

Section 4 Strategic Environmental Objectives

4.1 introduction

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

SEOs are distinct from the objectives of the Plan - although they will often overlap - and are developed from international, national and regional policies, which generally govern environmental protection objectives. Such policies include those of various European Directives, which have been transposed into Irish law, all of which are intended to be implemented at a local level within the Arklow Town and Environs Development Plan.

The SEA Directive requires that the evaluation of plans be focused upon the relevant aspects of the environmental characteristics of areas likely to be significantly affected. In compliance with this requirement, the SEA has focused upon the most relevant aspects of the environmental characteristics within and surrounding Arklow Town and Environs. SEOs relating to these environmental characteristics have been identified and developed for the SEA. Most attention has been given to environmental components, which are likely to be impacted as a result of implementation of a Development Plan for Arklow Town and Environs.

A number of SEOs are linked to indicators which can facilitate monitoring the environmental effects of implementing the Plan when adopted, as well as to targets which the Plan can help work towards.

The primary source used in formulating the SEOs was Table 4B of the SEA Guidelines (DEHLG, 2004). This list has been amended to give affect to objectives that are considered relevant to the receiving environment of Arklow Town and Environs. The use of SEOs, although not a statutory requirement, does fulfil obligations set out in Schedule 2B of the Planning and Development (Strategic Environmental Assessment) Regulations 2004 (SI No. 436 of 2004).

4.2 Biodiversity Flora and Fauna:

4.2.1 International, European and National Strategic Actions

4.2.2 UN Convention on Biological Diversity (CBD) 1992

The United Nations Convention on Biological Diversity 1992 requires the promotion of the conservation and sustainable use of biodiversity.

4.2.3 National Biodiversity Plan 2002

The preparation and implementation of Ireland's National Biodiversity Plan 2002 complies with an obligation under the UN Convention on Biological Diversity. The overall goal of the Plan is to secure the conservation, including where possible the enhancement and sustainable use of biological diversity in Ireland and to contribute to conservation and sustainable use of biodiversity globally. Objectives following on from this goal are to:

- ⇒ Conserve habitat diversity, including all sites of special biodiversity importance;
- ⇒ Conserve species diversity;
- ⇒ Conserve genetic diversity, both wild and domesticated; and
- ⇒ Contribute to the conservation and sustainable use of biodiversity and to advancing other obligations of the CBD in the EU, regionally and internationally.

4.2.4 Birds Directive 1979

The 1979 European Council Directive on the Conservation of Wild Birds (79/409/EEC), referred to as the Birds Directive, - as well as its amending acts - seeks to: protect, manage and regulate all bird species naturally living in the wild within the European territory of the Member States, including the eggs of these birds, their nests and their habitats: and regulate the exploitation of these species. Special Protection Areas (SPAs) are provided protection under the Directive and have been designated by the DEHLG due to their conservation value for birds of importance in the European Union.

4.2.5 Habitats Directive 1992

The European Council Directive on the Conservation of natural habitats and of wild fauna and flora (92/43/EEC), referred to as the Habitats Directive, aims to ensure the conservation of certain natural habitats and species which are at favourable conservation status. Article 10 of the Habitats Directive recognises the importance of ecological networks as corridors and stepping-stones for wildlife, including for migration, dispersal and genetic exchange of species of flora and fauna. The Directive requires that ecological connectivity and areas of ecological

value outside the network of designated ecological sites are maintained and it recognises the need for the management of these areas through land use planning and development policies.

Special Areas of Conservation (SACs) are designated and protected under the Habitats Directive 1992 (92/43/EEC) due to their conservation value for habitats and species of importance in the European Union.

The obligation to undertake Appropriate Assessment derives from Article 6(3) and 6(4) of the Habitats Directive 92/43/EEC. Appropriate Assessment is a focused and detailed impact assessment of the implications of a plan or project, alone and in combination with other plans and projects, on the integrity of a Natura 2000 site in view of its conservation objectives.

The Habitats Directive seeks to establish Natura 2000, a network of protected areas throughout the EU. SACs together with SPAs - which are designated under the 1979 Birds Directive - form Natura 2000.

