

NON TECHNICAL SUMMARY OF THE ENVIRONMENTAL REPORT

ON THE KILKENNY COUNTY DEVELOPMENT PLAN 2008-2014 STRATEGIC ENVIRONMENTAL ASSESSMENT



For: Kilkenny County Council

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1 Introduction and Terms of Reference

This is the Non-Technical Summary of the Environmental Report of the Kilkenny County Development Plan (CDP) Strategic Environmental Assessment (SEA). The purpose of the report is to provide a clear understanding of the likely environmental consequences of decisions regarding the future accommodation of growth in County Kilkenny.

The SEA is being carried out in order to comply with the provisions of the SEA Regulations and in order to improve planning and environmental management in County Kilkenny. This report should be read in conjunction with CDP.

SEA is a systematic process of predicting and evaluating the likely environmental effects of implementing a proposed plan, or other strategic action, in order to ensure that these effects are appropriately addressed at the earliest appropriate stage of decision-making on a par with economic and social considerations.

The SEA process is led by the environmental baseline, the current state of the environment, to facilitate the identification, evaluation and subsequent monitoring of the effects of the plan and the alternatives.

The SEA Directive requires that reasonable alternatives, taking into account the objectives and the geographical scope of the plan or programme, are identified, described and evaluated for their likely significant effects on the environment.

2 The Plan for the County

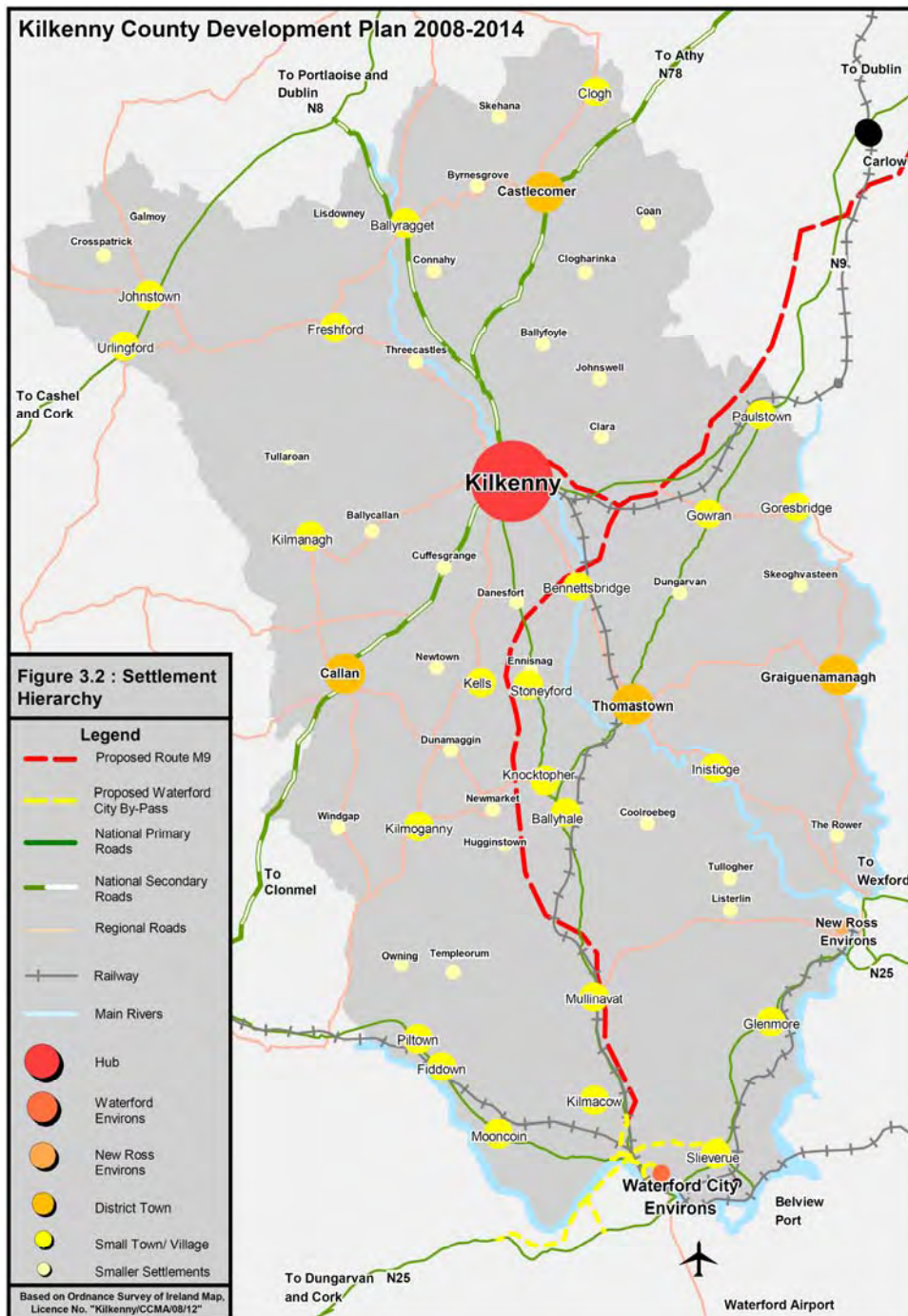


Figure 2.1 Settlement Concept Map taken from CDP

The strategic goals identified within the CDP are as follows:

- To provide the highest quality living environments possible, in both urban and rural areas to all members of our community;
- To sustain rural communities, by supporting agriculture, tourism and other rural based economic activity & promoting balanced development of rural settlements;
- In conjunction with the Kilkenny City & Environs Development Plan to provide for a sustainable spatial development strategy to guide the location of development within the County; and,
- To protect, conserve and enhance the built and natural heritage of County Kilkenny for future generations.

