designated authorities and the public?		SEA Directive Article 9 (1)
12.2	Where transboundary consultations took place, has the SEA statement been sent to the relevant statutory environmental authorities and the relevant Member States?		SEA Directive Article 9 (1)
12.3	Does the SEA Statement summarise:		SEA Directive Article 9 (1)(b) DoEHLG Guidelines S. 6.5
	(a) how environmental considerations (including environmental objectives) have been integrated into the P/P?		
	(b) how the ER & outcome of consultations have been taken into account in the P/P?		
	(c) the reason for choosing the P/P as adopted in the light of other reasonable alternatives considered?		
	(d) the measures put in place to monitor (and mitigate) the significant environmental impacts of implementing the P/P?		



**POST P/P ADOPTION
QUALITY AND INTEGRATION WITH THE P/P**

Minimum Requirements

	Question	Yes, No, Comment	Statutory basis
13.1	Have environmental considerations been integrated in the P/P preparation and adoption?		SEA Directive Article 1
13.2	Is the Environmental Report of sufficient quality to meet the requirements of the SEA Directive?		SEA Directive Article 12 (2)

Additional Recommended Task

	Question	Yes, No, Comment	Statutory Basis
13.3	Is the ER well presented and laid out in a logical sequence?		
13.4	Does the ER make effective use of maps, tables, figures, etc.		
13.5	Has the integration of the P/P making process and the SEA process been documented, including key stages and decisions?		
13.6	Has a description been provided in the ER of the screening process and subsequent determination?		
13.7	Have the key decision-makers been informed of: (a) the requirement for and purpose of environmental assessment? (b) the responsibilities of the plan making authority in the context of SEA? (c) the intended outputs of the SEA process?		
13.8	Has a summary of the key outcomes of the environmental assessment been provided?		
13.9	Does the non-technical summary summarise the main findings of the environmental assessment and how they influence the plan?		DoEHLG Guidelines S. 4.41

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SEA CONSULTATION BODIES / ENVIRONMENTAL AUTHORITIES

Ireland

Environmental Protection Agency (EPA) – Ireland

<http://www.epa.ie/TechnicalGuidanceandAdvice/StrategicEnvironmentalAssessment/>

Department of Environment, Heritage and Local Government

<http://www.environ.ie/en/DevelopmentandHousing/PlanningDevelopment/EnvironmentalAssessment/>

Department of Communications, Marine and Natural Resources

<http://www.dcmnr.gov.ie/Marine/Environmental+Assessment/Environmental+Assessment.htm>

England

Environment Agency

http://www.environment-agency.gov.uk/aboutus/512398/1504325/835367/?version=1&lang=_e&lang=_e

Natural England

<http://www.countryside.gov.uk/LAR/Landscape/PP/planning/SEA.asp>

English Heritage

<http://www.english-heritage.org.uk/server/show/nav.1477>

Standards of Service in SEA for the Above

http://www.environment-agency.gov.uk/commdata/acrobat/sea_sos_eng_1705376.pdf?lang=_e

Scotland

Scottish Environmental protection Agency (SEPA)

<http://www.sepa.org.uk/index.html>

Historic Scotland

<http://www.historic-scotland.gov.uk/index/policyandguidance/sea.htm>

Scottish Natural Heritage

<http://www.snh.org.uk/>

Wales

Environment Agency (Wales)

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Countryside Council for Wales

<http://www.ccw.gov.uk/>

CADW

<http://www.cadw.wales.gov.uk/default.asp>

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<http://www.irishstatutebook.ie/2004/en/si/0435.html>

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Northern Ireland

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England

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Scotland

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Wales

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<http://www.opsi.gov.uk/legislation/wales/wsi2004/20041656e.htm>

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Scott Wilson, Levett-Therivel Sustainability Consultants, Treweek Environmental Consultants and Land Use Consultants, 2006. *Appropriate assessment of plans*
<http://www.landuse.co.uk/Downloads/AppropriateAG.pdf>

Biodiversity Specific Guidance

Scottish Natural Heritage, 2006. *Guidance for competent authorities when dealing with proposals affecting SAC freshwater sites*
<http://www.snh.org.uk/pdfs/publications/heritagemanagement/guidanceforcompetentauthorities.pdf>

DEFRA, UK Biodiversity, 2007. *Conserving biodiversity in a changing climate: Guidance on building capacity to adapt*
<http://www.ukbap.org.uk/library/brig/BRIGGuidanceWebpdf.pdf>

PENDING GUIDANCE

SEA and Health – due for publication from the Department for Health

CCW is producing numerous guidance documents for environmental issues in Wales

RSPB is producing a SEA case studies document

USEFUL WEB-SITES

SEA

Europe

European Community home page for environmental assessment: includes legal context for both EIA and SEA

www.europa.eu.int/comm/environment/eia/home.htm

Ireland

Environmental Protection Agency (EPA) - Ireland

<http://www.epa.ie/TechnicalGuidanceandAdvice/StrategicEnvironmentalAssessment/>

Department of Environment, Heritage and Local Government

<http://www.environ.ie/en/DevelopmentandHousing/PlanningDevelopment/EnvironmentalAssessment/>

Department of Communications, Marine and Natural Resources

<http://www.dcmnr.gov.ie/Marine/Environmental+Assessment/Environmental+Assessment.htm>

UK

Communities and Local Government: Information about Communities and Local Government's ministerial team, the Board and our agencies and non-departmental public bodies

<http://www.communities.gov.uk/planningandbuilding/planning/sustainabilityenvironmental/strategicenvironmentalassessment/>

Environment Agency (England and Wales) – SEA - The website:

<http://www.environment-agency.gov.uk/aboutus/512398/1504325/>

Strategic Environmental Assessment Information Service

<http://www.sea-info.net/>

Levett and Therivel Website

<http://www.levett-therivel.fsworld.co.uk/>

Scottish Executive SEA Page

<http://www.scotland.gov.uk/Topics/Environment/14587>

Biodiversity

European Agencies

European Commission

http://ec.europa.eu/environment/nature/index_en.htm

<http://europa.eu/scadplus/leg/en/s15006.htm>

European Environment Agency

<http://www.eea.europa.eu/themes/biodiversity>

Irish Agencies

Department of the Environment, Heritage and Local Government - The National Parks & Wildlife Service

<http://www.environ.ie/en/Heritage/NationalParksandWildlife/>

UK Government Departments and Agencies

Environment and Heritage Service (NI): statutory body advising on biodiversity (etc) in Northern Ireland

<http://www.ehsni.gov.uk/biodiversity.htm>

Natural England works for people, places and nature to conserve and enhance biodiversity, landscapes and wildlife in rural, urban, coastal and marine areas.

