

6.7 Cultural Heritage including Archaeology and Architecture

The Region is reasonably well supplied with arts and cultural centres, facilities and events. The Region has a rich archaeological and architectural heritage.

The archaeological heritage of the Region is a unique resource, which has shaped our landscape and our cultural identity. Archaeological remains of special interest are included in the 'Record of Monuments and Places'. The National Monuments Acts 1930 – 1994 provide for protection of our archaeological heritage. The Department of the Environment, Heritage and Local Government National Monuments Section has a specific role in relation to the protection of the archaeological heritage. Each Local Authority has a legal responsibility to include a Record of Protected Structures in its County Development Plan. Structures or parts of structures can be added to the Record if they are of special interest under one or more of the following headings: Historical, Cultural, Artistic, Archaeological, Scientific, Social, Technical and Architectural

The region contains a fine stock of architectural heritage including many large country houses and their associated demesne landscapes, ecclesiastical sites and other sites of industrial and vernacular heritage. Parts of the streetscapes of many of the urban areas within the region contain groups of buildings which make an important contribution to the streetscape. These significant areas of the built environment have been designated Architectural Conservation Areas (ACAs).

The principle legislation that provides the protection to our architectural heritage is the Planning and Development Act, 2000 - 2007. Building activity and natural resource exploration has increased significantly in recent years. This coupled with an increase in afforestation and changing farming methods has placed the built heritage under increasing threat.

6.8 Landscape and Visual Impacts

The diversity of landscapes and natural heritage within the region enables views and prospects of areas of natural beauty from many public roads. Accordingly a number of scenic landscapes and routes, sensitive and visually vulnerable areas are designated throughout the region and listed in Co. Development Plans for local authorities within the region. The region's landscapes are of key importance to the region's tourism industry. Development of infrastructure including energy networks, wind energy and tourism developments all have the potential to impact on the uplands, waterway corridors, demesne and coastal landscapes of the region. It is considered that landscape will form a significant issue in the Environmental Report.

In terms of landscape and visual amenity, local authorities in Ireland conserve

and protect scenic value as Areas of High Amenity, Areas of Outstanding Natural Beauty and Protected Views. Each local authority is responsible for the designation of these within their individual jurisdictions, with each Development Plan providing objectives to protect such views. A summary of the general landscape character and landscape designations of each of the Counties within the Border Region is provided below.

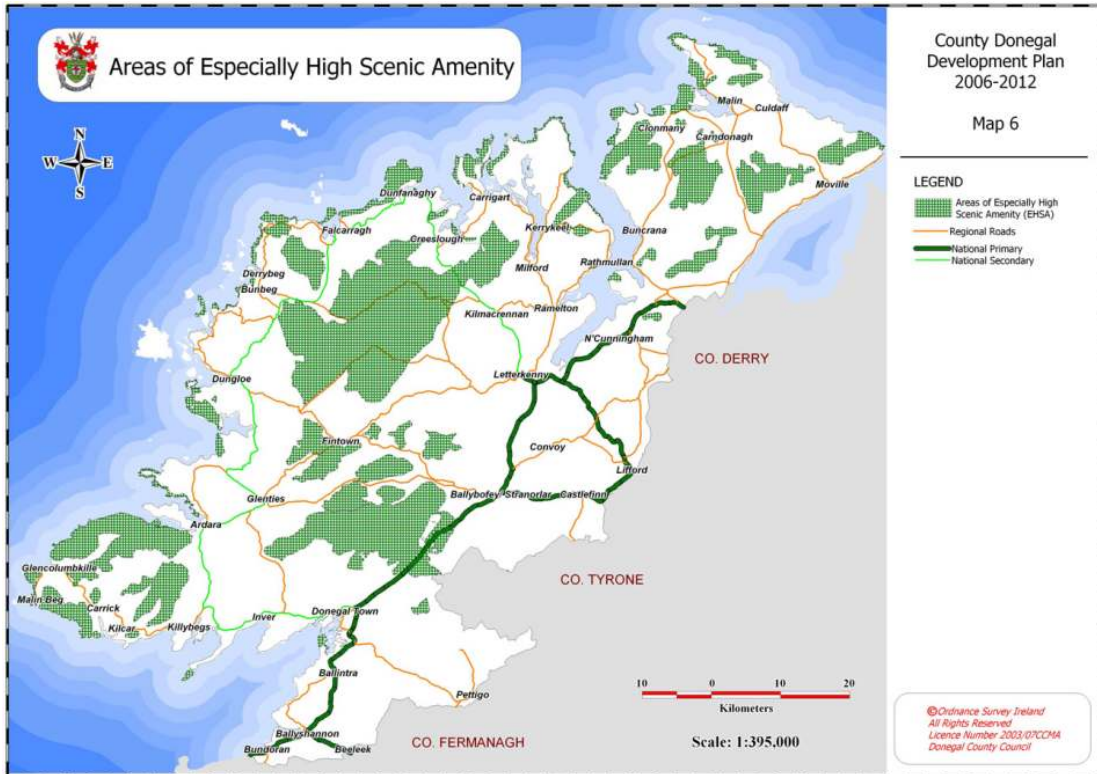
Table 1 General Landscape Character of each County

County	General Landscape Character
County Donegal	The landscape of Co. Donegal is dominated by a mountainous granite spine running northeast to southwest comprising the mountain ranges of Derryveagh. To the southwest of these ranges there is a massive peninsula of hard quartzite mountains, known as the Blue Stacks, extending from Ballybofey west to Glencolumbkille on the west coast. The west coast provides a indented Coastline, that includes the dramatic sea cliffs of Slieve League, spectacular beaches, tidal sheltered bays, extensive peninsulas and sea loughs (such as Inishowen and Lough Swilly in the North East), in addition to numerous offshore islands, some of which are still inhabited.
County Sligo	Described as a varied natural landscape that includes spectacular limestone mountains, such as Benbulbin and Benwisikin, other interesting upland terrain (e.g. the Ox and Bricklieve Mountains), numerous picturesque lakes (e.g. Loughs Arrow, Easkey, Gara, Glencar, Gill and Talt), enclosed farmland and a diverse coastline, comprising low-lying cliffs, indented shoreline and sandy beaches.
County Leitrim	Described as one of high moor topped mountains, drumlin covered lowlands and glens and coastline. Pastureland is interspersed with hilly outcrops, loughs, rivers, wet pasture and raised peat bogs. County Leitrim is divided by Lough Allen into two distinctive topographical areas. The northern half is characterised by mesa mountains and large lakes, with deep glacial valleys radiating from the centre of the land mass to form a spectacularly scenic landscape. The southern half is typical drumlin country exhibiting the landform and soil type which is the product of retreating glacial masses. Close-packed drumlins and small lakes abound. The River Shannon with its associated lake systems, forms the County's South-West boundary with County Roscommon; Donegal Bay touches the northern extremity of the County in a 4.6Km coastline.
County Cavan	Described as one of drumlin countryside dotted with lakes and small hills. The county has several areas of highly scenic landscape including Lough Oughter, the Shannon-Erne Waterway and a number of forest parks.
County Monaghan	The landscape of Co. Monaghan is described as one of drumlins, interspersed with lakes, trees and woodlands.
County Louth	The county boasts an attractive natural environment. Two areas of the county are designated as being of outstanding natural beauty.