[4.2.6 Wildlife Act 1976 and Wildlife \(Amendment\) Act 2000](#)

The basic designation for wildlife is the Natural Heritage Area (NHA). They cover nationally important semi-natural and natural habitats, landforms or geomorphological features, wildlife plant and animal species or a diversity of these natural attributes. Under the Wildlife Amendment Act (2000), NHAs are legally protected from damage from the date they are formally proposed for designation.

Proposed NHAs (pNHAs) were published on a non-statutory basis in 1995, but have not since been statutorily proposed or designated - designation will proceed on a phased basis over the coming years.

Prior to statutory designation, pNHAs are subject to limited protection, in the form of:

- ⇒ Rural Environment Protection Scheme (REPS) plans which require conservation of pNHAs and operate for a period of 5 years;
- ⇒ Forest Service requirement for NPWS approval before they will pay afforestation grants on pNHA lands; and/or,
- ⇒ Recognition of the ecological value of pNHAs by Planning and Licensing Authorities.

4.2.7 SEOs, Indicators and Targets

The following SEOs, Indicators and Targets have been identified and developed with regard to the objectives of the above strategic actions and the environmental baseline described in Section 3.

SEO B1	To ensure compliance with the Habitats Directive and National Biodiversity Plan with regard to protected species and habitats both within and outside of designated sites in accordance with the provisions of Articles 6 and 10 of the Habitats Directive.
Indicator B1:	Conservation status of habitats and species as assessed under Article 17 of the Habitats Directive
Target B1:	Maintenance of favourable conservation status for all habitats and species protected under national and international legislation

SEO B2	To avoid significant adverse impacts, including direct, cumulative and indirect impacts, to relevant habitats, geological features, species or their sustaining resources in designated ecological sites such as Arklow Marsh, Arklow Rock Askintinny and Arklow Sand Dunes pNHA, by development within or adjacent to these sites
Indicator B2:	Number of significant adverse impacts, including direct, cumulative and indirect impacts, to relevant habitats, geological features, species or their sustaining resources in designated ecological sites by development within or adjacent to these sites as a result of implementation of the DP
Target B2:	No significant adverse impacts, including direct, cumulative and indirect impacts, to relevant habitats, geological features, species or their sustaining resources in designated ecological sites by development within or adjacent to these sites as a result of implementation of the DP

SEO B3	To ensure compliance with Article 10 of the Habitats Directive with regard to the management of features of the landscape – by sustaining, enhancing or - where relevant - preventing the loss of ecological networks or parts thereof which provide significant connectivity between areas of local biodiversity
Indicator B3:	Percentage of relevant habitats and designated ecological sites lost as a result of implementation of the DP.
Target B3:	No losses of relevant habitats, species or their sustaining resources in designated ecological sites as a result of implementation of the DP.

Note: The impact of implementing the Plan on aquatic biodiversity and flora and fauna is also influenced by both impacts upon the quality of surface water bodies - which relates to SEO W-S - and the provision of appropriate levels of waste water treatment infrastructure - this relates to SEO WW.

4.3 Population and Human Health

4.3.1 Population

In order to promote sustainable development and allow for public transport systems to function more effectively - as promoted by higher-level land use strategic actions including the National Spatial Strategy - it is essential to consolidate the physical growth of settlements within the Town.

Within the Town this can be achieved through the development of vacant, derelict and underutilised lands, in particular where they are in close proximity to public transport routes.

The DEHLG's Residential Density Guidelines 1999 and the DEHLG's Sustainable Residential Development in Urban Areas Guidelines 2008 recommend planning authorities to promote higher residential densities, particularly in redeveloping 'brownfield' sites and in proximity to town centres and public transport corridors.

The impacts of implementing the Development Plan on both the spatial distribution of population and the nature of development with regard to greenfield and brownfield development relates to SEO R1, which aims to maximise sustainable brownfield development and minimise greenfield development.

4.3.2 Human Health

The impact of implementing the Development Plan on human health is determined by the impacts, which the Plan will have upon environmental components. Impacts, which the Plan might have upon these components, would be influenced by:

- ⇒ The extent to which new development is accompanied by appropriate infrastructure - this relates to SEOs WW and DW;
- ⇒ Impacts upon the quality of water bodies - these relate to SEOs WS (surface waters) and WG (Ground waters);

- ⇒ The extent of development provided by the Plan which would increase flood risk - this relates to SEO WF (Flooding) and,
- ⇒ The interaction between human beings and the noise generated by the land uses provided for by the Plan.