<http://www.naturalengland.org.uk/conservation/default.htm#>

Department of the Environment, Food and Rural Affairs

www.defra.gov.uk

Joint Nature Conservancy Committee. Advisory committee to the Government on nature conservation

www.jncc.org.uk

Scottish Environmental Protection Agency (SEPA).

www.sepa.org.uk

Scottish Natural Heritage: statutory body advising on biodiversity (etc) in Scotland

www.snh.org.uk

Environment Agency, responsible for water, fisheries and waste regulation in England and Wales

www.environment-agency.gov.uk/yourenv

Environment Agency (Wales)

<http://www.environment-agency.gov.uk/regions/wales/>

Countryside Council for Wales (CCW) – statutory body advising on biodiversity (etc) in Wales

<http://www.ccw.gov.uk/>

CASE STUDY EXAMPLES TO FOLLOW

Appendix I – Annex I of the SEA Directive (2001/42/EC)

ANNEX I

Information referred to in Article 5(1)

The information to be provided under Article 5(1), subject to Article 5(2) and (3), is the following:

- (a) an outline of the contents, main objectives of the plan or programme and relationship with other relevant plans and programmes;
- (b) the relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme;
- (c) the environmental characteristics of areas likely to be significantly affected;
- (d) any existing environmental problems which are relevant to the plan or programme including, in particular, those relating to any areas of a particular environmental importance, such as areas designated pursuant to Directives 79/409/EEC and 92/43/EEC;
- (e) the environmental protection objectives, established at international, Community or Member State level, which are relevant to the plan or programme and the way those objectives and any environmental considerations have been taken into account during its preparation;
- (f) the likely significant effects ⁽¹⁾ on the environment, including on issues such as biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above factors;
- (g) the measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan or programme;
- (h) an outline of the reasons for selecting the alternatives dealt with, and a description of how the assessment was undertaken including any difficulties (such as technical deficiencies or lack of know-how) encountered in compiling the required information;
- (i) a description of the measures envisaged concerning monitoring in accordance with Article 10;
- (j) a non-technical summary of the information provided under the above headings.

Appendix II – Schedules 1 and 2 of S.I. No. 435 of 2004

SCHEDULE 1

CRITERIA FOR DETERMINING WHETHER A PLAN OR PROGRAMME (OR MODIFICATION THERETO) IS LIKELY TO HAVE SIGNIFICANT EFFECTS ON THE ENVIRONMENT

1. The characteristics of the plan or programme, or modification to a plan or programme, having regard, in particular, to
 - the degree to which the plan or programme, or modification to a plan or programme, sets a framework for projects and other activities, either with regard to the location, nature, size and operating conditions or by allocating resources,
 - the degree to which the plan or programme, or modification to a plan or programme, influences other plans including those in a hierarchy,
 - the relevance of the plan or programme, or modification to a plan or programme, for the integration of environmental considerations in particular with a view to promoting sustainable development,
 - environmental problems relevant to the plan or programme, or modification to a plan or programme,
 - the relevance of the plan or programme, or modification to a plan or programme, for the implementation of European Union legislation on the environment (e.g. plans and programmes linked to waste-management or water protection).
2. Characteristics of the effects and of the area likely to be affected, having regard, in particular, to
 - the probability, duration, frequency and reversibility of the effects,
 - the cumulative nature of the effects,
 - the transboundary nature of the effects,
 - the risks to human health or the environment (e.g. due to accidents),
 - the magnitude and spatial extent of the effects (geographical area and size of the population likely to be affected),
 - the value and vulnerability of the area likely to be affected due to:
 - a) special natural characteristics or cultural heritage,

- b) exceeded environmental quality standards or limit values,
 - c) intensive land-use,
- the effects on areas or landscapes which have a recognised national, European Union or international protection status.

SCHEDULE 2

INFORMATION TO BE CONTAINED IN AN ENVIRONMENTAL REPORT

The following information shall be contained in an environmental report -

- (a) An outline of the contents and main objectives of the plan or programme, or modification to a plan or programme, and relationship with other relevant plans or programmes;
- (b) the relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme, or modification to a plan or programme,
- (c) the environmental characteristics of areas likely to be significantly affected;
- (d) any existing environmental problems which are relevant to the plan or programme, or modification to a plan or programme, including, in particular, those relating to any areas of a particular environmental importance, such as areas designated pursuant to the Birds Directive or the Habitats Directive;
- (e) the environmental protection objectives, established at international, European Union or national level, which are relevant to the plan or programme, or modification to a plan or programme, and the way those objectives and any environmental considerations have been taken into account during its preparation;
- (f) the likely significant effects¹ on the environment, including on issues such as biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above factors;
- (g) the measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan or programme, or modification to a plan or programme;
- (h) an outline of the reasons for selecting the alternatives dealt with, and a description of how the assessment was undertaken including any difficulties (such as technical deficiencies or lack of know-how) encountered in compiling the required information;

¹ These effects should include secondary, cumulative, synergistic, short, medium and long-term, permanent and temporary, positive and negative effects.

- (i) a description of the measures envisaged concerning monitoring of the significant environmental effects of implementation of the plan or programme, or modification to a plan or programme;
- (j) a non-technical summary of the information provided under the above headings.

Appendix III – Schedule 2B of S.I. No. 436 of 2004

SCHEDULE 2B

INFORMATION TO BE CONTAINED IN AN ENVIRONMENTAL REPORT

Articles 13E, 13N, 14D, 15D and 179C

The following information shall be included in an environmental report –

- an outline of the contents and main objectives of the plan and relationship with other relevant plans;
 - the relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan;
 - the environmental characteristics of areas likely to be significantly affected;
 - any existing environmental problems which are relevant to the plan including, in particular, those relating to any areas of a particular environmental importance, such as areas designated pursuant to the Birds Directive or Habitats Directive;
- (e) the environmental protection objectives, established at international, European Union or national level, which are relevant to the plan and the way those objectives and any environmental considerations have been taken into account during its preparation;
- (f) the likely significant effects² on the environment, including on issues such as biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above factors;
- (g) the measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan;
- (h) an outline of the reasons for selecting the alternatives dealt with, and a description of how the assessment was undertaken including any difficulties (such as technical deficiencies or lack of know-how) encountered in compiling the required information;

¹ These effects should include secondary, cumulative, synergistic, short, medium and long-term, permanent and temporary, positive and negative effects.

- (i) a description of the measures envisaged concerning monitoring of the significant environmental effects of implementation of the plan;
- (j) a non-technical summary of the information provided under the above headings.”