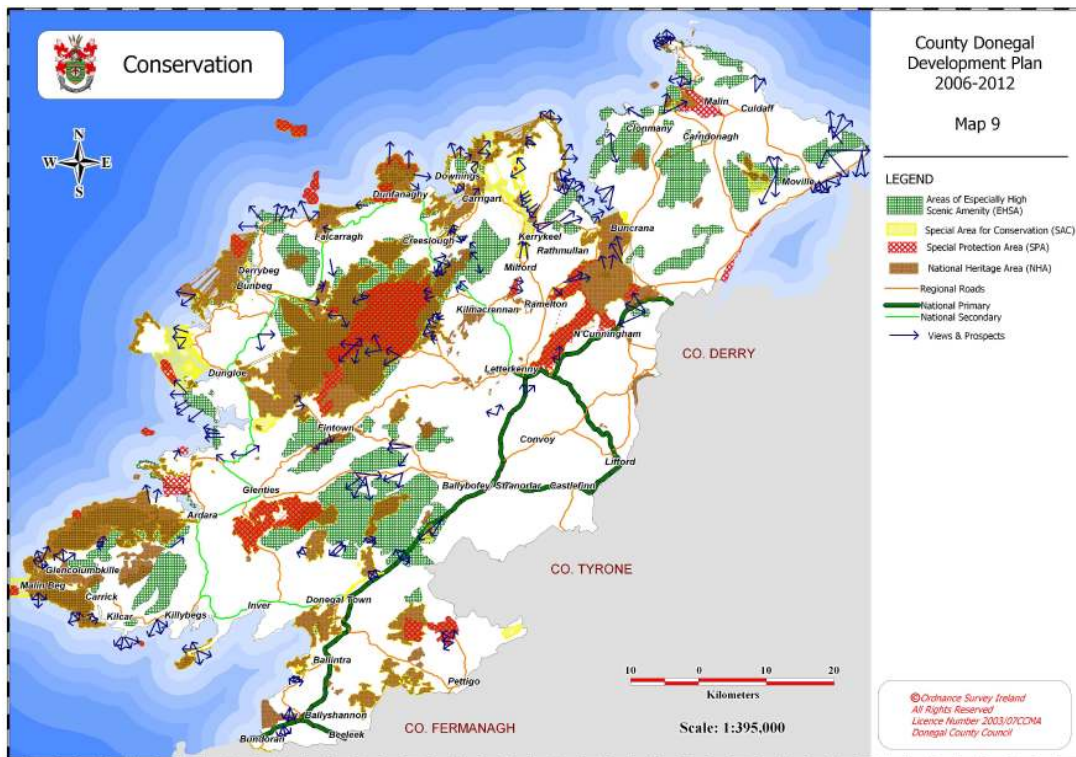
(Table 14 to be completed in the Environmental Report)

Designated Landscapes in County Donegal

The Donegal County Development Plan 2006-2012 does not provide a list of the areas of Especially High Scenic Amenity or Views and Prospects; therefore the maps accompanying the development plan are reproduced here.

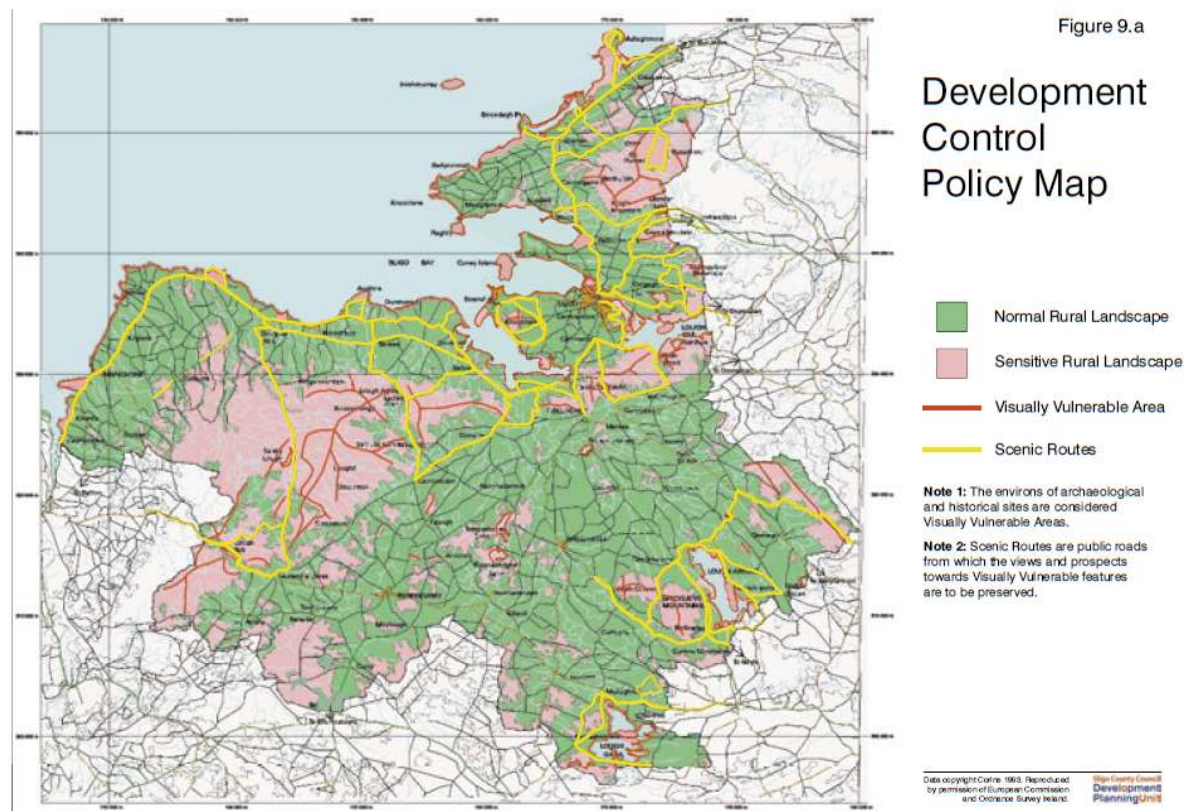


Map 1 Areas of Especially High Scenic Amenity in County Donegal



Map 2 Conservation Map - Views & Prospects in County Donegal Designated Landscapes in County Sligo

The Sligo County Development Plan 2005-2011 does not provide a list of the Designated Landscapes, therefore the maps accompanying the development plan are reproduced here.