4.3.3 Emission Limits

Emission limits for discharges to air, soil and water are set with regards to internationally recognised exposure limit values. These are generally set to be many times the safe exposure limit - in order to provide protection. In the event that a land-use plan began to have adverse health effects on surrounding populations it is likely that it would have been identified as being in breach of such emission standards at a very early stage - and long before the manifestation of any adverse health effects in the population. Nonetheless for the sake of consistency with the requirements of the SEA Regulations this section includes an objective, indicator and target for health.

4.3.4 SEOs, Indicators and Targets

SEO HH1	To protect human health from hazards or nuisances arising from exposure to incompatible land uses in particular from the re-use of brown field lands in areas where previous uses may have contaminated lands such as the Water front Development Zone in Arklow.
Indicator HH1	Occurrence (any) of a spatially concentrated deterioration in human health arising from environmental factors as identified by the Health Service Executive (HSE) and Environmental Protection Agency (EPA)
Target HH1	No spatial concentrations of health problems arising from environmental factors as a result of implementing the Plan
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SEO R1	Maximise the sustainable re-use of brownfield lands, and maximise the use of the existing built environment rather than developing greenfield lands
Indicator R1	Area of brownfield lands developed over the Development Plan's lifespan
Target R1:	Reduced availability of brownfield land (subject to availability on the open market, the demand for such land and the ability for such lands to be sustainably re-used) at the end of the Development Plan lifespan

4.4 Soils

4.4.1 Proposal for a Soil Framework Directive

To date, there is no legislation which is specific to the protection of soil resources and soil protection is addressed indirectly and/or within sectoral policies: water, waste, chemicals, industrial pollution prevention, nature protection, pesticides and agriculture.

However, there is currently an EU Thematic Strategy on the protection of soil, which includes a proposal for a Soil Framework Directive which proposes common principles for protecting soils across the EU.

Article 5 of the proposed Directive states that, for the purposes of preserving the various functions of soil; sealing, the development of artificial surfaces on top of soil resources, should be limited. The proposed Directive suggests that this may be achieved through rehabilitating brownfield sites, thus reducing the depletion of greenfield sites. The proposed Directive also states soil should be used in a sustainable manner which preserves its capacity to deliver ecological, economic and social services, while maintaining its functions so that future generations can meet their needs.

4.5 Water

4.5.1 Water Framework Directive 2000

Since 2000, Water Management in the EU has been directed by the Water Framework Directive 2000/60/EC (WFD). The WFD has been transposed into Irish legislation by the European Communities (Water Policy) Regulations 2003 (SI No. 722 of 2003). The WFD requires that all member states implement the necessary measures to prevent deterioration of the status of all waters - surface, ground, estuarine and coastal - and protect, enhance and restore all waters with the aim of achieving good status by 2015.

4.5.2 Quality Standards for Surface Waters

The European Communities Environmental Objectives (Surface Waters) Regulations 2009 (SI No. 272 of 2009) is the final major piece of legislation needed to support the WFD and gives statutory effect to Directive 2008/105/EC on environmental quality standards in the field of water policy. The Surface Waters Regulations also give further effect to the WFD, establishing a framework for Community action in the field of water policy and Directive 2006/11/EC on pollution caused by certain dangerous substances discharged into the aquatic environment of the Community.

The Surface Waters Regulations apply to all surface waters - including lakes, rivers, canals, transitional waters, and coastal waters - and provide, inter alia, for:

- ⇒ The establishment of legally binding quality objectives for all surface waters and environmental quality standards for pollutants;
- ⇒ The examination and where appropriate, review of existing discharge authorizations by Public Authorities to ensure that the emission limits laid down in authorisations support compliance with the new water quality objectives/standards;
- ⇒ The classification of surface water bodies by the EPA for the purposes of the Water Framework Directive;
- ⇒ The establishment of inventories of priority substances by the EPA, and;
- ⇒ The drawing up of pollution reduction plans by coordinating local authorities (in consultation with the EPA) to reduce pollution by priority substances and to cease and/or phase out discharges, emissions or losses of priority hazardous substances.

In addition, the Regulations require that a public authority shall not, in the performance of its functions, undertake those functions in a manner that knowingly causes or allows deterioration in the chemical status or ecological status (or ecological potential as the case may be) of a body of surface water.

