

CHAPTER 7

Natural Resources

7.1 Introduction

7.1.1 The county has a number of naturally occurring resources that contribute to the social and economic fabric of the county. They include water resources, the extractives industry, forestry, fisheries and renewable energy in its many forms. Water resources are dealt with in Chapter 8 and 11 of this plan. These resources are generally located in rural areas providing employment and contributing to sustainable rural communities. The continued development of these resources will serve to diversify and strengthen the economy of the county.

7.1.2 The nature and scale of the development and operations required to develop these resources can have significant environmental impacts that can damage other economic sectors such as tourism and recreation. Protecting the environment from the adverse impacts of such development is key to the development of sustainable rural communities and the preservation of the countryside.

7.1.3 Therefore, the proper planning and sustainable development of natural resources requires a balanced approach with appropriate policies for protecting and developing these resources, whilst ensuring that the adverse environmental impacts associated with such development are kept to a minimum.

Objective No.	Strategic Objectives
	It is an objective of the Council to:
NR 7-1	The development of natural resource industries Maximise the economic potential and development of the natural resources within the county while complying with the objectives and policies of this development plan.
NR 7-2	Employment Potential Maximise the employment potential of the natural resources within the county through the promotion of associated industries.
NR 7-3	Environmental Impacts Ensure that the development of natural resource is carried out in a manner that minimises any significant adverse effects on the environment and the local community.

NR 7-4	Location Ensure that the development of natural resources does not occur in a manner or in areas where the visual, ecological, or other impacts of such works would seriously injure the amenities of the area.
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7.2 Extractives Industry

7.2.1 The extractive industry provides essential raw materials for the construction industry as well as providing employment and economic growth in the local and regional economy. Reserves of suitable material are finite and extraction must take place where these reserves are found.

7.2.2 It is also the case; however, that mineral extraction can have significant environmental impacts. Typically these include traffic generation, vibration, noise, dust, water pollution, visual intrusion, and loss of groundwater supplies.

7.2.3 Proper planning and sustainable development, therefore, requires a balanced approach with appropriate policies for developing essential mineral and aggregate reserves, whilst ensuring that the adverse environmental impacts associated with mineral extraction are kept to a minimum.

Objective No.	General Extractives Objectives
	It is an objective of the Council to:
NR 7-5	The supply of aggregates Facilitate the development of the extractive industry and seek to ensure the ongoing availability of an adequate supply of aggregates for the construction industry.
NR 7-6	Environmental Impacts Minimise the adverse effects on the environment and the local community associated with aggregate extraction, processing, delivery and associated concrete production.
NR 7-7	Location Ensure that quarrying and mining does not occur in areas where the visual or other impacts of such works would seriously injure the amenities of the area or create significant adverse affects on the road network in the area.

NR 7-8	Extraction Promote the development of aggregate extraction in peripheral areas of the County.
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Quarries Register

7.2.4 Kerry County Council has now completed the process of quarry registration in accordance with Section 261 of the Planning and Development Act 2000. This process has greatly enhanced the regulation and operation of quarries throughout the County while minimising associated environmental impacts.

7.2.5 While it is the intention of the Council to facilitate the development of the extractive industry, certain areas and landscapes throughout the County, due to their sensitive nature must be protected for their amenity value.

Objective No.	Zoning
	It is an objective of the Council to:
NR 7-9	Landscape conservation Ensure that development for aggregates / mineral extraction, processing and associated concrete production will not generally be permitted in Primary Special Amenity Areas or in open or sensitive landscapes.
NR 7-10	Manufacture of aggregate products Facilitate the manufacture of aggregate based products, such as concrete blocks, pre-cast concrete etc., at the aggregate source in cases where the manufacturing process will not have an adverse environmental or residential impact.

Extraction from the Foreshore

7.2.6 The extraction of material from the foreshore, beaches, sand dunes and watercourses can have serious adverse impacts on the environment. It can alter the ecosystem in an area and in certain instances initiate or contribute to erosion. Therefore the Council will seek to prevent such extraction from occurring.