The CDP vision is to advance the position of the County as a centre of excellence for creativity in all sectors whilst ensuring the continued protection and enhancement of the county's magnificent built and natural heritage, its thriving cultural, sporting and artistic base and its strong and dynamic services economy through the promotion of sustainable economic, social and cultural development.

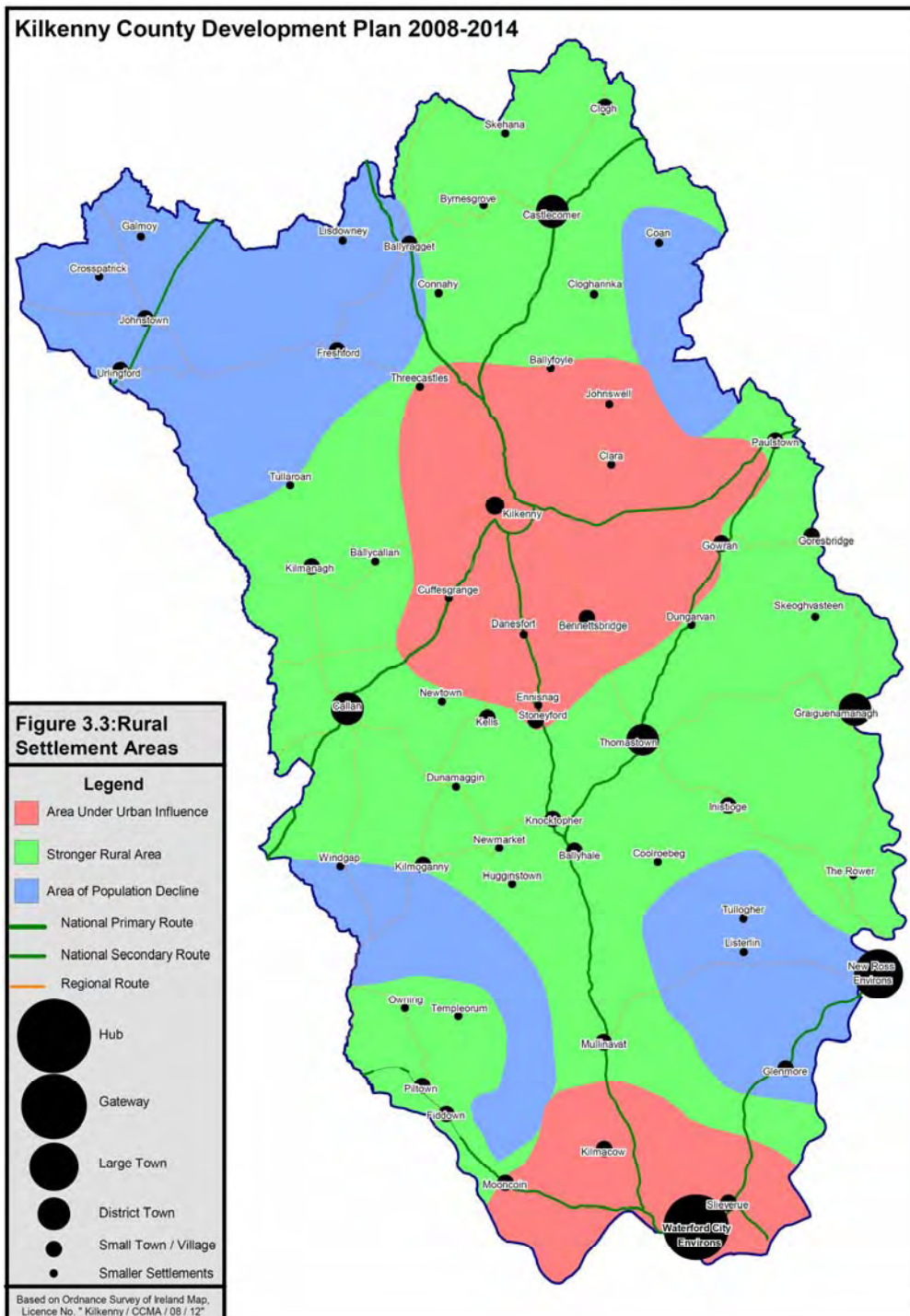


Figure 2.2 Rural Settlement Areas taken from CDP

The maps in Section 3 below summarise how the principal environmental assets of the County have the potential to be affected by developments in the 'areas under urban influence' (coloured pink on the above map). With the exception of more concentrated developments – such as windfarms, quarries, tourism projects and some infrastructure – most of the development arising from this plan will occur within these areas.

The CDP has been prepared as an implementation mechanism for the Regional Planning Guidelines as it applies to Kilkenny and the Overall Strategy, Settlement Strategy, Policies and Objectives have been formulated in response to the Guidelines.

The CDP envisages that Certain Rural Areas in the County will come under urban pressure arising from the various settlement centres. These areas (called 'areas under urban influence') display the greatest pressures for development due to: close commuting catchments of larger cities and towns; rapidly rising population, and; ready access to good road network with ready access to the larger urban areas.