In order to satisfy the overall WFD objective of 'good status', a surface water body must achieve the requirements of good ecological¹ and chemical² status.

4.5.3 Quality Standards and Threshold Values for Ground Water

Detailed provisions to achieve the aims of the WFD for ground water have been presented in a Groundwater Daughter Directive (Directive 2006/118/EC on the protection of groundwater against pollution and deterioration).

This Directive sets up environmental objectives of good groundwater quantitative and chemical status, as well as ensuring a continuity to the 1980 Groundwater Directive (Directive 80/68/EEC on the protection of groundwater against pollution caused by dangerous substances) which is due to be repealed under the WFD by the end of 2013.

¹ Ecological status comprises: biological quality elements, physiochemical conditions and hydromorphological quality elements. The overall ecological status of the water body is determined by the lowest level of status achieved across all quality elements.

² Chemical status assessment is based on compliance with the standards laid down for priority substances by Directive 2008/105/EC on environmental quality standards in the field of water policy (the Surface Waters Regulations give effect to the environmental standards established by this Directive).

Article 3 of the 2006 Directive required that the assessment of the chemical status of groundwater use both quality standards identified in Annex I of the Directive and threshold values to be set by individual member states.

Groundwater quality standards are environmental quality standards expressed as the concentration of a particular pollutant, group of pollutants or indicator of pollution in groundwater, which should not be exceeded in order to protect human health and the environment. Annex I of the Directive sets standards for two pollutants: Nitrates - 50mg/l - and; Active substances in pesticides³, including their relevant metabolites, degradation and reaction products - 0,1 µg/l and 0,5 µg/l (total⁴).

Irish groundwater threshold values⁵ are currently in the process of being set by the EPA.

4.5.4 Bathing Water

EU Mandatory and Guide levels are set out for bathing waters in the *1976 Bathing Water Directive* (Directive 76/160/EEC) as implemented in Ireland by the Quality of Bathing Water Regulations, 1992, (SI No. 155 of 1992). The purpose of the Bathing Water Regulations is the protection of human health, local authorities.

Mandatory Values are values, which must be observed if the bathing area is to be deemed compliant with the Directive. Compliance with guide values exceeds guidance with mandatory values and can be regarded as quality objectives which bathing sites should endeavour to achieve.

A new *2006 Bathing Water Directive* (2006/7/EC) - which entered into force in March 2008 - revises the 1976 Directive with the purpose of: preserving, protecting and improving the quality of the environment and protecting human health by complementing the Water Framework Directive (2000/60/EC). The 2006 Bathing Water Directive is implemented by the Bathing Water Quality Regulations 2008 (SI No. 79) of 2008.

³ 'Pesticides' means plant protection products and biocidal products as defined in Article 2 of Directive 91/414/EEC and in Article 2 of Directive 98/8/EC, respectively.

⁴ 'Total' means the sum of all individual pesticides detected and quantified in the monitoring procedure, including their relevant metabolites, degradation and reaction products.

⁵ Threshold values are to be established by Member States for all pollutants and indicators of pollution, which characterise groundwater bodies classified as being at risk of failing to achieve good groundwater chemical status under the WFD. Threshold values are required to be established in a way that, should the monitoring results at a representative monitoring point exceed the thresholds, this will indicate a risk that one or more of the conditions for good groundwater chemical status - with regard to the ability of groundwater to support human uses and with regard to waters used for the abstraction of drinking water - are not being met.

The 2006 Directive establishes a new classification system for bathing water quality based on four classifications 'poor', 'sufficient', 'good' and 'excellent' and generally requires that a classification of 'sufficient' be achieved by 2015 for all bathing waters.

The new classification system is currently being introduced and related to current EU guide and mandatory standards specified in the 1976 EU Bathing Water Directive (76/160/EEC) by the EPA⁶. The 'good' classification is related to compliance with guide and mandatory values, the 'sufficient' classification is related to compliance with the mandatory values only, whereas the 'poor' classification is non-compliance with mandatory values. The 1976 Directive does not have bathing water standards that equate to an 'excellent' classification.

Having regard to Bathing water quality within the plan area it should be noted that the EPA do not have any monitoring points for coastal waters adjoining the plan area.