Map 3 Designated Landscapes in County Sligo

Table 2 Scenic Views in County Sligo

Type of Designation	Location
Scenic Views	<p>Views from National Primary Routes Views of Atlantic Ocean, Ben Bulbin, Kings Mountain and Benwislin Views of Glencar Lake, Ben Bulbin and Atlantic Ocean Views of Lough Arrow, Bricklieve Mountains and Curlew Mountains</p> <p>National Secondary Routes Views of Ballysadare Bay and Knocknarea Views of Atlantic Ocean and Ox Mountains</p> <p>Views from Regional Routes Views of Atlantic Ocean, Donegal Bay and Benwislin Views of Sligo Bay and Harbour, Coney Island, Knocknarea and Coolera Pennisula, Slieve Dargan, Slieve Daeane, Killery Mountain and Ox Mountains Views of Ballygawley Lough, Slieve Dargan and Slieve Daeane Views of Lough Gill and Colgagh Lough Views of Lough Gill, Slish Wood, Slieve Dargan, Slieve Daeane and Killery</p>

	<p>Mountain Views of Knocknarea, Ballysadare Bay, Sligo Bay, Slieve Dargan and Slieve Daeane Views of Sligo Harbour, Sligo Bay and Belben Views of Knocknarea Views of Sligo Bay, Ballysadare Bay and Knocknarea Views of Lough Talt and Ox Mountains Views of Kesh Corran and the Bricklieve Mountains Views of Lough Gara Views of Killala Bay and Atlantic Ocean</p> <p>Views from Local Roads 44 No views listed For details of all listed views see; http://www.sligococo.ie/media/Media.1936.en.pdf</p>
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Table 3 Designated Landscapes in County Leitrim

Type of Designation	Location
Areas of Outstanding Natural Beauty	The Coast Lough Melvin North Aroo, Glenade, Truskmore, Glencar and environs The Doons, Lough Gill and environs Benbo O'Donnell's Rock and Boleybrack Sheemore
Areas of High Visual Amenity	Coastal Plains Lough Melvin, Glenaniff River and Environs Dough Mountain Thur Mountain Lough McNen Upper and environs Cloonclare Lough Caradice and environs Gulladoo Lake and environs
Outstanding views and Prospects	View towards Donegal Bay from N15 and Local Roads LP02059-1, LP02059-2, LP02059-3, LS06058-0, LS06059-0, LS06001-0 and LS06071-0 View from Local Road LS06049 toward Truskmore and Kings Mountain View towards Lough Melvin and Donegal Bay from Local Road LS06094-1 and LS06094-2 View of Lough Melvin from Aghavoghil View of Loughs Melvin and McNean from Loughross Bar (Local Road LS06197) View towards Glenade Lake and valley from R280 View towards Glenade Lake from Local Roads LT2125-1, LT2151-2, LT02125-1 and LP02125-2 View towards Glencar Lake from Local Road LP04145 View towards Glencar Lake from N16 View towards Benbo Mountain from Local Road LP02136 View towards Lough McNean from Local Roads LT61842-1, LT61842-2, LT61843 and LT61961. View of Fivemilebourne and Carrickanurroo View of Lough Gill from Carrickanurroo View of Lough Gill from R286 View towards Carrigeencor Lake from Local Roads LS08162 and LS08164 View of Benbo, Thur and Dough Mountains from R280 View from O'Donnell's Rock View of Creevelea Abbey from the R286 View towards Bellhavel Lake from Local Road LT42461 View from Gleaghnafernagh from Local Road LT42533

	View towards Lough Allen from the R280 View towards Lough Allen from the R200 View of Slieve an Iarainn from the R280 View of Slieve an Iarainn and Lough Scur from the R209 View of River Shannon from the N4 Faulties to Aughamore View of Lough Rynn from Local Roads LP01053 and LS05515 View of River Shannon from Local Road LS07426 View of River Shannon from the N4 in the townlands of Munkil and Tully View towards the Lcean Mountain Range from the R.278 in the area of Doon Lough
Additional Areas of Interest	Long distance walking route running along the eastern side of L. Allen, northwards toward Manorhamilton.

Table 4 Designated Landscapes in County Cavan

Type of Designation	Localtion
High Landscape Areas	Upland Areas West Cavan Lough Oughter Lakeland Area Erne- Shannon Canal corridor Lough an Lea Mountain
Areas of Special Landscape Interest	Kingscourt/ Dun a Rí
Scenic View & Viewing Points	Gortnahill (N16) Altachullion Area Cornagee Area Dunmakeever Bellavally Gap Belville Tower Drumauna Lough an Lea Annagh Lake Lisnananagh Drumgarry Inishmore Rann Point Bleanacup Inchin Derrygid Drumcalpin

Table 5 Designated Landscape in County Monaghan

Type of Designation	Location
Areas of Primary Amenity Value	Slieve Beagh and Bragan Mountain areas Lough Muckno and Environs
Areas of Secondary Amenity Value	Emy Lough and Environs Blackwater River Valley Mountain Water River Valley Mullyash Mountain Ulster Canal and Environs Rossmore Forest Park and Environs Castleshane Woods and Environs Billy Fox Memorial Park and Environs