3 The Environment of the County & Potential Environmental Effects

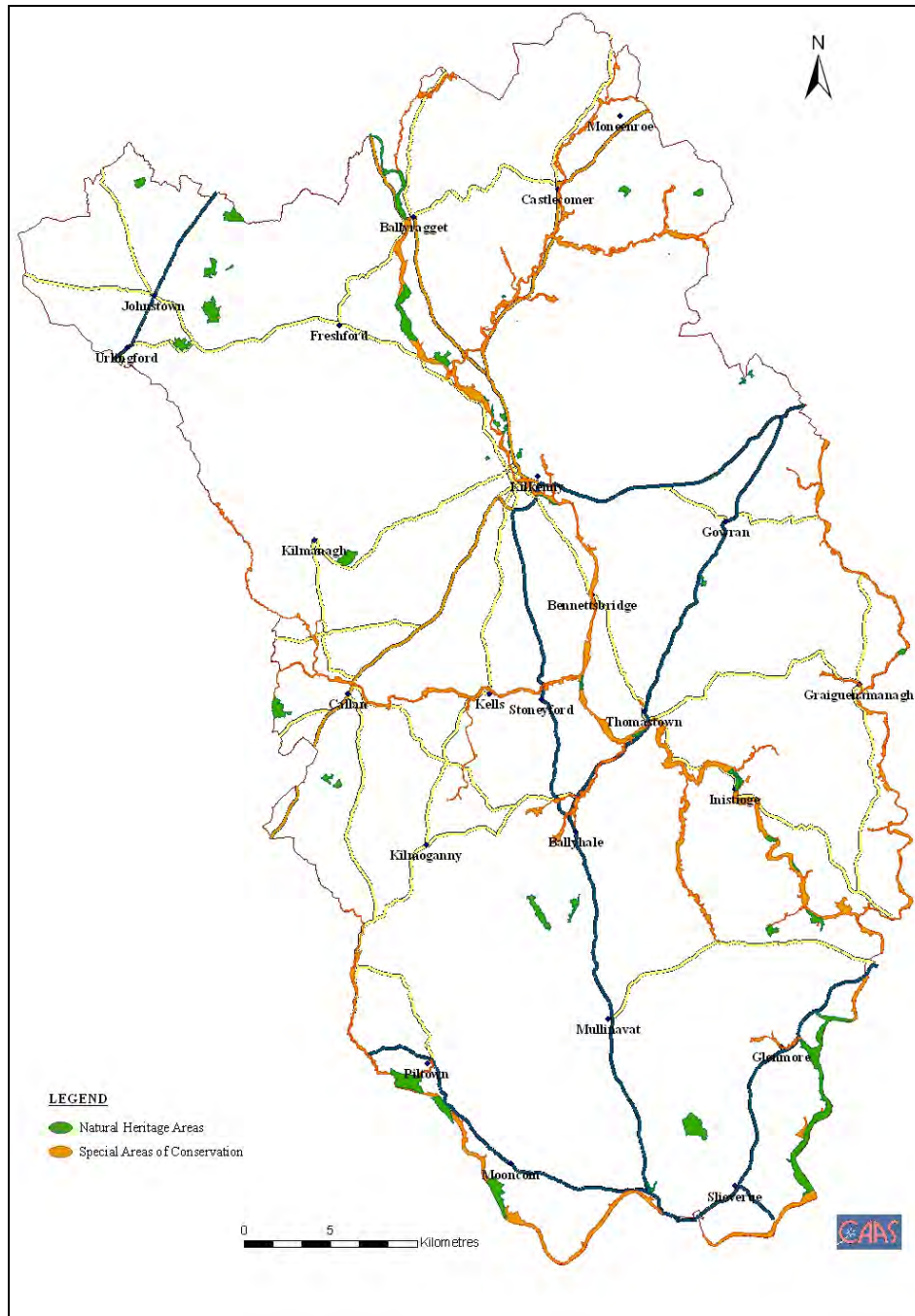


Figure 3.1 Ecological Designations

Biodiversity, Flora and Fauna

This Ecological Designation map shows the spread of designated habitats throughout County Kilkenny.

Ecological designations cover areas including the riverbanks of the Nore River, crossing the County in a north-south direction, as well as the western banks of the River Barrow, the eastern banks of the River Suir together with a number of woodlands, bogs and fens.

Most habitats in the County have been impacted upon to varying degrees by human beings over time. The clearing of vegetation centuries ago from most of the County resulted in the replacement of natural habitats with semi-natural, low biodiversity habitats. This replacement was accentuated throughout the 20th century with the intensification of agriculture on the County's fertile and well drained soils.