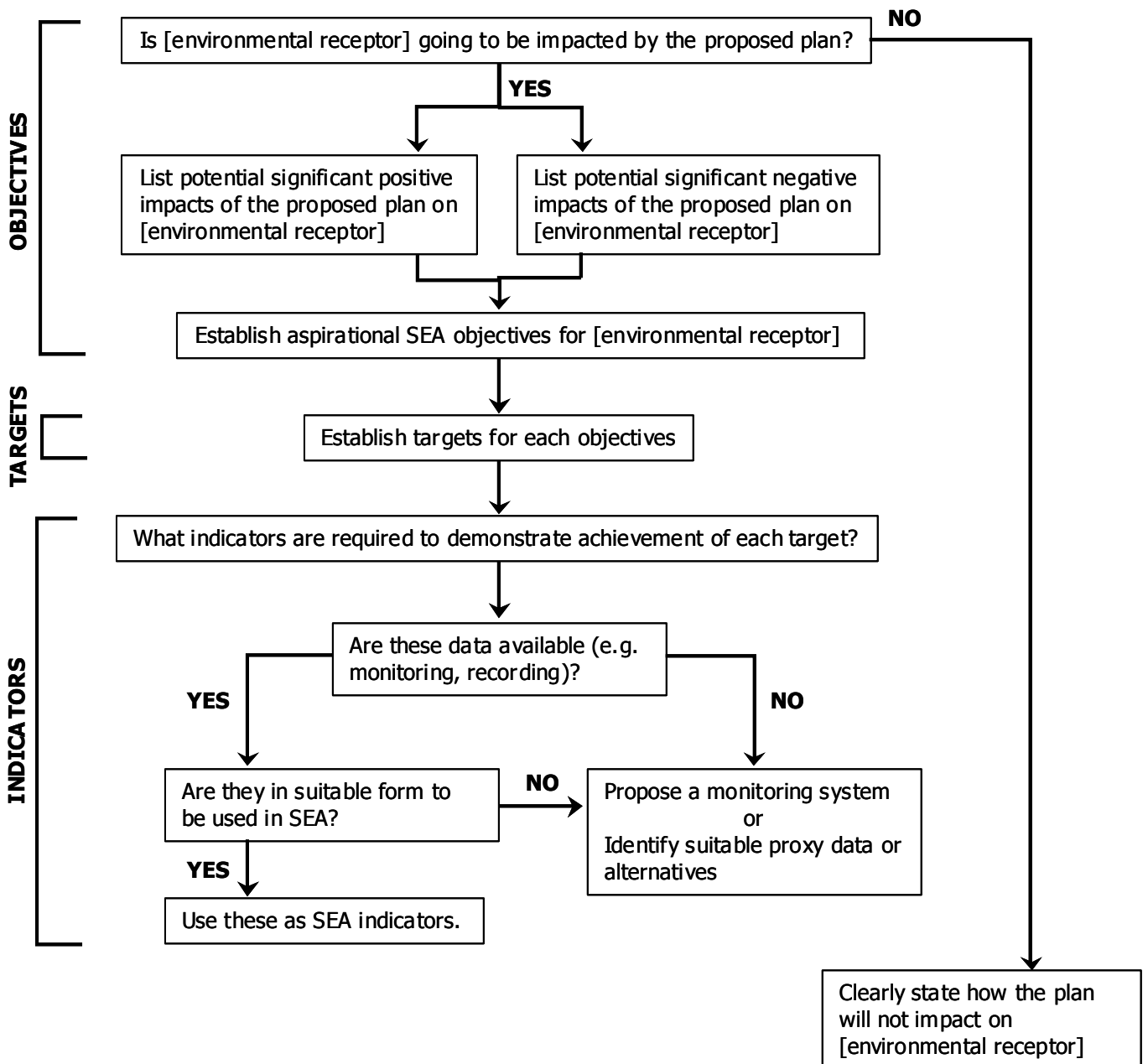
Appendix IV – Objectives, Targets and Indicators Explanation

In order to clearly determine the environmental impact (positive or negative) of a proposed plan or programme environmental objectives, targets and indicators need to be established. Table 1 gives examples of typical environmental objectives, targets and indicators for use in SEA. Objectives and targets set aims and thresholds which should be taken into consideration to effectively assess the impact of proposed plans on the environment. Indicators are used to illustrate and communicate this environmental impact in a simple and effective manner. A detailed explanation of the use of objectives, targets and indicators in the SEA process is available in Thérivel (2004) and Donnelly et al., (2006a&b). In brief, objectives are established for each environmental receptor listed in the SEA Directive which express the desired direction of change (Table 1). These objectives have associated targets which set stringent thresholds and limits, which once breached, would trigger remedial action. Finally, indicators are used to track the achievements of objectives and targets, describe the baseline situation, monitor the impact of the proposed plan or programme on the environment and predict impacts (Thérivel, 2004).

Table 1 Examples of environmental objectives, targets and indicators in SEA.

Objectives - specify the desired direction of change	Improve biodiversity Improve air quality Improve surface water quality Reduce greenhouse gas (GHG) emissions
Targets - are more focused	Increase the area designated for conservation by X% by 2020 10% of commuters to move from road to rail transport by 2020 All waste water to receive tertiary treatment by 2020 15% of dwellings to use a renewable energy source by 2020
Indicators - measure progress towards targets	% land area designated for conservation % of commuters using train/car % of waste water receiving tertiary treatment % of dwellings using different energy supplies
Proxy Indicators	A of activity resulting from a P/P which provides information on environmental impact without the need for a direct measure of an environmental receptor. For example, an increase in the number of vehicles (activity resulting from a P/P) can provide information on the impact on air quality and greenhouse gases without having to measure the concentration of these parameters in the receiving environmental receptor

Appendix V – Methodology for establishing environmental objectives, targets and indicators



Decision support framework for establishing, objectives, targets and indicators for use in SEA. **Donnelly, A.**, Jones, M.B., O'Mahony, T. and Byrne, G. (2006) Decision support framework for establishing objectives, targets and indicators for use in SEA. *Impact Assessment and Project Appraisal* 24: 151-157.



ENVIRONMENTAL PROTECTION AGENCY

STRATEGIC ENVIRONMENTAL ASSESSMENT

DRINKING WATER
RECOMMENDATIONS

The Provision and Quality of Drinking Water in Ireland
A Report for the Years 2007-2008
Office of Environment Enforcement- EPA, 2009

5 FINDINGS AND RECOMMENDATIONS

5.1 The Quality of Drinking Water

5.1.1 Public Water Supplies

Recommendations

- Local authorities should review all E. coli exceedances reported in public water supplies to ensure that the root cause of the non-compliance is rectified. As a minimum this should include a review of the disinfection contact time to ensure that World Health Organisation guidelines are being met, the operation of monitors and alarms to control the disinfection process, and a review of dosing arrangements and integrity of the distribution system.
- Local authorities with supplies on the Remedial Action List, need to develop an appropriate solution with specified timeframes that will involve abandoning or replacing the source, upgrading the treatment facilities or improving management and operational practices.
- Local authorities should ensure that each exceedance of the parametric values is investigated and notified to the EPA as outlined in the Guidance Booklet No.1 published by the EPA. Actions taken to address the cause of the non-compliance must include actions to prevent the exceedance occurring in the future.
- Local authorities must prepare action programmes to deal with the exceedances of the trihalomethane parametric values having regard to the more stringent standard which came into force on 25 December 2008. Disinfection should not be compromised in attempting to control disinfection by-products.
- Local authorities should annually carry out the Cryptosporidium risk assessment and, if a supply has been identified as high risk, then the local authority should take action to reduce the risk. Furthermore, local authorities must review operations of all other plants to ensure that the turbidity levels are below the target level of 0.2 NTU.
- Local authorities should carry out a lead survey to determine the extent of lead piping in the distribution network. Local authorities should replace all lead distribution mains in public water supplies and the EPA recommends that local authorities put in place a phased programme for the replacement of lead service connections. Consumers should be advised of the actions they can take if exceedances are caused by internal lead plumbing.
- Local authorities should install continuous turbidity monitors on each filter and the final treated water at water treatment plants. These monitors should be linked to a recording device and alarm in the event of a deviation from the acceptable operating range of the filters.
- Local authorities should ensure that fluoridation is carried out in accordance with the Code of Practice for Fluoridation of Water Supplies and that levels in the final waters do not exceed 0.8 mg/l.
- Local authorities should respond positively to all complaints received by members of the public in relation to the organoleptic quality of drinking water and should strive to reduce these exceedances as much as possible. Records should be kept of

all responses to complaints about poor quality drinking water.