Objective No.	Protection of Foreshore
	It is an objective of the Council to:
NR 7-11	Extraction from foreshore and watercourses It is an objective of the Council to utilise its powers to prevent the extraction of material from the foreshore and watercourses

7.3 Forestry

7.3.1 Forestry is an important renewable resource with a major role to play in sustainable rural development. Over 1,300 individuals are currently in receipt of farm forestry supports in the County. In addition to the direct benefits of planting, in terms of valuable crops and employment, forestry has an important impact on rural economies through the development of related industries, locally produced sustainable energy and rural tourism opportunities. Thus, the state supports the development of the forestry sector via a number of grant schemes and initiatives.

7.3.2 The expansion of forestry is also a National objective. In Kerry, 11.5% of the land is currently afforested. The strategic plan for the development of the forestry sector *Growing for the Future* published by the Department of the Marine and Natural Resources in 1996 aims to increase the national forest estate from 9% to 17% of land cover. This target size for the sector will provide the critical mass necessary to support the range of associated processing industries, and related sectors, which provide much of the wealth and employment generated by forestry.

7.3.3 The Council, however, recognises that afforestation can have less favourable impacts unless it is appropriately located and of a scale and design that is sympathetic to the physical nature of the landscape. The Council will, therefore, in conjunction with the Forest Service, encourage the development and expansion of forestry, but in a manner that is compatible with the protection of the environment.

Objective No.	General Forestry
	It is an objective of the Council to:
NR 7-12	Promote the development of sustainable forestry developments throughout the County.

NR 7-13	Support the continued expansion and diversification of the forestry sector, in a way that maximises its contribution to the social and economic well being of the county on a sustainable basis, and which is compatible with the protection and enhancement of the environment and heritage of County Kerry.
NR 7-14	Ensure that the diversity and character of the countryside is maintained.
NR 7-15	Encourage the use of forests for timber, energy, recreation and tourism and development of associated businesses and enterprise at local level.
NR 7-16	Ensure that the county's valuable remaining native woodlands are protected and enhanced through the use of appropriate planning and development measures.

Location

7.3.4 The Forest Service is preparing an *Indicative Forestry Strategy* which will identify areas in the county suitable for forestry, having regard to the sensitive areas of high amenity, listed views, archaeological sites and Natural Heritage Areas. The strategy will also have regard to the impact on water quality, bogs, wildlife, rural dwellings and the need for sustainable development generally. The Council will co-operate with the Forest Service in the preparation of the strategy and in identifying environmentally sustainable locations.

The Council in its consultative role shall support the implementation and further development of best forest practice, as defined by the Forest Services publication 'Forest Service Guidelines and the Code of Best Forest Practice' for all forest developments and operations. The following points should be considered in relation to proposed forestry developments:

- Forest developments should follow current best practice and the Forest Service's Forestry and the Landscape Guidelines (July 2000). Forest landscape objectives should focus on compatibility with, and enhancement of, existing local landscape character. Roadside planting should aim to enhance and complement existing visual amenities, without impeding views and prospects, particularly in sensitive high amenity areas.
- Afforestation projects should be designed and implemented in a manner likely to enhance existing local amenities.
- Any adverse impacts of afforestation on watercourses and sources of water supply should be prevented.
- Forest owners should prepare and maintain a forest fire defence strategy, including provision and maintenance of adequate prescribed firebreaks, water supply reservoirs and forest access. Fire plans should be prepared for each forest and reviewed annually.

Objective No.	Indicative Forestry Strategy
	It is an objective of the Council to:
NR 7-17	<p>Location</p> <p>It is an objective of the Council to co-operate with the Forestry Service, Department of Agriculture, Fisheries and Food in the preparation of the Indicative Forestry Strategy for the County.</p>

Assessment of Applications

7.3.5 Under the Planning and Development Regulations 2001, initial afforestation of up to 50 hectares is exempt. Therefore the majority of afforestation developments are unregulated by the Council. They are, however, subject to approval by the Forestry Service and in grant aided projects, of 25 hectares or more, the Council is consulted. In the case of forestry developments requiring planning permission or on which the Council is consulted, the Council will have regard to the following:

- *A Strategic Plan for the Development of the Forestry Sector in Ireland*, published by the Department of the Marine and Natural Resources
- *The National Sustainable Forestry Plan*, published by Department of Agriculture, Food and Forestry.
- *The Development Guidelines of the Forestry Services* published by the Department of the Marine and Natural Resources.
- In evaluating the visual impact of proposals the planning authority will have particular regard to the Forestry Services Landscape Guidelines. These guidelines aim to ensure a positive relationship between the forest and the character of a given landscape, to mitigate visual conflict, and retain existing character and diversity.
- The recommendations of the South West Regional Fisheries Board, the Shannon Regional Fisheries Board, Southern Regional Fisheries Board and the Environment Section of the Council.
- The provisions of the County Development Plan

Objective No.	Development Guidelines
	It is an objective of the Council to:
NR 7-18	Development Guidelines It is an objective of the Council to have regard to the publications listed above, the recommendations of relevant bodies and the future Forest Strategy, in the assessment of afforestation proposals.

Adjacent Landowners

7.3.6 Afforestation can impact on the residential amenity of adjacent landowners and adversely affect the maintenance of public roads.

Objective No.	
	It is an objective of the Council to:
NR 7-19	Residential Amenity / Public Roads It is an objective of the Council to seek to ensure afforestation is not located in a manner that will adversely impact on the amenities of adjacent landowners or adversely affect the maintenance of the public road.

Recreational Access

7.3.7 The council recognises the tourist and recreational benefits of forested areas and will seek to encourage the sustainable management of forest lands for recreational and tourism purposes.

Objective No.	Recreational Access
	It is an objective of the Council to:
NR 7-20	Access It is an objective of the Council to encourage the development of forest parks, viewing areas, parking areas and other tourist related amenities within afforested areas. It is also an objective to co-operate with the relevant government and statutory bodies in their establishment.

7.4 Renewable Energy

7.4.1 The promotion of renewable energy throughout the county is important both for economic and environmental reasons. Ireland in compliance with the Kyoto protocol and the provisions of a 'Burden Sharing Agreement' between E.U. member states aims to limit Greenhouse Gas emissions to 13% above 1990 levels in the period 2008 –2012.

S.I. 666 (2006) requires A Building Energy Rating Certificate for all new homes, while all new buildings greater than 1,000m² must ensure that consideration is given to the economic, environmental and technical feasibility of installing alternative renewable energy systems and that the uses of such systems has been taken into account, as far as practicable in the design of the building.

7.4.2 Environmentally, the harnessing of renewables for energy production releases no harmful greenhouse gases, reduces local air pollution and produces little or no waste. Economically, it will give rise to inward investment in terms of construction, operation and maintenance. It is also an indigenous natural resource that replaces imported fossil fuels, thereby reducing national fuel bills. It provides greater security of energy supply and reduces the potential for serious economic impacts due to external factors which might affect energy prices. In addition renewable energy can contribute to employment generation either directly in the renewables industry or indirectly in the supply industry. The use of renewable energy also decouples economic growth from environmental pollution.

7.4.3 Renewable energy comes from natural, inexhaustible sources such as the sun (solar), wind, falling water (hydro), oceans (wave), plants (biomass and bio-fuels) and the earth (geothermal heat pumps). Renewable energy can also be derived from a range of waste products including sewage sludge, municipal solid waste and agricultural waste.

7.4.4 Ireland, and specifically Kerry, is well positioned to develop and benefit from renewable energy. Ireland has one of the best wind energy resources, and growing climates for biomass, in Europe and an excellent climate for some solar energy technologies. The Council recognises the significant environmental and economic benefits associated with energy production from renewable resources.

Objective No.	General Renewable Energy
	It is an objective of the Council to:
NR 7-21	<p>Facilitate renewable energy</p> <p>Maximise the potential and promote the development of appropriate renewable energy projects throughout the County while having due regard to the need to protect the environment and ensure the proper planning and sustainable development of the county.</p>

NR 7-22	Use of micro-renewable technologies: Facilitate and promote the use of micro-renewable technologies, where appropriate, through the planning application process.
NR 7-23	Infrastructure for facilitating wave energy Promote the utilisation and of wave energy by facilitating appropriate infrastructure for the harnessing and utilisation of same.
NR 7-24	Built Environment Support the integration of renewable energy and sustainable design into the built environment.