Biodiversity, Flora and Fauna - Potential Effects

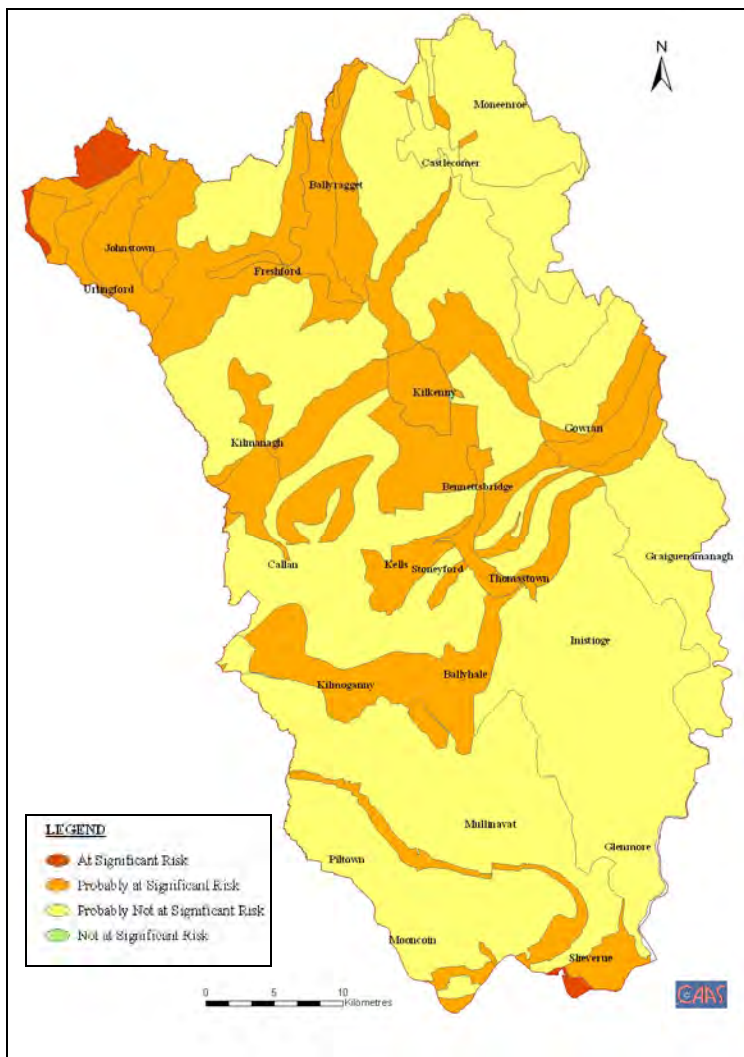
Under the CDP, with the exception of areas beside salmonid waters - there is a relatively low potential for development and settlement to conflict with nature in most of Kilkenny. However, developments near rivers, many of which are salmonid in County Kilkenny, have to be very carefully prepared and scrutinised in order to anticipate and avoid impacts on these resources.

Water

The principal legislation governing water quality in Ireland is the European Communities (Water Policy) Regulations 2003 (SI No. 722 of 2003) which transposes the Water Framework Directive (2000/60/EC). The Water Framework Directive (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. All public bodies, including Kilkenny County Council, are also required to: coordinate their policies and operations so as to maintain the good status of water bodies which are currently unpolluted, and; improve polluted water bodies to good status by 2015.

County Kilkenny is located in the South Eastern River Basin District (SERBD). For the purposes of assessment, reporting and management, water in the SERBD has been divided into groundwater, rivers, lakes, estuarine waters and coastal waters which are in turn divided into specific, clearly defined *water bodies*. Each water body has been assessed, on the basis of human activity, whether it is *at risk* or *not at risk* of failing to achieve the WFD's objectives by 2015. In order to facilitate this assessment, a four-class risk classification scheme was applied using the following terminology:

- Not at Significant Risk
- Probably Not at Significant Risk
- Probably at Significant Risk (these are likely to need improvement in order to achieve the required status)
- At Significant Risk (these will need improvement to achieve the required status)



Ground Water

It is noted that ground water bodies closest to locations in which most development and settlement has taken place in the past and is likely to take place in the future are generally assessed as being *probably at significant risk* (orange).