4.6 Flooding

4.6.1 EU Flood Directive:

European Directive 2007/60/EC on the assessment and management of flood risks aims to reduce and manage the risks that floods pose to human health, the environment, cultural heritage and economic activity. The Directive applies to inland waters as well as all coastal waters across the whole territory of the EU.

The Directive requires Member States to carry out a preliminary assessment by 2011 in order to identify the river basins and associated coastal areas at risk of flooding. For such zones flood risk maps are required to be drawn up by 2013. By 2015 flood risk management plans focused on prevention, protection and preparedness must be established by 2015.

The Directive is to be carried out in coordination with the Water Framework Directive and flood risk management plans and river basin management plans should be coordinated.

4.6.2 DEHLG Flood Risk Management Guidelines

In November 2009 the DEHLG issued *The Planning System and Flood Risk Management Guidelines* for Planning Authorities. These are aimed at ensuring a more consistent, rigorous and systematic approach, which will fully incorporate flood risk assessment and management into the planning system.

⁶ Transitional measures are in place until the new Bathing Water Quality Regulations 2008 (SI No. 79 of 2008) are fully implemented

The Guidelines require the planning system to, among other things:

- ⇒ Avoid development in areas at risk of flooding, particularly flood plains, unless there are proven sustainability grounds that justify appropriate development and where flood risk can be reduced or managed to an acceptable level, without increasing flood risk elsewhere;
- ⇒ Adopt a sequential approach to flood risk management when assessing the location for new development based on avoidance, reduction and mitigation of flood risk; and,
- ⇒ Incorporate flood risk assessment into the process of making decisions on planning applications and planning appeals.

4.6.3 SEOs, Indicators and Targets

The following SEOs, Indicators and Targets have been identified and developed with regard to the objectives of the above strategic actions and the environmental baseline described in Section 3.

SEO Code W-S	To maintain and improve, where possible, the quality of Rivers, and other surface waters
Indicators W-S:	Classification of Overall Status (comprised of ecological and chemical status) under the European Communities Environmental Objectives (Surface Waters) Regulations 2009 (SI No. 272 of 2009)
Target W-S:	To achieve 'good status' ⁷ in all bodies of surface waters by 2015 and to not knowingly allow deterioration in the status of any surface water
Indicators W-S(2)	Poor, Sufficient, Good and Excellent classifications of bathing water as set by Directive 2006/7/EC
Target W-S(2)	To achieve - as a minimum - the 'Sufficient' classification as set by Directive 2006/7/EC, and where possible to achieve the 'Good' or 'Excellent' classifications

⁷ Good status as defined by the WFD equates to approximately the following in the current national schemes of classification as set out by the EPA:

- *Q4* in the biological classification of *rivers*;
- *Mesotrophic* in the classification of *lakes*; and,
- *Unpolluted* status in the Assessment of Trophic Status of *Estuaries and Bays* in Ireland (ATSEBI).

SEO Code W-G	To prevent pollution and contamination of ground water
Indicators W-G:	Groundwater Quality Standards and Threshold Values under Directive 2006/118/EC
Target W-G:	Compliance with Groundwater Quality Standards and Threshold Values under Directive 2006/118/EC

SEO Code W-F	To prevent development on lands which pose - or are likely to pose in the future - a significant flood risk
Indicators W-F:	Number of developments granted permission on lands which pose - or are likely to pose in the future - a significant flood risk
Target W-F:	Minimise developments granted permission on lands which pose - or are likely to pose in the future - a significant flood risk in compliance with <i>The Planning System and Flood Risk Management Guidelines</i> for Planning Authorities

4.7 Material Assets

4.7.1 Water Services Act 2007

The Water Services Act 2007 (SI No. 30 of 2007) incorporates a comprehensive review, update and consolidation of all existing water services⁸ legislation, and facilitates the establishment of a comprehensive supervisory regime to ensure compliance with specified performance standards.

Section 36 of the Act provides for the making of 6-year Water Services Strategic Plans (WSSPs) in order to:

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

⁸ Services, including the provision of water intended for human consumption, which provide storage, treatment or distribution of surface water, groundwater or water supplied by a water services authority, or waste water collection, storage, treatment or disposal.

WSSPs are to be made by Water Services Authorities for their functional areas. The Act allows for two or more Water Services Authorities to jointly make a WSSP in relation to all of their combined functional areas, or parts thereof.