5.1.2 Group Water Schemes

Recommendations

- Local authorities should ensure that each group water scheme (public or private), has an action programme prepared to address microbiological exceedances where they exist. Local authorities should particularly focus on the private group water schemes that are not being upgraded as part of a planned Design Build Operate (DBO) bundle. Where a group water scheme has not prepared a corrective action programme in accordance with the requirements of Regulation 10 of the Regulations and where there is little evidence of action being taken to improve the quality of the water supply, the local authority should use enforcement powers under the 2007 Regulations to bring the supply into compliance.
- Operators of private group water schemes in breach of the nitrate parametric value should investigate the cause of the exceedance and take the necessary steps to reduce the levels of nitrate in the water supply.
- Operators of public group water schemes should ensure that the distribution networks are regularly cleaned and maintained to ensure that the quality of the water supplied by the local authority does not deteriorate in the group water schemes distribution network.

5.1.3 Small Private Supplies

Recommendations

- Owners of small private supplies that supply water (serving <50 persons or <10m³/day) as part of a public or commercial activity must be identified by the local authority and the owners made aware of the obligation to meet the quality requirements of the Regulations.

5.2 Monitoring

Recommendations

Local authorities should develop/review their documented monitoring programme to ensure that:

- All public water supplies and group water schemes covered by the Regulations have individual monitoring programmes established for each supply, that, as a minimum, meets the frequencies specified in the Drinking Water Regulations.
- Where audit sampling is to be carried out the local authority should ensure that all parameters in the audit group of parameters are analysed unless the local authority can satisfy the requirements of Section 2 of Table A of Part 2 of the Schedule of the Regulations with regard to the removal of certain parameters from the monitoring programme.

- A survey should be carried out (in consultation with the local Health Service Executive) to identify all private supplies that supply water as part of a public or commercial activity. Such supplies should be included in the monitoring programme and the monitoring frequencies for such supplies specified

5.3 Safe and Secure Drinking Water

Recommendations

- All local authorities should install a continuous chlorine residual monitor at all treatment plants and monitors should be alarmed and linked to a recording device. This will ensure that either a sudden increase in chlorine demand or a failure of the chlorine dosing system is immediately detected. The aim of such alarms is to ensure that corrective action is initiated as quickly as possible to prevent undisinfected water entering the distribution mains.
- Local authorities should adopt the World Health Organisation recommended water safety plan approach to the management of drinking water supplies. The three components of a water safety plan which should be adopted are (i) risk assessment; (ii) effective operational monitoring and (iii) effective management. The adoption of this approach will ensure the safety and security of water supplies from catchment to consumer.
- All local authorities should develop a documented protocol for dealing with exceedances of the microbiological, chemical and indicator parametric values. Local authorities should develop this protocol in conjunction with the Health Service Executive and should ensure that it is regularly reviewed to ensure it meets the requirements of the 2007 Regulations and that it accurately reflects the up to date situation. In this regard, the EPA should be notified of any failures to meet the standards in accordance with the EPA Guidance Booklet No.1.
- The source of each water supply needs to be characterised on an ongoing basis to ensure that the water supplier is aware of the characteristics of the water to be treated.
- Process control at water treatment plants needs to improve. In this regard, online monitoring of the raw, filtered and treated water should be carried out as appropriate. This will ensure that risks to the quality of the treated water are identified as soon as possible and corrective action taken before the water is supplied to consumers.
- A documented management system should be used to manage drinking water supplies, and the performance management system developed by the Department of Environment, Heritage and Local Government should be used by all local authorities.
- Local authorities and all other water suppliers should regularly examine chemicals used in water treatment to ensure that they are not contributing to non-compliances and are fit for purpose. Only treatment chemicals that are approved for use in drinking water treatment should be used. The EPA recommends that only chemicals with appropriate Irish standards for use in drinking water treatment (e.g. NSAI) or chemicals on the Drinking Water

Inspectorate of England and Wales' list of approved products and processes (or other appropriate list) are used for drinking water treatment in Ireland.

- All drinking water operators should undergo appropriate training in the provision of drinking water supplies such as that delivered by the Water Service National Training Group (www.wsntg.ie). As a minimum, each operator should be trained for each treatment process for which they are required to operate at the plant.
- Group water schemes should obtain certification under the Hazard Analysis Critical Control Points (HACCP) system adopted by the National Federation of Group Water Schemes. Where the quality model adopted by the NFGWS is not in place, those responsible for the group water scheme should prepare a protocol in order to reduce the risk of an unsafe drinking water supply.
- All local authorities should review chemical storage arrangements at treatment plants. Chemicals must be stored in bunded areas capable of containing at least 110% of the volume of chemicals stored therein. Fill points for storage tanks inside the bunds should be located within the bunded area.

5.4 Reporting and Communication

Recommendations

- Drinking water results should be made more accessible to the public by the local authority. In this regard the EPA recommends that local authorities post up-to-date results of their monitoring on their websites on a regular basis. Progress in upgrading supplies on the Remedial Action List should also be published on local authority websites to keep consumers informed of actions being taken to improve the quality of drinking water.



ENVIRONMENTAL PROTECTION AGENCY

STRATEGIC ENVIRONMENTAL ASSESSMENT

**URBAN WASTE WATER
DISCHARGES RECOMMENDATIONS**

*Urban Waste Water Discharges in Ireland for Population Equivalents Greater than
500 Persons*

*A Report for the Years 2006 and 2007
Environmental Protection Agency*

4 Recommendations

4.1 Level of Treatment Provided

1. The provision of secondary treatment for the twenty four⁶ agglomerations that did not have the required level of treatment at the end of the reporting period should be progressed as a matter of priority. Highest priority should be given to those where serious pollution is occurring.
2. The discharge of untreated waste water to the aquatic environment should become a practice of the past and local authorities should provide appropriate treatment at the 112 locations identified where waste water is being discharged with either no treatment or just basic treatment.