Figure 3.2 Ground Water Risk Assessment

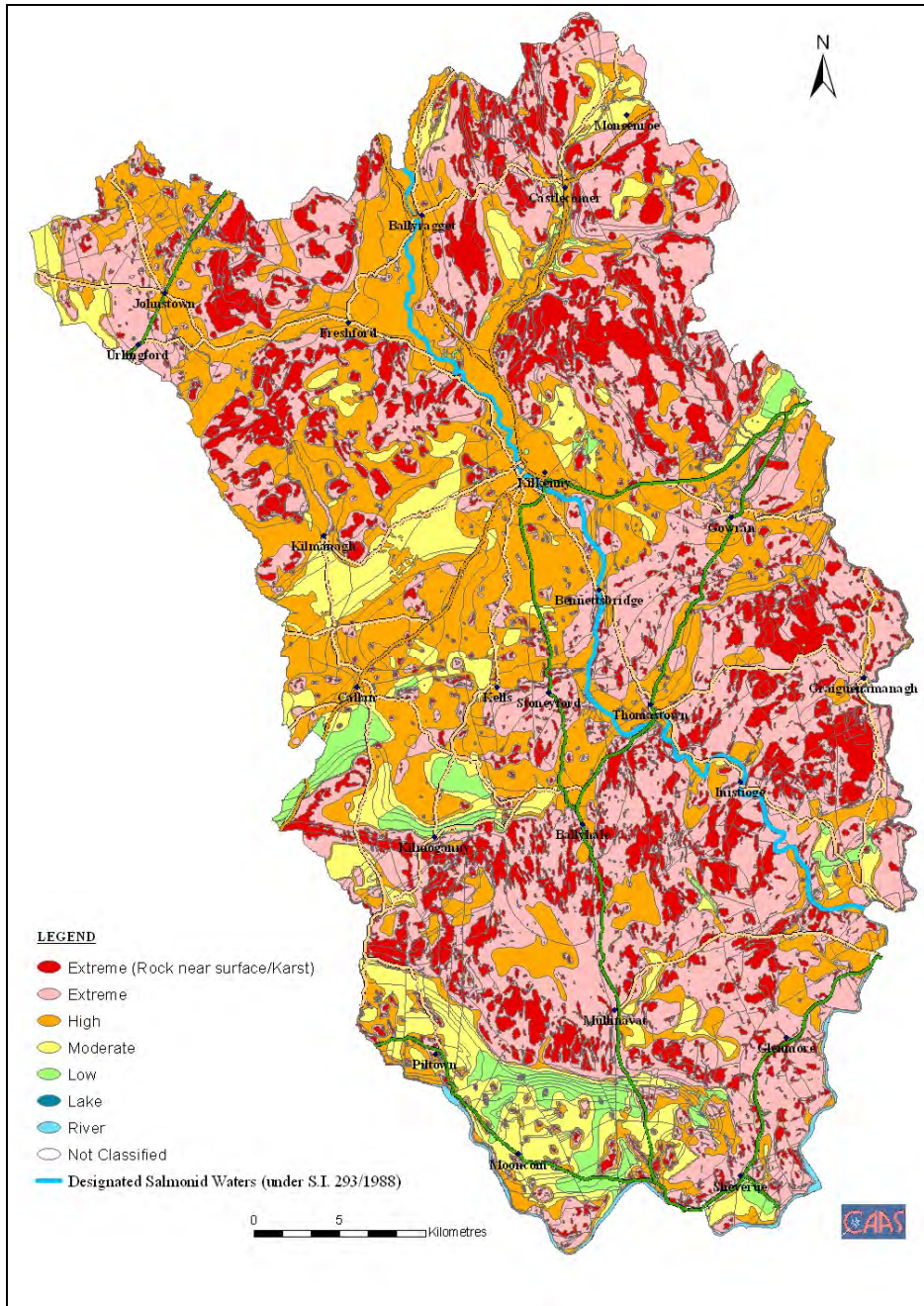


Figure 3.3 Groundwater Vulnerability Ratings

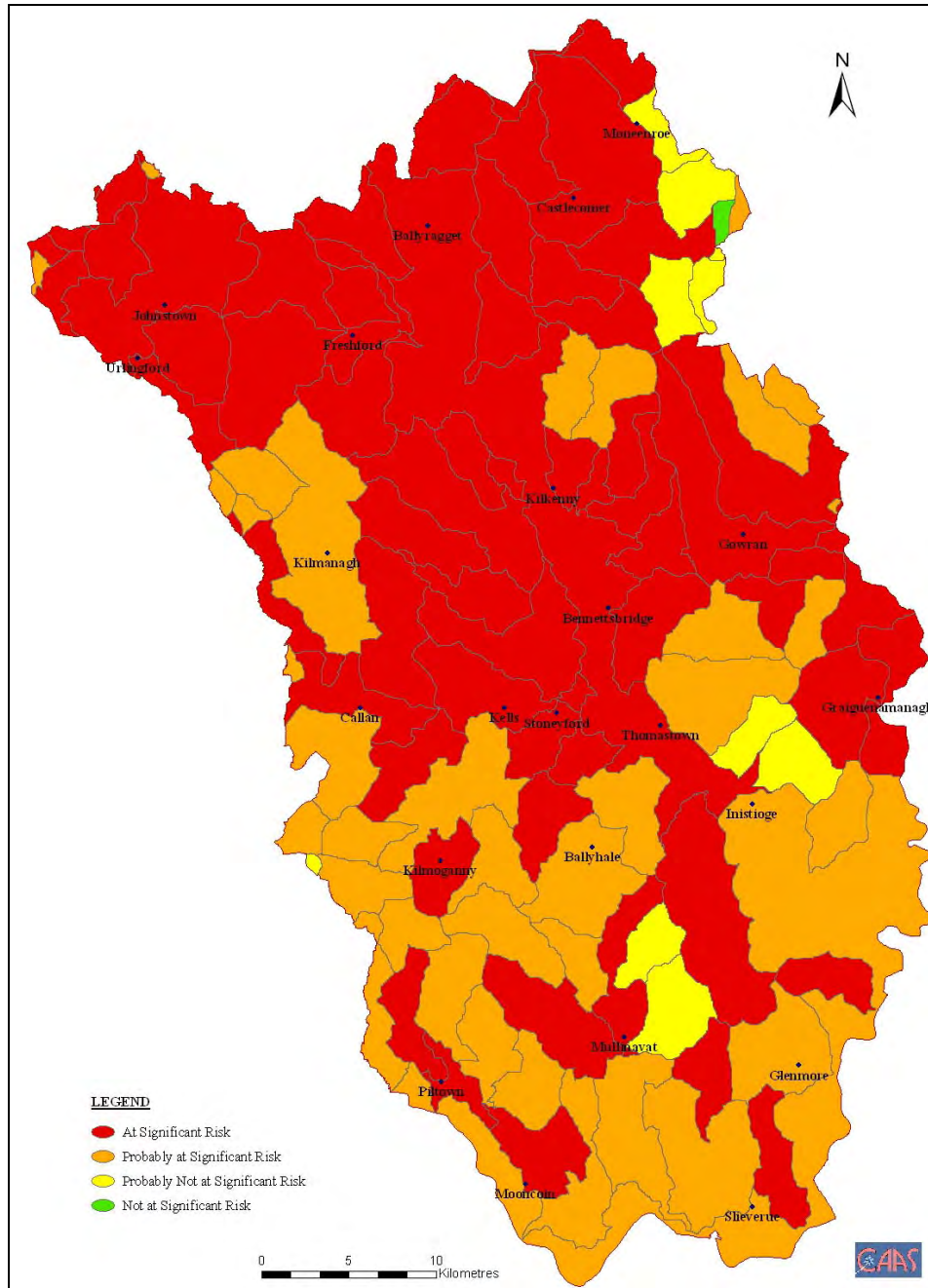
Ground Water

Groundwater is stored in the void spaces in underground layers of rock, or aquifers.