	Annaghmakerrig Lake, Woodlands and Environs Dartry Demesne and Environs Dromore River & lake system including White Lake and Bairds Shore Lough Major and Environs Hollywood Lake Lisanisk Lake Lough Naglack Rahans Lake Areas of Secondary Amenity Value
Scenic Drives/Views and Prospects	Scenic views along Emy Lough Scenic views of open countryside from Bragan Mountain View of St Macartens Cathedral Monaghan from Berry Brae View from Castleshane Brae View northwards at Tullybuck Scenic drive and views of open countryside from Mullyash Scenic drive along Lough Muckno Distant views of Lough Muckno and Slieve Gullion Views of Slieve Gullion at Taplagh, Broomfield Scenic views of Lough Egish Scenic drive at Beagh, Shantonagh & Corlat Views of Lough Bawn & Co. Cavan Scenic drive Tattybrack

Table 6 Designated Landscapes in County Louth

Type of Designation	Location
Areas of Outstanding Natural Beauty	Town of Carlingford Cooley Peninsula Clogherhead environs
Areas of High Visual Amenity	Mount Oriel Foughart Hill Monasterboice tower from M1 Carlingford Village and Dundalk Bay Drumallgh view towards Narrow Water Feede Mountain Views from Dungooley crossroad Clogherhead Termonfeckin

6.9 Inter-Relationships between environmental topics

The full range of likely environmental impacts will be addressed to include secondary, cumulative, synergistic, medium and long term, permanent and temporary, positive and negative.

Environmental issues cannot be considered in isolation from each other and so the interrelationships between the various factors will be addressed in the Environmental Report. It is considered that the following interrelationships may be relevant.

Table 7 Potential Inter-Relationships between SEA Topics

Biodiversity, Flora, Fauna	√								
Population/ Human Health	√	√							
Soil	√	√	√						
Water	√	√	√	√					
Air	√	√	√	X	√				
Climate	√	√	√	√	√	√			
Material Assets	√	√	√	√	X	√	√		
Cultural Heritage	X	√	X	√	X	X	√	√	
Landscape	√	X	√	√	X	X	√	√	√
	Biodiversity, Flora, Fauna	Population/ Human Health	Soil	Water	Air	Climate	Material Assets	Cultural Heritage	Landscape

√ = Interrelationship Anticipated X = No interrelationship anticipated

7. Significant Environmental Pressures

7.1 Introduction

The future development of the Border Region has the potential to impact on the environment at a regional, county and local level. New development brings with it a need for supporting infrastructure. Key environmental issues that arise include; water supply, treatment of waste water and transportation. Increased population growth in the region is likely to give rise to an increase in car use, particularly where public transport and rail freight is not readily available. This can lead to negative impacts in terms of carbon emissions, air quality and human health.

The Regional Planning Guidelines may impact on the built and natural heritage of the region by identifying development opportunities in areas that could influence the setting and intrinsic value of environmentally sensitive sites. Such sites within the Border Region include the network of Natura 2000 sites, catchment areas for Freshwater Pearl Mussel and scenic landscapes including upland, coastal and waterway corridor landscapes. Environmental impacts may also arise in terms of increased access to sites of cultural and natural heritage including archaeological landscapes and scenic landscapes.

The more significant environmental issues which have been raised during the scoping exercise include; settlement patterns, water quality, biodiversity, landscape and cultural heritage, built heritage, transportation, agriculture,

tourism, afforestation, energy resources, greenhouse gas emissions and climate change, flood risk, waste management and coastal management. Achieving a good quality of life for the people who live, work or visit the Region is considered to be a key objective of the SEA process. Securing economic development and social equity, together with preserving and enhancing the urban and rural character of the Region, are closely associated with environmental issues.

To date air quality and noise pollution have not been raised as significant environmental issues, however they have been scoped-in, due to potential indirect environmental impacts.

Many of the environmental issues referred to herein have an inter-county, cross Regional and cross Border dimension. In addressing these issues it is considered important that there is, where appropriate, a high level of co-operation, integration, and consistency in the approach, by all Authorities and Agencies concerned with the management of the Environment, particularly at the making of County and Local Area Development Plans.

A list of the significant environmental issues to be 'scoped in' is given in Table 8 below. Generally the environmental impacts mentioned under the various topics listed in the table can often act across a number of topic areas e.g. afforestation may impact on; biodiversity, water quality, landscapes and material assets. The impacts can vary in scale and extent, some are short term and reversible, others are more long-term and may be permanent. Also, whereas individual impacts may be minor, the cumulative impacts, particularly when viewed over the longer term can be significant.

Table 8 Scoping of SEA Topics

SEA Topics	Scoped in	Indicative list of environmental impacts that need to be considered, either directly or indirectly, in the Environmental Report.
Biodiversity, Fauna and Flora	In	Impacts on protected areas: European Sites (SACs SPAs, Ramsar sites, ASSI/HVA's Impacts on flora and fauna and habitats including coastal and marine habitats, floodplains, wetlands, watercourses, peatlands and woodlands. Impacts on Freshwater Pearl Mussel protected areas Impacts on other sensitive habitats, including protected fish species, peatlands. Impacts of invasive species. Interaction with Habitats Directive – Article 6 & 10 requirements
Population	In	Impacts of change in population profile. Impacts of change in settlement patterns and car use. Road Safety Efficient use of infrastructural and community services Increased demand for waste water treatment systems and waste management facilities. Impacts on environmentally sensitive areas
Human Health	In	Impacts on water quality including drinking water and bathing water. Air and Noise pollution to a lesser extent. Impacts associated with flooding. Generally impacts mentioned elsewhere tend to act either directly or indirectly and to varying extents on human health and wellbeing.
Soil	In	Impacts of land use activities including, urban and rural development,

		windfarms, waste disposal, afforestation, recreation and agricultural activities.
Water	In	Impacts of development and activities on water quality including drinking water and bathing water. Impacts of urban and rural development including, wastewater and surface water disposal ,agricultural activity, water recreational activities and afforestation.
Air	In	Impacts of air pollution associated with transport and industrial emissions
Climatic factors	In	Impacts of greenhouse gas emissions and flooding. Also impacts of energy generation and consumption. Impacts of energy use and need for conservation
Material Assets	In	Impacts of development on infrastructure, utilities and amenities including rail, road, water supply, wastewater treatment facilities, amenities and cultural heritage. Also included are impacts on economic assets such as quarries, agricultural lands, coastal and water resources which support fisheries and the tourism industry.
Cultural heritage, including Architectural and Archaeological	In	Impacts on items and features of heritage value including items of landscape, architectural, archaeological and historical importance, including shipwrecks.
Landscape	In	Impact on visually sensitive areas including designated landscape and seascapes.
Interrelationship between the above topics	In	Cumulative impacts and interaction of above mentioned items. The impacts and interactions will obviously vary in extent and nature.