4.2 Treatment Plant Operation

3. Local authorities should review the operation of all urban waste water treatment plants in their functional areas including those below 500 p.e. Corrective action programmes should be developed and implemented for those plants that are failing to meet the effluent quality standards set by the Regulations. Particular priority should be placed on correcting plants whose discharges are causing environmental pollution in the waters to which the effluents discharge. Local authorities need to improve their management and operation of waste water treatment plants in order to prevent water pollution and the health risks associated with the discharge of untreated or poorly treated sewage.
4. Local authorities should invest in the training and re-training of plant operators in order to improve the management and operation of waste water treatment plants.
5. The frequency and volume of storm overflows within each collecting system should be assessed, mapped and ranked in order of polluting potential.
6. Local authorities should determine whether all trade effluent discharges are appropriately licenced and the licences should have requirements for review and improvement. Local authorities should regularly monitor the compliance of existing licences against their permitted discharge allowance.
7. Policy on the use of domestic and commercial food waste disposers (FWDs) should be developed in order to reduce the loading on already overloaded waste water treatment plants. The use of commercial and domestic FWDs and their impact on the Environment was part of an EPA research project: EPA Strive Programme 2007-2013, Examining the Use of Food Waste

4.3 Monitoring and Reporting

8. Close communication and a follow-up procedure should be developed between those responsible for environmental monitoring and the operation and control of the treatment plant to ensure that corrective actions are taken where exceedances occur.

9. Local authorities should ensure that all monitoring and analysis is carried out in accordance with the Regulations for all treatment plants including those that are managed and operated by third parties on behalf of the local authority. A significant increase in compliance with the Directive would be achieved if monitoring frequencies met the minimum frequencies set out in the Regulations.

4.4 Management of Odour and Noise

10. The management of odour and noise from waste water treatment plants should be given particular priority notwithstanding the statutory requirements conferred on local authorities under the European Communities (Waste Water Treatment)(Prevention of Odours and Noise) Regulations, 2005. Each local authority should prepare odour management plans for each treatment plant operated by or on its behalf.

4.5 Seriously Polluted Waters

11. The relevant local authorities should further investigate the causes of serious pollution in the stretches of river listed in Table 3-2 of this report and take the necessary corrective action in relation to the discharge. In addition to the seriously polluted river sites, the bathing water sites failing the mandatory standards also need to be investigated and corrective actions put in place. Corrective actions should include in some cases the provision of waste water treatment and in other cases a review of the existing plant operation and performance.
12. In addition to the seriously polluted river sites identified by the EPA, the *at risk waters* as defined by the Water Framework Directive, should also be a priority for protection. The principal waters at risk from discharges include those that have limited assimilative capacity, those that contain sensitive species or habitats and those waters that are used for water abstractions, fisheries, shellfish production or recreation. Discharges to these sensitive waters should be targeted for action by local authorities in the Programme of Measures for each of the River Basin Districts. The protection of drinking water abstractions is an area that should be fully integrated into all relevant aspects of the Water Framework Directive including the monitoring programmes and programme of measures for improvements in waste water management and treatment.



ENVIRONMENTAL PROTECTION AGENCY

STRATEGIC ENVIRONMENTAL ASSESSMENT

**WETLANDS CONSERVATION
AND PROTECTION**

*Appendix 4 -Wetlands Conservation and Protection in EPA Code of Practice:
Environmental Risk Assessment for Waste Sites
Environmental Protection Agency, 2007*

APPENDIX 4 Wetlands – Protection, Conservation and Assessment

Introduction

Wetlands perform very important functions at both a local and global scale, provide resources important for human welfare and represent a valuable cultural and natural heritage. Apart from the Antarctic continent, wetlands are the only major ecosystem that is the subject of an international treaty, the Ramsar Convention¹ of which Ireland is a contracting party. The Convention on Wetlands, signed in Ramsar, Iran, in 1971, is an intergovernmental treaty, which provides the framework for national action and international cooperation for the conservation and wise use of wetlands and their resources. However, despite the above, wetlands were until very recently regarded mistakenly by many simply as unproductive land whose conversion to a more profitable use, mainly agriculture, was beneficial to society. Alternatively, they were considered simply as wastelands ideally suited to the disposal of wastes. The unsustainability of both approaches is now recognised and they are no longer considered acceptable practices.

The European Union (EU) issued a Communication on the Wise Use of Wetlands² in 1995, which outlines the importance of wetlands and their functions for human welfare, notes the increasing loss of wetlands at both a global and EU level and states its commitment to wise use of wetlands in the context of sustainable development and in accordance with the Ramsar Convention. This document provides a strategic basis for a policy development in relation to the sustainable use of wetland resources and the conservation of their functions and values in the EU. The Commission recently produced another useful document, which provides guidance on the role of wetlands in the implementation of the Water Framework Directive (European Commission, 2003).

Under the Ramsar Convention wetlands are defined as “areas of marsh, fen, peatland, or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish, or salt, including marine waters, the depth of which at low tide does not exceed six metres³.”

The wise use of wetlands was described as “human use so that they may yield the greatest continuous benefit to present generations while maintaining its potential to meet the needs and aspirations of future generations”, this “in a way compatible with the maintenance of their “physical, biological or chemical components, such as soil, water, plants, animals and nutrients, and the interaction between them”⁴.

¹ <http://www.ramsar.org>

² Reference to the Commission Communication to the Council and the European Parliament – Wise use and Conservation of Wetlands (COM (95) 189 final, 29.05.1995)

³ Common Understanding given at the Convention of Wetlands of International Importance especially as Waterfowl Habitat, Article 1(1)

⁴ Conference of the Contracting Parties of the Ramsar Convention.

Wetland Conservation

Wetland conservation has benefited from a number of different EU Directives especially the Birds Directive⁵, and Habitats Directive⁶ and more recently from the Water Framework Directive (WFD)⁷. These and their implementing legislation have allowed the designation of a series of protected area networks: Special Protection Areas (SPAs) for birds, and Special Areas of Conservation (SACs) for habitats and species. In addition, the Wildlife (Amendment) Act, SI No 38 of 2000, allows for the designation of Natural Heritage Areas for habitats, species and, geological and geomorphological sites.

The Birds and Habitats Directives have been transposed into Irish Law by the European Communities (Conservation of Wild Birds) Regulations, 1985 (S.I. No. 291 of 1985) and the E.C. (Natural Habitats) Regulations, 1997 (S.I. No. 94 of 1997) and subsequent amendments and the Wildlife Act (S.I. No 38 of 2000). The National Parks and Wildlife Service (NPWS) of the Department of Environment, Heritage and Local Government is the enforcement organisation with respect to the Habitats and Birds Directives and Wildlife Acts. Under the legislation and regulations it has the power to specify potentially damaging actions, which may adversely impact on protected areas, as Notifiable Activities. These activities, which include infilling designated wetlands, require prior assessment and approval from the Minister before they can be undertaken. However, in those cases where these actions are regulated by other regulatory bodies it is the responsibility of those bodies to ensure that their actions are compatible with the protection of the site. In other words with respect to the Habitats Directive in relation to dumping of waste in wetlands the appropriate regulatory authority is the Local Authority.

All SPAs, SACs and NHAs designated for water dependant habitats and species will be included in the Register of Protected Areas for each River Basin District established under the Water Framework Directive. This listing means that water quality and quantity requirements necessary for the conservation of these sites must be taken into account in drawing up River Basin Management Plans. In addition, the WFD requires the identification and protection of groundwater dependent terrestrial ecosystems (GWDTE) but does not specify the minimum size of ecosystem that needs to be assessed. However, it is the intention that designated areas will be assessed first and individual undesignated areas will be assessed on a case-by-case basis as and when resources permit.