The Geological Survey of Ireland rates aquifers according to their vulnerability to pollution. Aquifers of extreme vulnerability (which can be found through much of the southern, northern and eastern parts of the County and are coloured in red and pink) and aquifers of high vulnerability (which predominate in the low lying central areas and are coloured in orange) are the two classifications of aquifers which are most sensitive to an imposed contaminant load - the majority of the County's ground waters are classified as being either of extreme or high vulnerability.

Ground Water - Potential Effects

The soils and geology of County Kilkenny create conditions which mean that groundwater is, at the very least, highly vulnerable to pollution across most of the County, and extremely vulnerable to pollution in many areas. In addition to this vulnerability, much of the lands covered by the 'Areas under Urban Influence' zoning are located over groundwater which is probably at significant risk. This means that rural developments including those in the environs of Slieverue, Kilkenny City, Castlecomber, Gowran, Paulstown, Bennetsbridge, Kells, Stoneyford, Thomastown, Ballyhale and Kilmoganny would have to be very carefully prepared and scrutinised in order to anticipate and avoid impacts.



Surface Water

In terms of achieving the WFD's objectives by 2015 only 11 out of 128 river catchments in the County are classed as being either *not at risk* or *probably not at significant risk* of failing to achieve the WFD's objectives by 2015 while 117 of the 128 are either *at significant risk* or *probably at significant risk*.

It is noted that river catchments in which most development and settlement has taken place in the past and is likely to take place in the future are generally assessed as being *at significant risk* or *probably at significant risk* of failing to achieve the WFD's objectives by 2015.

Figure 3.4 Surface Water Risk Assessment

Surface Water - Potential Effects

Almost all of the main settlement centres (indicated by the black dots) are located within the catchments of rivers and streams that are shown in red or orange (i.e. classed as being at significant risk or probably at significant risk). Virtually all of the associated pressure in adjacent rural areas also occurs in such areas. This means that developments within these areas that are not connected with adequately sized and effectively operated waste water treatment plants would almost certainly cause significant deterioration in the quality of surface waters. This is a significant risk that must be mitigated against by the timely development of appropriate waste water treatment facilities.