7.2 Biodiversity, Flora and Fauna

Throughout the island of Ireland there has been a decline in many of the native species through habitat loss, competition, development and agriculture.

Notwithstanding the need to manage a wide range of habitats and species of acknowledged importance, it is considered that the management of Natura 2000 sites (SAC's and SPA's) and Natural Heritage Sites located within the Region is of primary importance.

Moreover, developments associated with agricultural activities, windfarms, afforestation, urban development and certain infrastructural works within or close to the areas of ecologically sensitive sites must be carefully planned and managed so as not to compromise the integrity of these sites.

Wastewater discharges, runoff from agriculture, leachate from landfills and contaminated sites and nutrient input from forestry can all have detrimental effects on water quality resulting in subsequent impacts to biodiversity. Annex II species such as freshwater pearl mussel and salmon are particularly sensitive to pollution. The protection of shellfish growing areas from pollution is an issue of significant environmental concern within the Region.

Certain development works on shorelines and floodplains and the associated infilling of wetlands is a potential environmental problem within the Region.

Invasive non-native plant and animal species are one of the greatest threats to biodiversity affecting the Region.

Climate change may impact on the rich biodiversity and flora and fauna of the Region in terms of changes in participation patterns and temperature variations. There is growing concerns that the Region may be affected in different ways by climate change with a pronounced East/West split developing as changes progress.

Other factors that may impact on biodiversity of the Region include;

- Loss of environmentally sensitive 'greenfield sites' to development works.
- Changes in hydrology including drainage and flooding
- Peat/Turf Extraction
- Overgrazing/Undergrazing
- Damage arising from intensive Recreating/Amenity Use
- Damage arising from Quarrying activities
- Loss of hedgerows.
- Loss of local biodiversity pockets.

7.3 Population and Human Health

Ireland's and Northern Ireland's economy has experienced unprecedented economic growth since the early 1990's.

The increase in population has the potential to impact on biodiversity, water quality, landscape, cultural heritage and air quality. Individual and cumulative changes in the quality of the environment at local, regional and national level has the potential to impact to varying degrees on human health and wellbeing.

Waste discharges from municipal wastewater treatment plants and certain agricultural activities particularly slurry spreading and afforestation is a significant pressure on water quality and hence public health. The cumulative impact of one-off housing in the countryside and rural housing clusters that are served by wastewater treatment systems, are a significant risk to water quality. This is an issue that applies across the Region. Additional homes mean the spread of urban areas and an increase in rural housing, with the associated threat of water pollution from a proliferation of wastewater treatment plants. This is of particular concern where ground conditions are poor and where rural housing is located within environmentally sensitive areas

Abstraction and flow regulation is a significant pressure in the Region, due to the large number of drinking water supplies from small surface water catchments.

Increase traffic/pedestrian movement can give rise to increased risk in terms of road safety.

High levels of radon buildings that are occupied by people pose a risk to human health within certain areas of the Region. This is of particular concern

in the case of buildings erected prior to the change in the Building Regulations in 1998 where radon levels are relatively high and where radon control measures have not been undertaken.

Noise pollution has not been raised as a significant concern at a regional level.

7.4 Soil

Precipitation changes, predicted as one of the global warming impacts on Ireland, could have significant implications for slope stability and landslides and their resultant impacts on water management activities.

Eroded soil washed into rivers during heavy rainfall contains an increased nutrient content, which can damage the balance of nutrient poor, aquatic ecosystems by shifting their species composition, supporting more nutrient-loving species. This can lead to the eutrophication of rivers and lakes. Considering the East/West split in terms of the affects of climate changes mentioned above, the impacts of soil erosion and soil stability is likely to vary accordingly across the Region. As discussed previously, extraction activities, when mismanaged, are resulting in pressures on water quality. In particular, peat cutting can be damaging to vegetation, hydrology and landscape.

7.5 Water

The main pressures on surface and groundwater quality within the Region are point and diffuse, physical modifications, climate change and other local issues. Point and diffuse sources include; wastewater from urban and rural developments including; industrial discharges, soiled surface water, landfills, quarries, contaminated sites, agriculture, wastewater from substandard wastewater units, forestry, discharge of dangerous substances and illegal dumping.

Inputs of nutrients, namely phosphorous and nitrogen, at concentrations in excess of natural levels, resulting in over-enrichment and eutrophication present on of the most significant risks to water quality within the Region.

The protection of sources of drinking water, the protection of bathing waters and the protection of fishing stocks is of particular concern within the Region.

The protection and improvement of water quality crosses a number of environmental topic areas including health and biodiversity and is a major environmental concern.

The integration of the aims and objectives of the River Basin District Management Plans into the RPG's is a key consideration in terms securing good water quality standards within the Region.

7.6 Climate Change and Air Quality

With regard to climate change, inputs of greenhouse gases which require the use of fossil fuels, add to the carbon dioxide emissions produced within the Region.

A dispersed settlement pattern is likely to give rise to a high dependency on the use of the car which in turn gives rise to an increase in greenhouse gases as well as other environmental problems such as unsustainable demand on non-renewal resources, air pollution, traffic congestion, road safety and increased travel times and associated quality of life issues.

Of increasing concern is the issue of flooding, the increased severity of which has been linked with climate change. An increase in the incidence and severity of flooding is evident in recent years in areas such as Dundalk, Drogheda and Carrick on Shannon are particularly vulnerable to flooding.

Currently there are no significant concerns with regard to air quality at the Regional level.

7.7 Material Assets

Changes to certain material assets located within and adjoining the Region may have environmental impacts. Such assets include; items and features of cultural and heritage value, water quality, residential and commercial developments, a wide range of community services and facilities, infrastructural services and facilities.

Increased development including residential, commercial and infrastructural works have put pressure on existing water sources with regards to quantity as well as on the treatment facilities used to treat both drinking water and wastewater. In addition, existing water quality issues are resulting in pressures on commercial shellfish and aquaculture activities along with fisheries used for recreational purposes, particularly in Donegal. Some of the physical modifications identified as material assets, such as dams and weirs, may also be resulting in pressures on fisheries used for recreational and commercial purposes.

There is a high level of vacancy within the Region in respect to new residential and commercial development arising from the unprecedented level of building activity during the last number of years. Referring to the 2006 census data, residential vacancy rates are particularly high in Leitrim (29%) and Donegal (27%). These residential and commercial properties represent a significant underutilised resource. In addition, if they are left idle they can over time deteriorate and in this regard can detract from the character of urban areas.