In addition, wetlands have been afforded special consideration in terms of illegal waste activity in the Ministerial Direction (Circular WIR: 04/05) whereby it indicates that a risk assessment should be undertaken and that wetland sites (as well as NHAs, SACs or SPAs) should be remediated (which may include removal of the waste) in the case of illegal waste facilities which are discovered.

⁵ Directive on the conservation of wild birds (79/409/EEC)

⁶ Directive on the conservation of natural habitats and wild fauna and flora (92/43/EEC)

⁷ Directive establishing a Framework for community Action in the field of Water Policy

Wetland Assessments

For the purposes of this CoP, especially in relation to risk assessment, mitigation and remediation, it is useful to divide wetlands into those whose hydrology and ecology are dependant on surface water and those dependant on groundwater. However, it is important to recognise that the ecology of any site may be dependant on both water sources to varying degrees and different habitats and species will have different sensitivities to changes in water regimes and water quality. In general surface water dependency and the linkages between a landfill and a wetland receptor are reasonably easily identified, while groundwater dependency is more problematic.

All the Irish wetland types listed below are considered to be groundwater dependant to varying degrees. Three basic categories can be recognised:

Highly groundwater dependant ecosystems where reductions in quantity/quality would cause major adverse changes in ecosystem structure and function in the short to medium term. These include:

- turloughs;
- fens, in particular rich fens and flushes;
- springs;
- marl lakes; and
- dune slacks.

Dependant ecosystems, which, although surface water may be a dominant influence at certain times, are usually dependent on some groundwater input to retain their current ecology in the medium to long term. These include:

- rivers;
- lakes;
- swamps;
- estuaries;
- lagoons;
- freshwater marshes;
- poor fens and flushes;
- transition mire and quaking bog;
- riparian woodland;
- wet willow-alder-ash woodland;
- bog woodland;
- non-marine caves; and
- machairs.

Independent to locally dependent ecosystems where surface water is the dominant influence and where groundwater is generally only locally important. Groundwater may however be very important in the maintenance of appropriate hydrological conditions. These ecosystems include:

- raised bogs; and
- upland and lowland blanket bogs.

In line with the Ministerial Direction an assessment should be made on the impact an illegal waste activity is having on any wetland (i.e. includes undesignated sites). When illegal activities are discovered, the Risk Assessment (Figure 1) has to be undertaken and should include the following stages.

DESK STUDY

Determine the location of the designated sites (NHAs, SACs, SPAs), pNHAs, candidate SACs and locally important sites – these are given equal status and are automatically considered as receptors. RBDMPs have maps showing the wetland sites on the register of protected areas and whether they are considered to be GWDTE. NPWS of the DoEHLG have maps of all non-wetland NHAs, SPAs, SACs. Any infilling on designated sites is considered a notifiable action.

WALKOVER SURVEY

Any wetlands present within 250m of an unregulated waste site should be identified during the walkover stage of the risk assessment and a risk screening score applied. The wetland should be associated with the broad type of wetland.

SITE INVESTIGATIONS

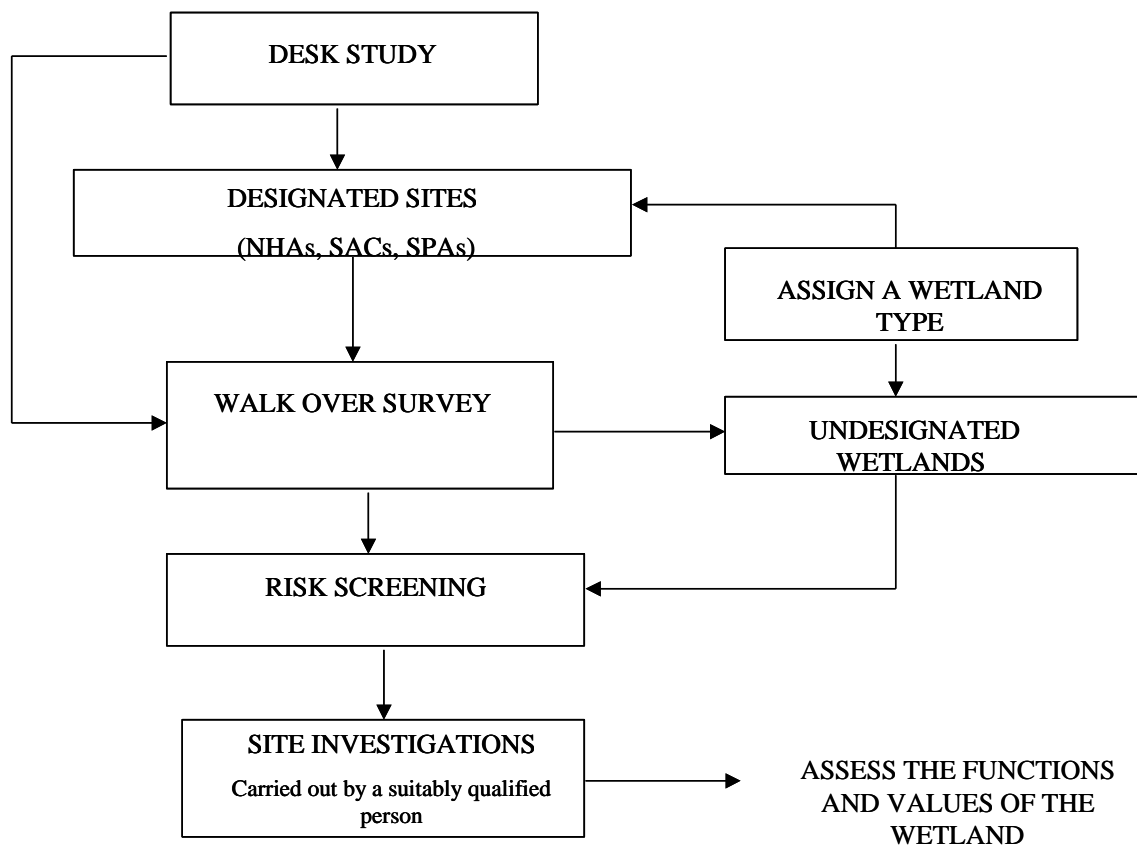
Having regard to the broad wetland categorisation, which has been assigned following the Site Inspection (including walk over survey), guidance should be obtained from the NPWS to outline the minimum requirements for the programme of Site Investigations to be undertaken when undertaking a risk assessment of illegal waste activities.

Further assessment shall be carried out during the site investigation stage in consultation with the National Parks and Wildlife Service of the DoEHLG.

The assessment as a minimum shall consider the value and the functions of the wetland. Some functions that wetlands provide are; flood and erosion control; improved water quality; carbon sequestration and storage; and, provision of habitats for a wide range of aquatic and wetland dependent plant and animal species. Ecological and hydrological surveys /assessments must be carried out

In all cases a suitably qualified person shall carry out the surveys and assessments.

Figure 1: CODE OF PRACTICE FOR ILLEGAL WASTE SITES



Waste Regulations – Licensing and Permitting

The infilling of designated wetlands by either landfill, or through improvement or development of land, or through land reclamation is no longer an acceptable practice. Accordingly, illegal landfills should not be allowed to remain in-situ in wetlands under circumstances where it is deemed (following an assessment) to result in a negative impact.