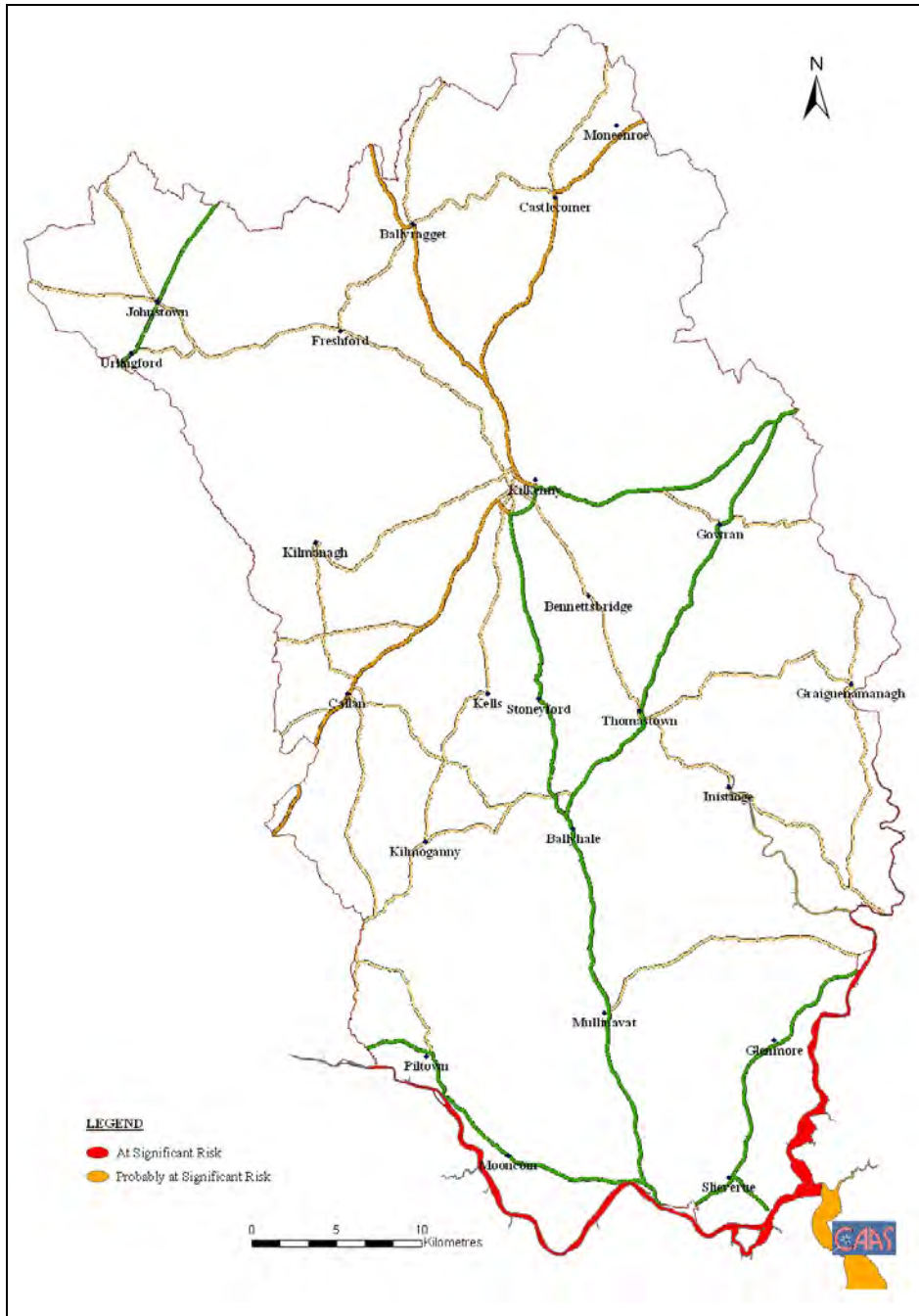


Figure 3.5 Transitional Waters Risk Assessment

Transitional Water

Although County Kilkenny does not have a coastline, the Rivers Barrow and Suir which drain County Kilkenny flow into Waterford Harbour to the south of the County.

The estuarine waters of the Upper River Suir, Upper River Barrow and the River Nore are identified as being eutrophic (they have elevated nutrient concentrations) by the EPA.

The Suir and Nore estuarine waters are assessed as being *probably at significant risk* of failing to achieve the WFD's objectives by 2015 while the waters of Waterford Harbour into which these waters flow are assessed as being *probably at significant risk* under the SERBD classification system.

Transitional Waters - Potential Effects

Development in the northern environs of the Waterford City Gateway, including that at Belview Port, should be served by the appropriate waste water treatment infrastructure in order to avoid impacts upon the transitional waters of the Rivers Suir and Barrow - which are classified as being at significant risk (red) - and the estuarine and bathing waters of Waterford Harbour - which are classified as being probably at significant risk (orange).