7.8 Cultural Heritage including Architectural and Archaeological

Development of infrastructure, in addition to development resulting from economic growth and increasing population, is placing pressure on sites or

features of architectural, archaeological, geological or cultural heritage interest. In particular certain developments on or near sites of heritage value have the potential to have a negative impact on the integrity of these sites.

The pace and scale of urban development has placed pressure on the urban form and character of many centres throughout the region. Inappropriate urban design and layout including residential and commercial developments have impacted on the heritage and character of towns and villages. Urban sprawl has had a significant adverse impact on the urban form and character of many urban centres, including smaller scale towns and villages within the Region. Such a pattern of development also gives rise to excessive and inefficient demand on rural infrastructural services and facilities, which has a negative impact on the vitality and viability of urban centres and leads to unsustainable patterns of travel.

7.9 Landscape

Existing pressures on landscape are primarily related to impacts on sensitive views resulting from the cumulative impacts arising from inappropriate siting and design of development works. Throughout the region there is inconsistency in the pattern, siting and design of buildings within the countryside, and is particularly evident in Counties Donegal, Cavan and Louth. The cumulative impact of insensitive development on our landscape has a significant impact on the visual amenity and rural character of the Region. This is an issue that clearly has a cross border and inter-county dimension. Anecdotal evidence suggests that more stringent controls on one-off housing within Northern Ireland has led to increased development pressure in some rural areas of the Region, particularly evident in Donegal. Pressures on our landscape mainly come from the following developments types:-

- One-off housing in the Countryside;
- Windfarms;
- Afforestation;
- Quarrying;
- Major infrastructural projects including roadworks;
- Agricultural activities, including changes in agricultural practices, and in some cases, the abandonment of farming.

There is a lack of uniformity between counties within, and adjoining the Region in terms the approach to the designation of landscapes and protected views which tends to lead to inconsistency in their management. A more uniform approach to the management of landscapes and protected views would better secure their integrity. Also a more uniform inter-county and cross border approach towards the management of development within the countryside would provide for the better management of the landscape.

7.10 Environmental Pressures in respect to each County

The following is an outline of particular environmental pressures facing each of the Counties within the Region. The pressures mentioned are not exclusive to the County under consideration, nor are they an exhaustive list. They are particular pressures associated with the individual county that have been identified during consultations to date.

Donegal

- Many of the islands within the County are covered by Natura 2000 sites, some with international protection [SPA]. Accordingly issues arise in terms of Biodiversity; Landscape; Heritage; Water . Of particular concern is the juxtaposition of shellfish growing areas to protected habitats [L. Swilly; L.Foyle; Mulroy Bay].
- Off Shore exploration may give rise to potential impacts arising from possible future shore based activities.
- Significant environmental issues may arise should the route of the A5 Dublin-Derry impact on sensitive habitats in the Lough Foyle river system. Likewise significant environmental issues may arise in the development of rail linkages between Letterkenny – Derry; Letterkenny – Sligo.
- It is acknowledged that Glenveagh National Park has a rich heritage in terms of biodiversity, flora and Fauna, cultural heritage and Landscape.
- Due to increased development pressure and possible impacts on habitats of significant importance, there is a need to develop proactive flood risk management polices that are consistent across the Region.
- There are potential impacts to be considered in relation to the development of the North West Gateway Initiative on certain habitats associated with the Swilly and Foyle catchments arising from increased in urban populations, transportation issues etc..
- There is a high level of residential vacancy within the County (27% in 2006) which gives rise to environmental issues in terms of sustainable use of resources', impacts on the urban and rural character and vitality of places.

Sligo

- Continuing development of one-off rural housing relying on wastewater treatment plants which has unknown consequences for the groundwater. Sligo's rural housing policy, especially in Rural Areas under Urban Influence, has not achieved a significant reduction in the development of new one-off housing within 10 miles of Sligo.
- Infrastructural schemes such as the expansion of runway at Regional Airport in Strandhill and the Sligo bypass could potentially impact on habitats of significant importance SAC/SPA/NHA.

- Significant environmental impacts may arise with regard to developments occurring within the wider catchments areas that flow into the wider Sligo Bay Complex of cSACs and SPAs including Sligo Bay, Drumcliff Bay and Ballisodare Bay. In this regard, habitat loss, reduced volume of water and reduced water quality is an issue.
- Radon in buildings poses a risk to public health in certain areas of the County

Leitrim

- The high level of residential vacancy (29% in 2006) represents a significant resource which, if left unused, will constitute a wasted material asset and will impact on the character and vitality of the areas where they exist. Issues of dereliction arising from abandoned or neglected developments arise.
- Many rural communities are under threat with declining populations and loss of community services and facilities. The social and cultural capital associated with rural communities living in the countryside needs to be recognised and supported.
- Certain areas within the County are under pressure from one-off housing. These areas are usually located on the periphery of towns and villages, especially along approach roads. Other pressure points would include visually sensitive areas in the vicinity of lakes and along the coastline. Issues arise in relation to pollution control, extension of services, impact on the landscape and rural character.
- Afforestation can have significant impacts on; water quality, the landscape character, biodiversity, archaeology, damage to roads and in some instances can give rise to social isolation.
- Having regard to; poor and sloping ground conditions, wetter summers and changes in farming systems, there is significant risk to ground water and surface water pollution arising from the spreading of slurry.
- Considering poor ground conditions within the County many wastewater treatment plants are under pressure to adequately treat wastewater. There are also a number of smaller scale urban centres where the pipe network has recently been installed under one contract while the treatment plants have yet to be started under a separate contract. Pressure on public finances places the completion of these schemes under threat.

Cavan

- Water pollution arising from urban run-off and disposal of wastewater from domestic, industrial and municipal wastewater treatment plants.
- Dispersed settlement pattern and associated environmental pressures

- Cumulative loss of natural habitat
- Segregation/fragmentation of habitats and loss of hedgerows
- Intensive farming
- Disruption of hydrological regime – problems for groundwater, lakes and subsequent drinking water.