Infilling of designated wetlands should not be allowed and a permit should be not be granted for wetland pNHAs, NHAs, SACs, SPAs, and locally important sites.

For other non-wetland designated sites infilling is a notifiable action and consultation should be held with the NPWS prior to making a determination with respect to the permit. Permits can only be allowed when it has to been demonstrated that the infilling will not have a significant negative impact.

For undesignated wetlands, a permit application will have to address the potential impacts both on the wetland itself and on the services that it provides (flood relief, water quality, biodiversity). The local authority shall consult with the NPWS of DoEHLG, OPW (flood remit), Fisheries Board and the RBDs (Water quality section of LA).

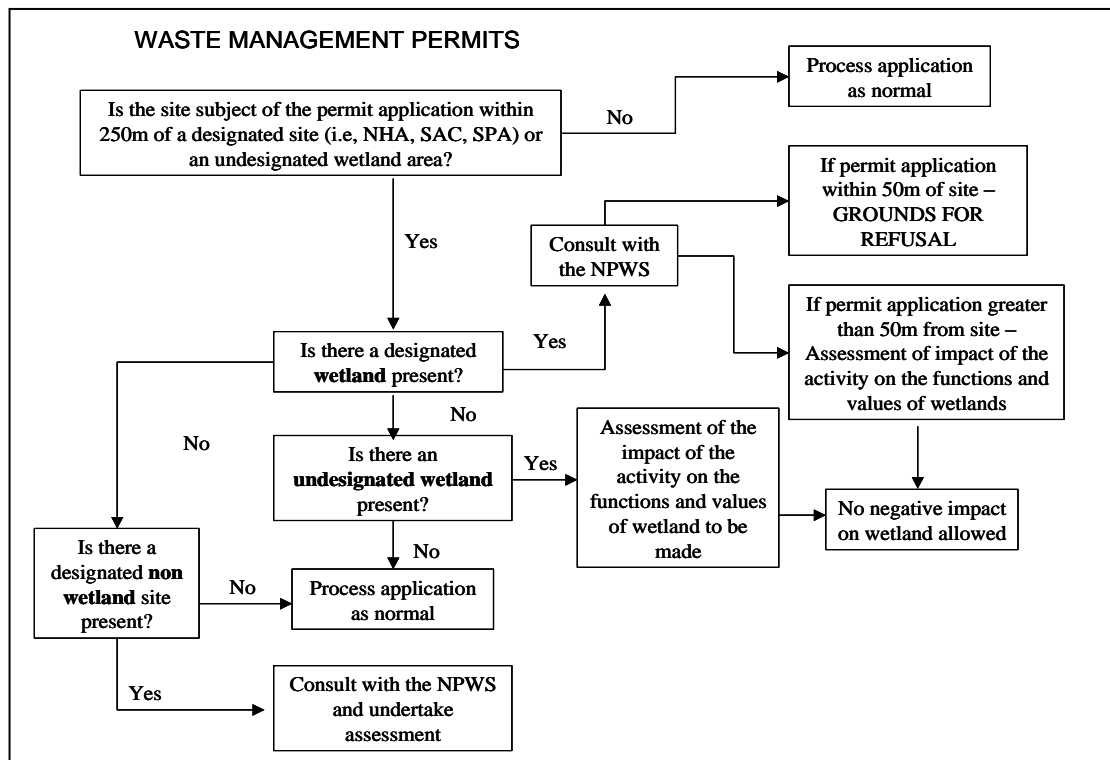
Figure 2 below provides a flow-chart of these procedures.

A permit application, which may be submitted by an operator seeking to carry out an in-situ remediation of an illegal site, which has involved the infilling of wetlands but is not considered to result in a negative impact, must address all impact and potential impacts:

On the wetland itself, and the services, functions and value that the wetland provides (e.g. flood relief, water quality, biodiversity etc.)

Such a permit application must contain sufficient detail and information so as to allow the competent authority to make a determination that the infilling of the wetlands will not have an adverse impact on the environment following execution of the proposed remediation works. Remediation of a wetland or removal of waste from a wetland shall be supervised by an ecologist or suitably qualified and experienced person.

Figure 2: WASTE MANAGEMENT PERMITS





ENVIRONMENTAL PROTECTION AGENCY

STRATEGIC ENVIRONMENTAL ASSESSMENT

**APPROPRIATE ASSESSMENT OF
LAND USE PLANS**

*Department of Environment, Heritage and Local Government
Circular Letter SEA 1/08 & NPWS 1/08
15 February 2008*



Comhshaol, Oidhreacht agus Rialtas Áitiúil
Environment, Heritage and Local Government



Circular Letter SEA 1/08 & NPWS 1/08

15 February, 2008

Appropriate Assessment of Land Use Plans.

A chara,

I have been asked by the Minister for the Environment, Heritage and Local Government, to refer to the recent ruling against Ireland in Case 418/04 EC Commission v Ireland. The ruling relates to Ireland's transposition and implementation of the Birds Directive 79/409/EEC, as well as its implementation of relevant articles of the Habitats Directive 92/43/EEC.¹

Overview of Court findings

The findings of the Court in its lengthy judgment have major implications for the way in which Ireland protects areas important for birds, both designated and undesignated, and by implication, habitats requiring protection under EU law.

In broad terms, the ruling is expected to require legislative change to complete the transposition of the Directives. Additional designations, or re-designations, of areas as Special Protection Areas for birds are also required: this work is already underway.

The ruling also indicates that Ireland must take all reasonable targeted measures in striving to prevent deterioration of areas important to birds.

Finally the ruling also requires a more robust and thorough application by all consent authorities, including planning authorities, of the requirement to do an appropriate assessment of the ecological implications of any plan or project, whether within or outside a designated site, which does not directly relate to the management of the site but may impact upon its conservation objectives.

¹ A link to the judgement is available at:<http://curia.europa.eu/jurisp/cgi-bin/form.pl?lang=en&Submit=Rechercher&alldocs=alldocs&docj=docj&docop=docop&docor=docor&docjo=docjo&numaff=C-418/04&datefs=&datefe>

Appropriate assessment of land use plans

The ruling among other things clarifies that Ireland has not correctly transposed Article 6(3) and (4) of the Habitats Directive 92/43/EEC by not providing explicitly for appropriate assessment of land use plans, as opposed to projects (paras 222 to 234 of the ruling). The implications of the ruling are as follows.

Screening for possible impacts

Any draft land use plan (development plans, local area plans, regional planning guidelines, schemes for strategic development zones) or amendment/variation to it proposed under the Planning and Development Act 2000 (as amended) must be screened for any potential impact on areas designated as Natura 2000 sites (normally called Special Areas of Conservation (SACs) or Special Protection Areas (SPAs)).

This screening should be based on any ecological information available to the authority and an adequate description of the plan and its likely environmental impacts.

This should take into account any policies that will set the terms for future development. Up to date maps of Natura 2000 sites, or areas proposed for designation, are available on www.npws.ie. The results of the screening should be recorded and made available to the public.