WSSPs are required to include information on the following:

- ⇒ Drinking water quality;
- ⇒ The prevention or abatement of risk to human health or the environment;
- ⇒ Current and projected need for water services;
- ⇒ Arrangements in place or planned for the provision of water services;
- ⇒ Shortfalls in the provision of water services;
- ⇒ Water conservation measures in place or planned;
- ⇒ Monitoring arrangements;
- ⇒ Asset management planning; and,
- ⇒ Income and expenditure.

Section 36 (9) of the Act allows for the making of regulations prescribing the manner in which any matter is to be set out or addressed in a water services strategic plan, notification or consultation requirements and procedures or associated time limits, prior to and after its making.

[4.7.2 Urban Waste Water Treatment Directive 2001](#)

The treatment of wastewater is governed by the Urban Waste Water Treatment Directive (91/271/EEC) (amended by Directive 98/15/EEC) transposed into Irish law by the Urban Waste Water Treatment Regulations 2001 (SI No. 254 of 2001). The Directive aims to protect the environment from the adverse effects of the wastewater discharges by ensuring that wastewater is appropriately treated before it is discharged to the environment. The Regulations stipulate that sewage treatment facilities are in place in all towns by 2005.

Appropriate treatment is essential in order to meet the requirements of the Water Framework Directive.

[4.7.3 Drinking Water Regulations 2007](#)

The environmental baseline with regard to drinking water demand and supply is identified in Section 3 and measures have been integrated into the Development Plan in order to help ensure a clean and wholesome water supply.

The European Communities (Drinking Water) Regulations (No. 2) 2007 require the compliance of water intended for human consumption with 48 parameters.

4.7.4 SEOs, Indicators and Target

The following SEOs, Indicators and Targets have been identified and developed with regard to the objectives of the above strategic actions and the environmental baseline described in Section 3.

Wastewater Infrastructure

SEO Code WW	To serve new development with appropriate waste water treatment
Indicators WW:	Number of new developments granted permission which can be adequately served with waste water treatment over the lifetime of the Plan
Target WW:	All new developments granted permission to be connected to and adequately served by waste water treatment over the lifetime of the Plan
Indicators WW(2)	Preparation of a Water Services Strategic Plan - in compliance with the Water Services Act - for Arklow and its Environs.
Target WW(2)	For the Council to prepare a Water Services Strategic Plan in compliance with the Water Services Act

Drinking Water

SEO Code DW	To serve development within the Plan area with drinking water that is both wholesome and clean
Indicators DW:	Number of non-compliances with the 48 parameters identified in the European Communities (Drinking Water) Regulations (No. 2) 2007 which present a potential danger to human health
Target DW:	No non-compliances with the 48 parameters identified in the European Communities (Drinking Water) Regulations (No. 2) 2007 which present a potential danger to human health as a result of implementing the Plan
Indicators DW(2)	Preparation of a Water Services Strategic Plan - in compliance with the Water Services Act - for the functional area of the Council
Target DW(2)	For the Council to prepare a Water Services Strategic Plan in compliance with the Water Services Act

4.8 Air and Climatic Factors:

4.8.1 Introduction

The impact of implementing the Plan on air quality and climatic factors will be determined by the impacts which the Plan has upon the traffic levels which relate to SEOs C1 and C2.

Travel is the source of most:

- ⇒ Noise;
- ⇒ Air emissions; and,
- ⇒ Energy use (41.4% oil equivalent of final energy consumption in 2006 was taken up by transport - sourced from Sustainable Energy Ireland's online Energy Statistics Data Bank).

Land-use planning contributes to what number and what extent of journeys occur. By addressing journey time through land use planning, increases in greenhouse gases can be minimised. Furthermore, by concentrating populations, greenfield development - and its associated impacts - can be minimised and the cost of service provision can be reduced.

4.8.2 Air Quality

In order to protect human health, vegetation and ecosystems, EU Directives set down air quality standards in Ireland and the other Member States for a wide variety of pollutants. These pollutants are generated through fuel combustion, in space heating, traffic, electricity generation and industry and, in sufficient amounts, could affect the well being of the Town's inhabitants. The EU Directives include details regarding how ambient air quality should be monitored, assessed and managed.

The principles to this European approach are set out under the Air Quality Framework Directive 1996 while four daughter Directives lay down limits or thresholds for specific pollutants.