Wind Energy

7.4.5 Given the significant environmental and economic benefits associated with wind generated electricity, it is the intention of the Council to facilitate the development of the natural wind energy resource available, while having due regard to its statutory obligation to ensure the proper planning and sustainable development of the county.

7.4.6 The scale, bulk and visual impact of wind developments require a strategic policy specifically for the location of wind development. This plan identifies areas for wind development which subject to site specific planning considerations are either preferred, open-to-consideration or unsuitable for wind development. The wind deployment zones for the County are shown on Map 7.1. The wind development strategy and its policies, however, do not set a precedent or compromise existing development control policies with regard to other forms of development.

Strategic Areas

7.4.7 Strategic areas are defined as areas deemed eminently suitable for windfarm development and reserved for such purposes. This category should be applied to useable areas i.e. areas that have economically viable wind speeds and the ability to absorb wind development. It is not intended to designate any lands as strategic areas in the plan. The following designations have been included.

Preferred Areas

7.4.8 These are areas that are suitable for wind farm development and the granting of planning permission will be favorably considered unless specific local planning circumstances within the context of the development plan deem otherwise. This category is applied to areas with the lowest sensitivity to wind development.

Areas Open For Consideration

7.4.9 Applications in these areas shall be treated on their merits with the onus on the developer to demonstrate why the development should be granted permission. This category has been applied to areas with some capacity to absorb wind development but which are sensitive enough to require a site-by-site appraisal to ascertain the suitability of the area for development.

Areas Unsuitable for Development

7.4.10 These are areas that have been identified as particularly unsuitable for wind farm development. They comprise areas which due to their scenic, ecological, historic or tourism values are unable to accommodate wind development.

Landscape and Environmental Constraints

7.4.11 Given the nature of wind farms, there are areas that can be identified as unsuitable for wind development, on the basis that they conflict with existing land uses and planning policies, and are therefore excluded from consideration. These areas and the exclusion zones are outlined in Table 7.1.

Table 7.1	
Exclusion Zones	
EXCLUSION AREA	EXCLUSION DISTANCE (M)
Towns, Villages	1000
National Primary Roads	N.R.A. Recommendation
National Secondary Roads	N.R.A. Recommendation
High voltage cables	100
Airport protection zone	6000
Lakes > 6 Ha	2000
Prime special amenity areas	Areas Unsuitable for Development

7.4.12 The development management policies and standards relating to the design, layout and ancillary development of windfarms are outlined in chapter 13. The strategy also gives guidance on restoration works, levies and bonds to secure compliance with planning conditions. The Council will assess all applications on the basis of compliance with the strategy.

7.4.13 Proposals for the installation of wind measuring masts will be facilitated through the granting of temporary planning permissions. If the council has strong reservations on the suitability of the site for wind turbines on the basis of the wind development strategy the applicant will be advised accordingly.

Objective No.	Wind Development
	It is an objective of the Council to:
NR 7-25	Location Ensure that windfarms are developed in accordance with the wind deployment zones shown on Map 7.1. the provisions of Table 7.1 and the development management standards outlined in Chapter 13. Within exclusion zones around urban centres, provision may be made for individual turbines servicing technical or institutional facilities where it can be demonstrated that residential amenity will not be affected.
NR7-26	Wind energy – self supply: Facilitate single or twin wind turbines in appropriate industrial/commercial locations for self supply.
NR 7-27	Powerlines Ensure that in sensitive landscapes powerlines connecting windfarms to the national grid will be required to be laid underground.

Hydro Energy

7.4.14 An application for the installation of a hydro electric plant shall require an Environmental Impact Assessment where it meets the thresholds specified in Schedule 5 Part 2(h) of the Planning and Development Regulations 2001. An Environmental Impact Statement shall also accompany an application where the Council is of the opinion that the environmental impact is such that an EIA is warranted.