In any case where, following screening, it is found that the draft plan or amendment may have an impact on the conservation objectives of a Natura 2000 site or that such an impact cannot be ruled out, adopting a precautionary approach-

- an appropriate assessment of the plan must be carried out and
- in any case where a strategic environmental assessment (SEA) would not otherwise be required, it must also be carried out.

What is an appropriate assessment?

An appropriate assessment means an assessment, based on best scientific knowledge, by a person with ecological expertise, of the potential impacts of the plan on the conservation objectives of any Natura 2000 site (including Natura 2000 sites not situated in the area encompassed by the draft plan or scheme) and the development, where necessary, of mitigation or avoidance measures to preclude negative effects. The impacts assessed must include the indirect and cumulative impacts of approving the plan, considered with any current or proposed activities, developments or policies impacting on the site. The potential impacts of policies outside Natura 2000 sites but potentially impacting upon them (known as 'ex situ' impacts) must also be included in the assessment.

In order to meet the requirement of the Court that determinations are based on best scientific knowledge, planning authorities should ensure that those carrying out the assessment have sufficient expertise and experience in relation to the ecological or other (e.g. hydrological) issues concerned and disclose an appropriate regard for the latest and most appropriate scientific methodology and assessment procedures.

Role of the Department

The National Parks and Wildlife Service (NPWS) of the Department has a formal consultation role (through the Development Applications Unit (DAU)) as part of the screening and assessment process. It will endeavour as far as possible to indicate areas of potential concern and possible mitigation or avoidance measures. It should be noted however that consulting the Department during the screening process or referring a draft plan or amendment to the Department does not amount to an appropriate assessment.

Co-ordination with Strategic Environmental Assessment

The appropriate assessment should be published concurrently/jointly with the SEA of the plan or amendment but should be clearly distinguishable from it. It is probable that some of the information contained in the SEA will be repeated in the appropriate assessment. The SEA should also look at wider biodiversity issues arising from its proposed implementation, including impacts on other areas of importance for nature, including (proposed) Natural Heritage Areas and Nature Reserves and undesignated habitats of EU importance and areas important for birds. For example, appropriate policies should be included to ensure the mitigation of the potential impacts of windfarm developments on upland areas, which may be important for certain species of birds. These biodiversity issues should already have been identified, along with any necessary mitigation measures, when undertaking the accompanying appropriate assessment.

Incorporation of outcomes of appropriate assessment.

Any mitigation measures or measures proposed to avoid impacts on Natura 2000 sites should be incorporated into the policy or detail of the draft plan before finalisation.

Implications of a negative or inconclusive assessment

Notwithstanding the proposed mitigation measures or other proposals to avoid impacts contained in the appropriate assessment, the assessment based on best scientific knowledge may be that there continues to be the potential for a significant adverse impact on the integrity of a Natura 2000 site, or reasonable doubt about the potential for such an impact, having regard to its conservation objectives, if the plan as drafted is implemented.

In that event, a decision giving approval to that part of the plan cannot be given², unless a series of steps are carried out. These are:

- The examination of alternative solutions, including the option of not adopting that policy or other part of the plan. While the Directive suggests this step here, planning authorities are advised to examine alternative solutions and record their conclusions at the earlier stage of carrying out the assessment, so as to ensure that delays do not arise later.

² i.e. the plan or amendment can be authorised only to the extent that the authority is satisfied it will not adversely affect the integrity of the area.

- If it is determined that no alternative solution is preferable, for example, because any other solution would have more significant impacts on a Natura 2000 site, it will be necessary to establish that there are imperative reasons of overriding public interest, including those of a social or economic nature, if the plan or amendment is to be approved. Where a plan or amendment would impact on a habitat of “priority” importance in a Natura 2000 site designated for it (such habitats are indicated in the Annex I of the Habitats Directive with an asterisk), approval can only be granted for reasons of human health and public safety.
- In certain cases the provision of compensatory sites may also be proposed. Compensatory measures (normally improving or recreating habitat outside a Natura 2000 site) are a last resort and may be considered only when a decision has been taken to proceed with a plan or amendment despite its negative impact on the site and having regard to every proposed mitigating measure. This can happen only in the very exceptional circumstances set out in Art 6(4) of the Habitats Directive. The NPWS must be consulted in any case where such compensatory measures are considered.

It should be noted that the European Commission must be informed of any instance where compensatory measures are applied, and in certain circumstances, must approve their application. The Department should therefore be advised in writing (through the Development Applications Unit) of any instance where it is proposed to apply compensatory measures.

These steps must be followed in advance of a decision being taken to adopt the part of the plan about which the assessment is negative or inconclusive. In the event that this approach is followed, it is critical to record every decision taken, and the basis for it in detail.

Transitional measures

Planning authorities should apply the above procedure in advance of adopting any draft plan or amendment published after the date of this circular.

While it may not be possible to carry out a full appropriate assessment in the case of any draft plan or amendment published prior to the issue of this circular but not yet adopted, planning authorities should review the policies and provisions of such a draft plan or amendment and where necessary not adopt any part of such a plan where a significant impact on a Natura 2000 site is likely. Planning authorities must take particular care to avoid zoning for development any area where the types of development permitted under the zoning could have a significant effect on the conservation objectives of a Natura 2000 site.

Furthermore, when considering any variation to an existing plan which appears to contain elements that are non-compliant with the required process, planning authorities should use the opportunity of the variations to address overall compliance throughout the plan.

Further Guidance

The implications of the ECJ ruling for current planning legislation will require further consideration by the Department. Following that, more detailed guidance will issue on the implementation of appropriate assessment in respect of plans and projects. In the meantime planning authorities may find guidance published by the European Commission of assistance. It may be obtained at:

- Guidance document on Article 6(4) of the Habitats Directive 92/43/EEC (01/2007)
http://ec.europa.eu/environment/nature/natura2000/management/docs/art6/guidance_art6_4_en.pdf
- Guidance document on Article 6(4) of the Habitats Directive 92/43/EEC (11/2001)
http://ec.europa.eu/environment/nature/natura2000/management/docs/art6/natura_2000_assess_en.pdf

Specific guidance on compliance conditions in respect of developments requiring EIA or having potential impacts on Natura 2000 sites has been given in Circular Letter PD 2/07 & NPWS 1/07.

Further information may be sought –

o on Strategic Environmental Assessment policy from Brian O’Neill
(Tel: 01-888 2592, Brian.O’Neill@environ.ie)

o on Habitats Directive policy from the undersigned
(Tel: 01-888 3220, Peter.Carvill@environ.ie)

o on the appropriate assessment of a plan or amendment from the appropriate Divisional Ecologist of the National Parks and Wildlife Service for your area –

o Southern Division: Jervis.Good@environ.ie

o Western Division: Julie.Fossitt@environ.ie

o Eastern Division: Linda.Patton@environ.ie

o Northern Division: William.Cormacan@environ.ie

Is mise le meas,



**Peter Carvill,
Assistant Principal.**

To all County and City Managers, Directors of Services for Planning, Town Clerks