4.8.3 Climatic Factors

In order to reduce greenhouse gas emissions the internationally agreed Kyoto Protocol established emissions reduction targets for developing countries. Ireland's emission target for greenhouse gases is to limit the increase in their combined emissions during the five-year period 2008-2012 to 13 per cent above 1990 levels.

4.8.4 Noise

Noise is unwanted sound. Traffic noise alone is harming today the health of almost one third of Europeans⁹.

The Noise Directive - Directive 2002/49/EC relating to the assessment and management of environmental noise - is part of an EU strategy setting out to reduce the number of people affected by noise in the longer term and to provide a framework for developing existing Community policy on noise reduction from source.

The Directive requires competent authorities in Member States to:

- Draw up *strategic noise maps* for major roads, railways, airports and agglomerations, using harmonised noise indicators¹⁰ and use these maps to assess the number of people which may be impacted upon as a result of excessive noise levels;
- Draw up action plans to reduce noise where necessary and maintain environmental noise quality where it is good; and,
- Inform and consult the public about noise exposure, its effects, and the measures considered to address noise.

The Directive does not set any limit value, nor does it prescribe the measures to be used in the action plans, which remain at the discretion of the competent authorities.

4.8.5 SEOs, Indicators and Targets

The following SEOs, Indicators and Targets have been identified and developed with regard to the objectives of the above strategic actions and the environmental baseline described in Section 3.

⁹ World Health Organization Regional Office for Europe (2003) *Technical meeting on exposure-response relationships of noise on health 19-21 September 2002* Bonn, Germany Bonn: WHO

¹⁰ [L_{den} (day-evening-night equivalent level) and L_{night} (night equivalent level)]

It is noted that - in addition to being addressed as part of this assessment - traffic issues will also be addressed by lower-tier plans and at the level of individual projects by the development management process and, for certain projects, by EIA.

SEO Code AQ1	To reduce travel related greenhouse emissions to air
Indicators AQ1:	Percentage of population within the Town travelling to work or school by public transport or non-mechanical means
Target AQ1:	An increase in the percentage of the population travelling to work or school by public transport or non-mechanical means
Indicators AQ1(2)¹¹	Average distance travelled to work or school by the population of the Town
Target AQ1(2)	A decrease in the average distance travelled to work or school by the population of the Town

SEO Code AQ2:	To reduce car dependency within the plan area by way of, inter alia, encouraging modal change from car to more sustainable forms of public transport and encouraging development which will not be dependent on private transport
The use of the SEO C2 provides a qualitative directional measure, which is used to evaluate the effects of implementing the Plan.	

4.9 Cultural Heritage:

4.9.1 Archaeological Heritage:

Valletta Convention 1992

The European Convention on Protection of the Archaeological Heritage known as the Valletta Convention of 1992. This was ratified by Ireland in 1997 and requires that appropriate consideration be given to archaeological issues at all stages of the planning and development process.

National Heritage Plan for Ireland 2002

The core objective of the National Heritage Plan for Ireland 2002¹² is to protect Ireland's heritage. In this regard the polluter pays and the precautionary principle are operable.

¹¹ As measure by the Central Statistics Office

National Monuments Acts

Archaeology in Ireland is protected under the National Monuments Acts 1930 to 2004.

Recorded monuments are protected by inclusion on the list and marked on the map which comprises the Record of Monuments and Places set out County by County under Section 12 of the National Monuments (Amendment) Act, 1994 by the Archaeological Survey of Ireland. The definition includes Zones of Archaeological Potential in towns and all other monuments of archaeological interest, which have so far been identified.

Any works at or in relation to a recorded monument requires two months notice to the Department of the Environment, Heritage and Local Government under Section 12 of the National Monuments (Amendment) Act, 1994.

Direct impacts on national monuments in State or Local Authority care or subject to a preservation order require the consent of the Minister for the Environment, Heritage and Local Government under Section 14 of the National Monuments Act 1930 as amended by Section 5 of the National Monuments (Amendment) Act 2004.

4.9.2 Architectural Heritage:

Planning and Development Act 2000-2007

Records of Protected Structures (RPSs) are legislated for under Section 51 of the Planning and Development Act 2000 and include structures which form part of the architectural heritage and which are of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest.