7.4.15 In the case of hydro installations for the production of electricity, planning applications should indicate proposals for the powerlines that will connect the installation to the grid. In sensitive landscapes, proposed powerlines connecting the hydro unit to the national grid may be required to be laid underground. As this may have serious financial implications for the development, developers should consult the Planning Authority in advance of submitting an application.

7.4.16 Proposals for hydro energy installations shall provide for the free passage of fish. The Council shall have regard to the recommendations of the South West Regional Fisheries Board, the Shannon Regional Fisheries Board and/or the Southern Regional Fisheries Board, as appropriate, in assessing proposals.

7.4.17 In addition hydro schemes shall be designed to allow the landscaping of dam walls and ancillary infrastructure, and the minimisation of noise emissions.

Objective No.	Grid Connection and Design
	It is an objective of the Council to:
NR 7-28	Powerlines Ensure that in sensitive landscapes powerlines connecting hydroelectric schemes to the national grid will be required to be laid underground.
NR 7-29	Design Ensure hydro schemes are designed to allow the landscaping of dam walls and ancillary infrastructure, and the minimisation of noise emissions.
NR7-30	Pumped Hydro-Storage Systems: Promote and facilitate pumped hydro-storage systems for the generation of electricity during the peak requirements periods.

Solar Energy

7.4.18 Solar energy has the capacity to make a significant contribution to energy production. The Council will support the development of solar energy in the built environment.

Objective No.	Solar Development
	It is an objective of the council to:
NR 7-31	Design Principles Encourage applicants for planning permission to take into consideration passive solar design principles when designing an individual building or estate.
NR 7-32	Siting Consider key siting issues like orientation, overshadowing and wind sheltering for the maximisation of passive solar performance when assessing planning applications for residential and commercial / institutional buildings.

NR 7-33	Solar Collectors Support the installation of solar collectors for the production of heat or electricity in residential and commercial buildings.
NR 7-34	Powerlines Ensure that in sensitive landscapes powerlines connecting solar energy schemes to the national grid will be required to be laid underground.

Biomass

7.4.19 Biomass encompasses a variety of fuels and technologies used in the production of renewable energy. Biomass refers to land and water-based vegetation, organic wastes and photosynthetic organisms. These are non-fossil, renewable carbon resources from which energy can be produced and used as fossil fuel substitutes. Examples of biomass include: wood, grasses (eg. miscanthus), crops, agricultural and municipal wastes. Biomass can be burned to produce heat that is used to create steam to turn turbines and produce electricity. Therefore, energy from biomass can produce electricity and / or heat. Liquid bio-fuels can also be derived from biomass crops such as oilseed rape.

7.4.20 The potential for the development of biomass in Ireland is considerable. Ireland has the best growth climate in Europe and up to 3 times that of Finland where the energy use from biomass is 18%. Although the biomass industry is modest in scale, Ireland's growth rate, technological advances, and the deregulation of the electricity industry together with stricter controls on waste management will result in an increase in applications for biomass installations.

In Kerry, it is estimated that forestry has the potential to supply up to 10% of the energy requirements of the County if the available resource is maximized.

7.4.21 An Environmental Impact Assessment must be carried out where required by the prescribed regulations. The Council may require the submission of an EIS with a planning application in cases where the size of the development does not exceed the statutory threshold requirements but the Council considers that the potential environmental impacts warrant an EIA.

7.4.22 In the case of Biomass installations for the production of electricity, planning applications should indicate proposals for the powerlines that will connect the installation to the grid. In sensitive landscapes, proposals for powerlines connecting the biomass unit to the national grid may be required to be laid underground. As this may have serious implications for the development, developers should consult the Planning Authority in advance of submitting an application.

Objective No.	Grid Connection / Location
	It is an objective of the Council to:
NR 7-35	Development Facilitate the development of projects that convert biomass to energy.
NR 7-36	Location Locate biomass installations in areas that do not affect residential or visual amenity and which are served by public roads with sufficient capacity to absorb increased traffic flows.
NR 7-37	Powerlines Ensure that in sensitive landscapes powerlines connecting biomass schemes to the national grid will be required to be laid underground.