Monaghan

- Proliferation of one off housing in the countryside and urban sprawl, especially in areas of strong urban influence with associated environmental problems
- Public waste water treatment plants at full capacity in some towns – risk of surface water pollution.
- Intensive agricultural activities – run off from excessive slurry spreading on poor soils and inadequate storage of effluent continues to create problems
- Diesel laundering washings – high fuel cost has resulted in an increase in this activity in the border area.
- Illegal dumping of wastes – landfill charging costs has resulted in an increase in this activity
- Draining/infilling of wetlands
- Depletion of water resources – increases in population and water usage has placed a strain on water resources
- Water quality
- Cumulative impact of development on habitats – loss of hedgerows, wetlands,
- Environmental scarring resulting from new roads (eg. N2)
- Environmental scarring from mineral extraction – numerous rock quarries in the Co. Monaghan. There is also the prospect of gold mining.

Louth

- Settlement coalescence, ribbon development and one-off housing, poses a significant threat to the sustainable development of the County having regard to its relatively small land mass.
- There are significant areas of floodplain particularly in the environs of both Dundalk and Drogheda. The county as a whole is at risk from several sources of flooding including river and estuarine flooding however, the most significant threat posed by flooding is by way of coastal flooding particularly during storm surges
- Water supply constraints due to high demand in South Louth and limits to supply from the Boyne.
- Radon in buildings poses a risk to public health in certain areas of the County. The bulk of the Cooley Peninsula together with an area west of Dundalk incorporating the villages of Knockbridge and Tallanstown to the County Monaghan border exceed the reference radon level.

8.0 Flood Risk Assessment

There are many areas within the Region, including towns and villages, that are already at risk from periodic flooding. The effects of climate change, such as more severe rainfall events and rising sea levels, will increase these risks and may put other areas at risk that may not have flooded in the past. Adapting to the reality of climate change therefore requires even more vigilance in ensuring that risks of flooding into the future are integrated into the planning process, first through the spatial planning process at regional, city and county and local levels, and also in the assessment of development proposals by planning authorities and An Bord Pleanála.

Draft Planning Guidelines for Planning Authorities in respect to flood risk management require the planning system at national, regional and local levels to:

(1) Avoid development in areas at risk of flooding by not permitting development in flood risk areas, particularly floodplains, unless where it is fully justified that there are wider sustainability grounds for appropriate development and unless the flood risk can be managed to an acceptable level without increasing flood risk elsewhere and where possible, reducing flood risk overall;

(2) Adopt a sequential approach to flood risk management based on avoidance, reduction and then mitigation of flood risk as the overall framework for assessing the location of new development in the development planning processes; and

(3) Incorporate flood risk assessment into the process of making decisions on planning applications and planning appeals.

The Government places a high degree of importance on planning and development measures as a critically important element of its overall strategic approach to flood risk management, building upon its long-standing acknowledgement in legislation as an important planning issue. The Draft Guidelines may be viewed at

<http://www.environ.ie/en/PublicationsDocuments/FileDownload,18428,en.pdf>

An increase in the incidence and severity of flooding is evident in recent years in the region with areas such as Dundalk, Drogheda and Carrick on Shannon are particularly vulnerable to flooding. Accordingly it is increasingly important to take account of flood risk in land use planning.

Regional Flood Risk Appraisal will be a key part of the Regional Planning Guidelines Review Process. It is proposed that this assessment will be suitably integrated into the Environmental Report.

9.0 Likely Evolution of the Environment in the Absence of the Implementation of the RPG's.

(This section will be completed in the Environmental Report)

10.0 Monitoring, Environmental Objectives, Indicators and Targets

Under Section 26 (1) of the Planning and Development Act 2000 – 2007 a Regional shall, not later than 6 years after the making of such guidelines and not less than once in every period of 6 years thereafter, review such guidelines and when so reviewing, it may revoke the guidelines or make new regional planning guidelines. In this regard the environmental indicators and targets presented below may be used to monitor the predicted environmental impacts of implementing the Plan.

Monitoring will be based around the objectives, indicators and targets outlined below. Monitoring at an early stage will help identify unforeseen adverse effects and the undertaking of appropriate remedial action. Monitoring measures over the period of the Guidelines can be geared towards addressing any gaps (where practicable) which are identified in the Environmental Report. It will also enable an assessment of whether the Guidelines is achieving its environmental objectives and targets and identify issues that be need to be revisited.

The list of environmental objectives is indicated in Table 9. The table is based on Table 4B of the DOEHLG Guidelines (2004). The list includes: biodiversity, population, human health, geology/soil, water, air/ climatic factors, material assets, cultural heritage/ landscape and the interrelationship between these factors. Colum 1 'Environmental Objectives' are key Strategic Environmental Objectives (SEO's) against which the Aims, Policies and Objectives can be assessed.

Table 9 Draft Environmental Objectives, Indicators and Targets

Biodiversity, Flora and Fauna		
Environmental Objectives	Indicators	Targets
B1: Conserve and enhance the diversity of habitats and species	Changes in areas of habitats or populations of flora and fauna.	No loss of favourable conservation status of habitats and species.
B2: Protect, conserve and enhance habitats, species and areas of national or international importance, including aquatic habitats and species and promote the sustainable management of habitat	Area in ha or proportion of total of NHAs/SACs/ damaged or lost as a result of development within the region.	Maintenance of favourable conservation status for all habitats and species protected under national and international legislation. Compliance with Catchment

networks.		Plans for Freshwater Pearl Mussel. Compliance with River Basin Management Plans.
Population and Human Health		
Environmental Objectives	Indicators	Targets
P1: Facilitate a good standard of health for the Region's population through; ensuring high quality residential, recreational and working environments, minimising air and noise pollution and securing proper drinking water and wastewater infrastructural facilities	Provision of employment, services and amenities within the region.	Increase in employment opportunities, services and public amenity within the region.
P2: Protect areas from increasing flood risks within the Region, upstream and downstream.	River water levels, river flow, flood extent and flood damage during flooding	Improved Flood Risk management
Water Resources		
Environmental Objectives	Indicators	Targets
W1: Protect the quality of surface and ground waters as sources of drinking water and as valuable assets for amenity and recreation. W2: Achieve and maintain required water quality standards and reduce discharges of pollutants or contamination to waters.	Water quality monitoring results by the EPA.	Improvement or at least no deterioration in levels of compliance with drinking water quality standards. Achieve "good" status i.e. 4+ for water quality by 2015 in line with the Water Framework Directive.
Soils and Material Assets		
Environmental Objectives	Indicators	Targets
S1: Avoid flood risk in selecting sites for development and mitigate the effects of floods.	Instances of flooding which cause damage to property.	No increase in flooding which causes damage to property.
S2: Maintain the quality of and access to assets such as open spaces, water resources and all other physical and social infrastructure.	Access to public amenities and visitor numbers.	Increased usage of Waterway Corridors as a public amenity.
Cultural Heritage and Landscape		
Environmental Objectives	Indicators	Targets