Architectural Heritage and Historic Monuments Act 1999

The National Inventory of Architectural Heritage (NIAH) is a state initiative under the administration of the DEHLG which was established on a statutory basis under the provisions of the Architectural Heritage (National Inventory) and Historic Monuments (Miscellaneous Provisions) Act 1999. Its purpose is to identify, record, and evaluate the post-1700 architectural heritage of Ireland, uniformly and consistently as an aid in the protection and conservation of the built heritage. It is intended that the NIAH provides the basis for the inclusion of particular structures in RPSs.

¹² Department of Arts, Heritage, Gaeltacht and the Islands (2002) *National Heritage Plan for Ireland* Dublin: Government of Ireland

4.9.3 SEOs, Indicators and Targets

The following SEOs, Indicators and Targets have been identified and developed with regard to the objectives of the above strategic actions and the environmental baseline described in Section 3.

Archaeological Heritage:

SEO Code AH1	To protect the archaeological heritage of Arklow including entries to the Record of Monuments and Places – the towns Zone of Archaeological Potential - and the context of the above within the surrounding landscape where relevant
Indicators AH1:	Percentage of entries to the Record of Monuments and Places - including Zones of Archaeological Potential - (and their context of the above within the surrounding landscape where relevant) protected
Target AH1:	Protect entries to the Record of Monuments and Places - including Zones of Archaeological Potential - (and their context of the above within the surrounding landscape where relevant)

Architectural Heritage:

SEO Code AH2	To preserve and protect the special interest and character of Arklow's architectural heritage including entries to the Record of Protected Structures, and their context within the surrounding landscape where relevant
Indicators AH2:	Percentage of entries to the Record of Protected Structures (and/or their context within the surrounding landscape where relevant) protected
Target AH2	Protect entries to the Record of Protected Structures (and/or their context within the surrounding landscape where relevant)
Indicators AH2 (B)	Number of additions to the Record of Protected Structures and the number of additional ACAs
Target AH2 (B)	Make Additions to the Record of Protected Structures and make additional ACAs, where appropriate.

4.10 Landscape

4.10.1 Introduction

Ireland signed and ratified the European Landscape Convention (2000) in 2002 with the Convention entering into force in Ireland in 2004. The aims of the Convention include: to conserve and maintain the significant or characteristic features of a landscape, justified by its heritage value derived from its natural configuration and/or from human activity; to harmonise changes in the landscape which are brought about by social, economic and environmental processes, and to enhance landscapes.

4.10.2 Draft Wicklow County Development Plan 2010-2016

The Draft Wicklow County Development Plan classifies the Arklow Town and Environs Development Plan area as an Urban Area in terms of landscape classification. Given the plan areas location along the east coast of Wicklow the plan areas main landscape classification is determined by the Chapter 18 'Coastal Zone Management' and the objectives associated with Cell 11. This cell is described as having long sandy beaches along most of the cell, with the central harbour area the location of intensive residential and industrial development and the southern end marked by Arklow Rock. The Arklow Sand Dunes at Seabank to the north and the area around Arklow Rock – Askintinny are designated pNHAs.

The objectives for cell 11 are as follows:

1. To enhance the visual, recreational and natural amenities of the Arklow coastal area, in accordance with the policies and objectives set out in the Arklow Environs LAP and the Arklow Town Plan. (To be amalgamated through this Development Plan process).
2. To facilitate the development and enhancement of visitor and recreational facilities along the coastal area, particularly walking routes, car parking areas, signage, changing / toilet facilities and water based clubs.
3. To support and facilitate the development of marine and shipping activity in Arklow, particularly the recreational use of the existing harbour / marina and the development of a roll on-roll off port at the existing Roadstone jetty.

4.10.3 SEO, Indicator and Target

The following SEO, Indicator and Target have been identified and developed with regard to the objectives of the strategic actions mentioned above and the environmental baseline described in Section X.

SEO Code L1	To protect and avoid significant adverse impacts on the landscape of Arklow, including landscape features such as the coastal region, Arklow Sand Dunes and designated views and prospects within the plan area.
Indicators L1:	Number of complaints received from statutory consultees regarding avoidable impacts on the landscape resulting from development which is granted permission under the Plan
Target L1:	No developments permitted which result in avoidable impacts on the landscape resulting from development which is granted permission under the Plan