C1: Protect and conserve the integrity and setting of features of architectural and archaeological heritage.	<p>Number of structures in the RPS and NIAH County Inventory.</p> <p>Number of Monuments in the RMP and areas of archaeological potential which have been recorded or subject to exploration as a result of development.</p> <p>Number of structures in the RPS or NIAH or Monuments, the fabric or setting of which has been damaged or diminished by developments.</p>	<p>To maintain and increase the number of architectural and archaeological features recorded and protected.</p> <p>No damage occurring to structures or monuments or their character or setting due to development.</p>
C2: Conserve and enhance valued natural and historic landscape features.	Total area of land that is subject to nature or landscape conservation designations	Increase or no change in the area of nature and landscape conservation designations.
C3: Protect and conserve the quality, character and distinctiveness of landscape including demesne landscapes and minimise negative visual impacts from development.	<p>The scale and degree to which visually vulnerable areas or scenic landscapes have been affected by development.</p> <p>The scale and level of development within demesne landscapes.</p>	<p>No negative visual impacts from development on visually vulnerable areas or scenic landscapes.</p> <p>Appropriate Heritage Appraisal and Landscape Capacity Assessment to inform any future development of demesne landscapes.</p>
Air and Climatic Factors		
Environmental Objectives	Indicators	Targets
A1: Minimise emission of greenhouse gases to contribute to a reduction and avoidance of human induced global climate change.	Increased use of renewable energy sources and public transport.	Attain targets in National and County Climate Change Strategies

11.0 Assessment of Aims, Policies and Objectives

This section will examine the potential effects of implementing the Guidelines on the environment. This is achieved through the examination of each Policy, Objective, and Strategy proposed by the Guidelines under headings that indicate whether the implementation of the Guidelines is likely to improve, conflict or have a neutral effect on the environment (see table below).

Based on an understanding of the existing and emerging environmental conditions in the Region, a series of tentative Strategic Environmental Objectives have been developed to assess the potential effects of the implementation of the Guidelines on the environment.

The SEOs are used as standards against which the development strategies, policies and objectives of the Guidelines can be evaluated in order to help identify areas in which significant adverse impacts are likely to occur, if unmitigated against.

The SEOs will be applied to the relevant policies and objectives of the Guidelines and a matrix will be formed giving a clear indication of the potential environmental effects of the Guidelines

Table 10 Criteria for appraising the effect of Plan provisions on Strategic Environmental Objectives

Probable Conflict with status of SEOs – unlikely to be mitigated	Potential Conflict with status of SEOs	Uncertain interaction with status of SEOs	Neutral interaction with status of SEOs	No Likely interaction with status of SEOs	Likely to Improve status of SEOs
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Table 11 Strategic Environmental Objectives (SEOs)

SEO Code	Strategic Environmental Objective
SEO B1:	Conserve and promote the diversity of habitats and protected species
SEO B2:	Protect, conserve and enhance habitats, species and areas of national or international importance and promote the sustainable management of habitat networks.
SEO P1:	Facilitate a high standard of living for Regions population by; ensuring high quality residential, recreational and working environments, minimising air and noise pollution and securing proper drinking water and wastewater infrastructural facilities
SEO W1:	Protect the quality of surface and ground waters as sources of drinking water and as valuable assets for amenity and recreation.
SEO W2:	Achieve and maintain required water quality standards and reduce discharges of pollutants or contaminants to waters
SEO S1:	Maximise the use of brownfield lands and the existing built environment to reduce the need to develop Greenfield lands
SEO S2:	Promote the principles of waste prevention, minimisation, reuse, recycling, energy recovery and the environmentally responsible disposal of residual waste
SEO C1:	Conserve and enhance the archaeological, natural, built and cultural heritage of the county for present and future generations
SEO C2:	Conserve and enhance valued natural and historic landscape features
SEO A1:	Encourage walking and cycling as an alternative to car use.
SEO A2:	Minimise emission of greenhouse gases to contribute to a reduction and avoidance of human induced global climate change.
SEO A3:	Encourage energy efficiency in building design and maximise the use of renewable energy forms

Table 12 Assessment of Aims, Policies and Objectives

Aims, Policies and Objectives	Probable Conflict with status of SEOs – unlikely to be mitigated	Potential Conflict with status of SEOs – likely to be mitigated by measures outlined below.	Uncertain interaction with status of SEOs	Neutral interaction with status of SEOs	No Likely interaction with status of SEOs	Likely to Improve status of SEOs

12. Mitigation Measures

Schedule 2B of the Planning and Development (SEA) Regulations 2004 requires that consideration be given to; “the measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan”. Mitigation involves ameliorating significant negative effects and enhancing positive ones. The EPA Guidelines on SEA (2003) state that mitigation; “may involve preventing impacts altogether, reducing their magnitude as much as possible and/or probability of occurrence, or putting in place measures to remedy effects after they have occurred, or to compensate for them by providing environmental benefits elsewhere”. It is important to note that Strategic Environmental Assessment is an integral part of the making of the Guidelines and that this is an iterative process. Consequently the environmental report will continue to influence the making of the Guidelines.

The Guidelines will incorporate aims, objectives and policies that are founded on the principle of sustainable development. In particular the Guidelines have been formulated with a view to protecting the environment and avoiding potentially adverse impacts. Remaining potentially adverse conflicts or impacts may be characterised as ‘residual impacts’. These are unavoidable potential impacts that remain after all mitigation measures have been considered. The majority of these are potential impacts, which are likely to be capable of further mitigation through careful, detailed implementation of best practices in terms of development management process and the implementation of County Development Plans, Local Area Plans, Framework Plans, other Plans and Guidelines.

Appendix 1 Information to be contained in an Environmental Report

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—

- (a) an outline of the contents and main objectives of the plan and relationship with other relevant plans;
 - (b) the relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan;
 - (c) the environmental characteristics of areas likely to be significantly affected;
 - (d) 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 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;
- ¹ These effects should include secondary, cumulative, synergistic, short, medium and long-term, permanent and temporary, positive and negative effects.
- (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;
 - (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."

Source: *Planning and Development (Strategic Environmental Assessment) Regulations 2004 S.I. No 436 of 2004.*