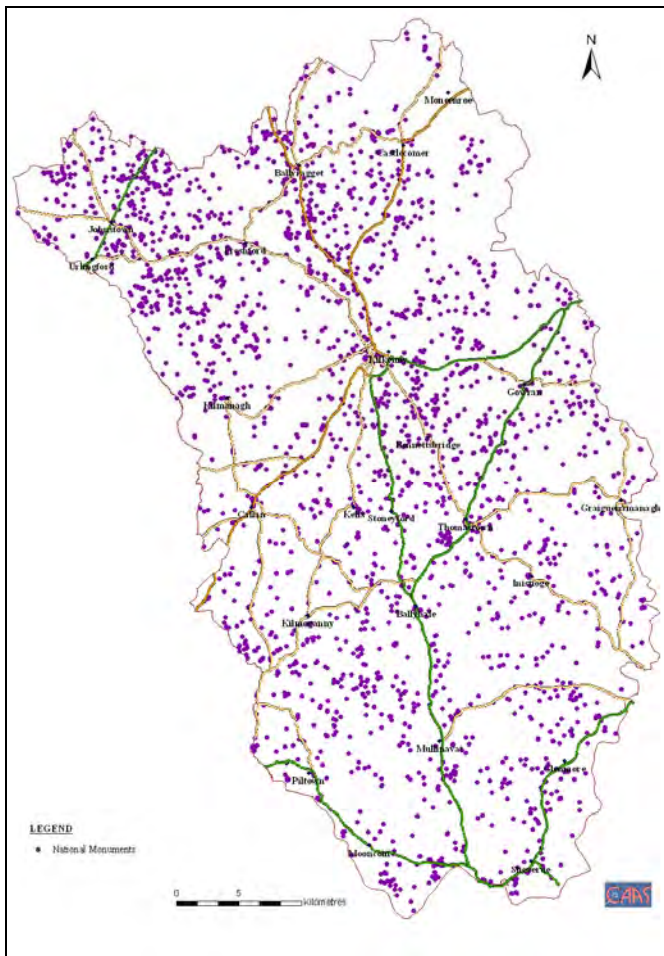


Figure 3.6 National Monuments

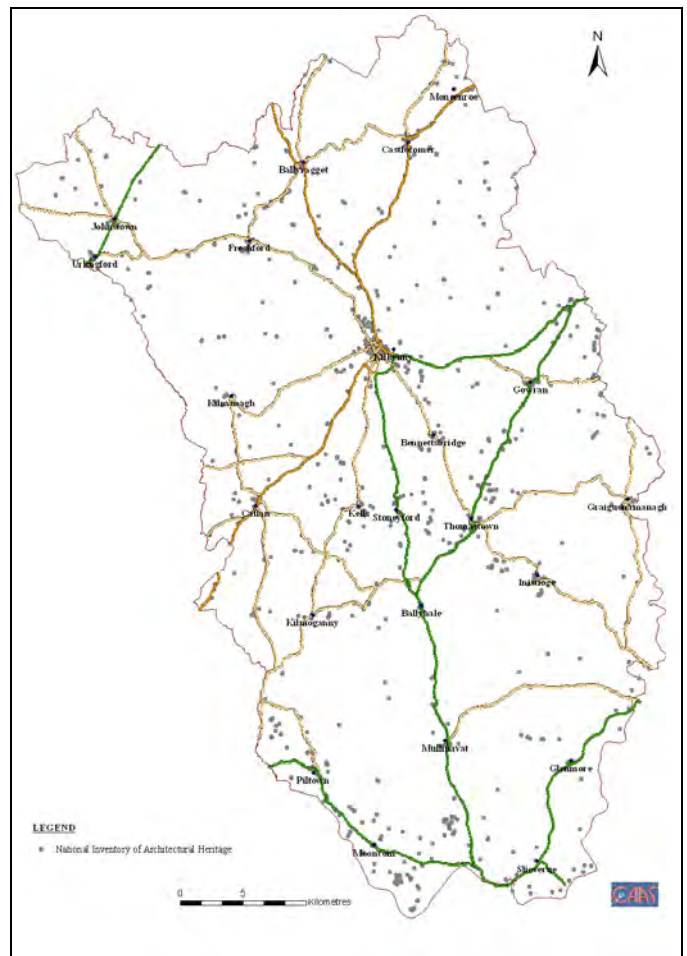
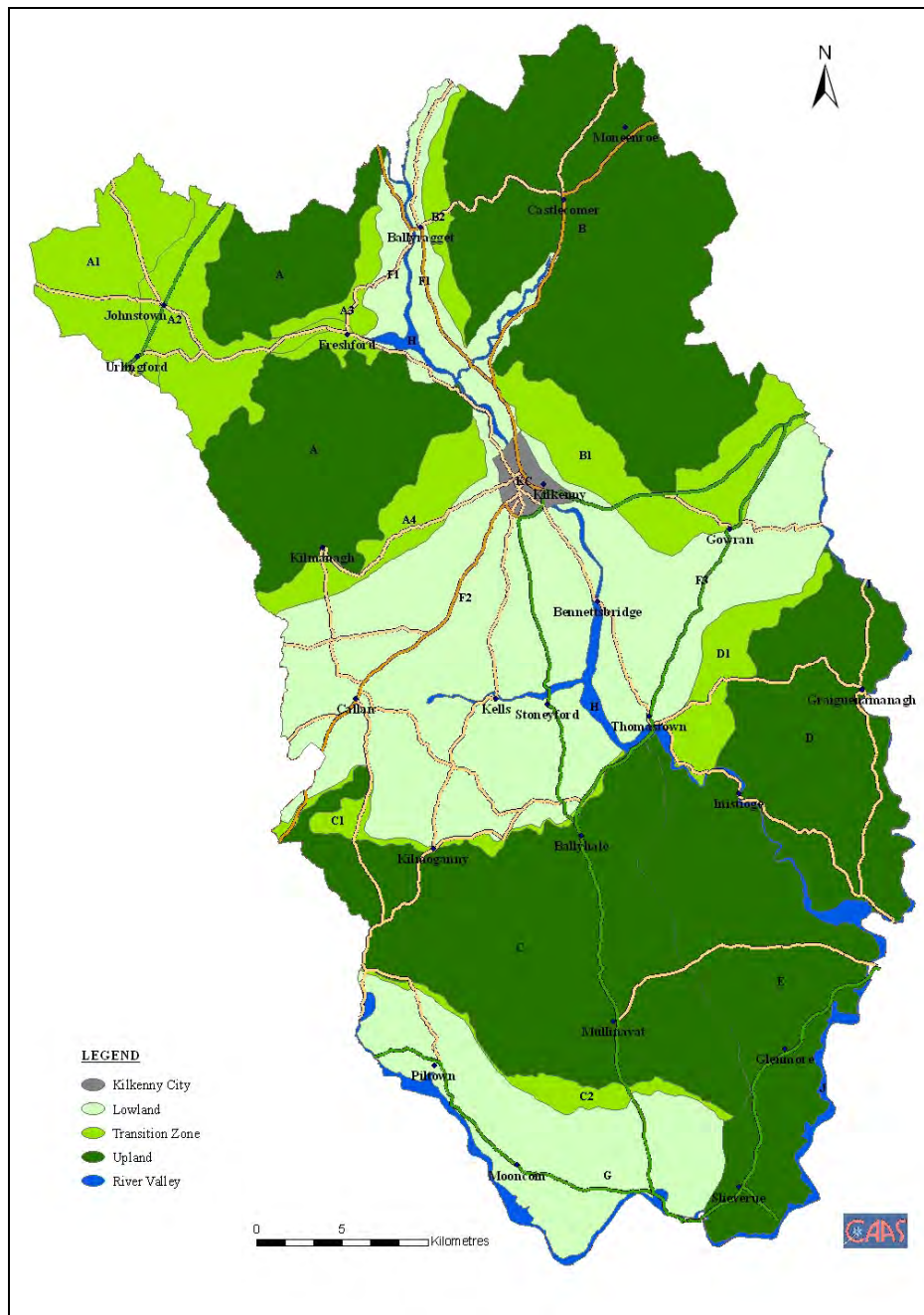


Figure 3.7 Architectural Heritage (NIAH)

Cultural Heritage

Kilkenny has been settled by people for over 6,000 years. The maps above emphasise the richness and widespread nature of Kilkenny's cultural heritage together with the need to put in place systematic ways of anticipating and avoiding potential archaeological impacts during the development stage.



Landscape

Landscapes located in the uplands policy areas and river valley policy areas are the most vulnerable in the County and are most sensitive to change. Landscapes located in the lowland policy area are the most robust and are least sensitive to change.

Figure 3.8 Landscape Policy Areas

Landscape - Potential Impacts

The majority of the County's valued upland landscape (Policy Area 1 - darkest green) would remain largely unchanged under the CDP. The planned settlement corridor which is centred on the Kilkenny City Hub is generally located within lowland landscape (Policy Area 2 - lightest green) - which is a predominantly robust type and would continue to exhibit the dynamism and change of an inhabited working landscape. The transitional landscape (Policy Area 4 - middle green) would continue to exhibit dynamism and change as agriculture declines providing new opportunities for forestry and biodiversity. Scenic views and prospects are found in the uplands as well in the River Valleys.

4 Mitigation Measures

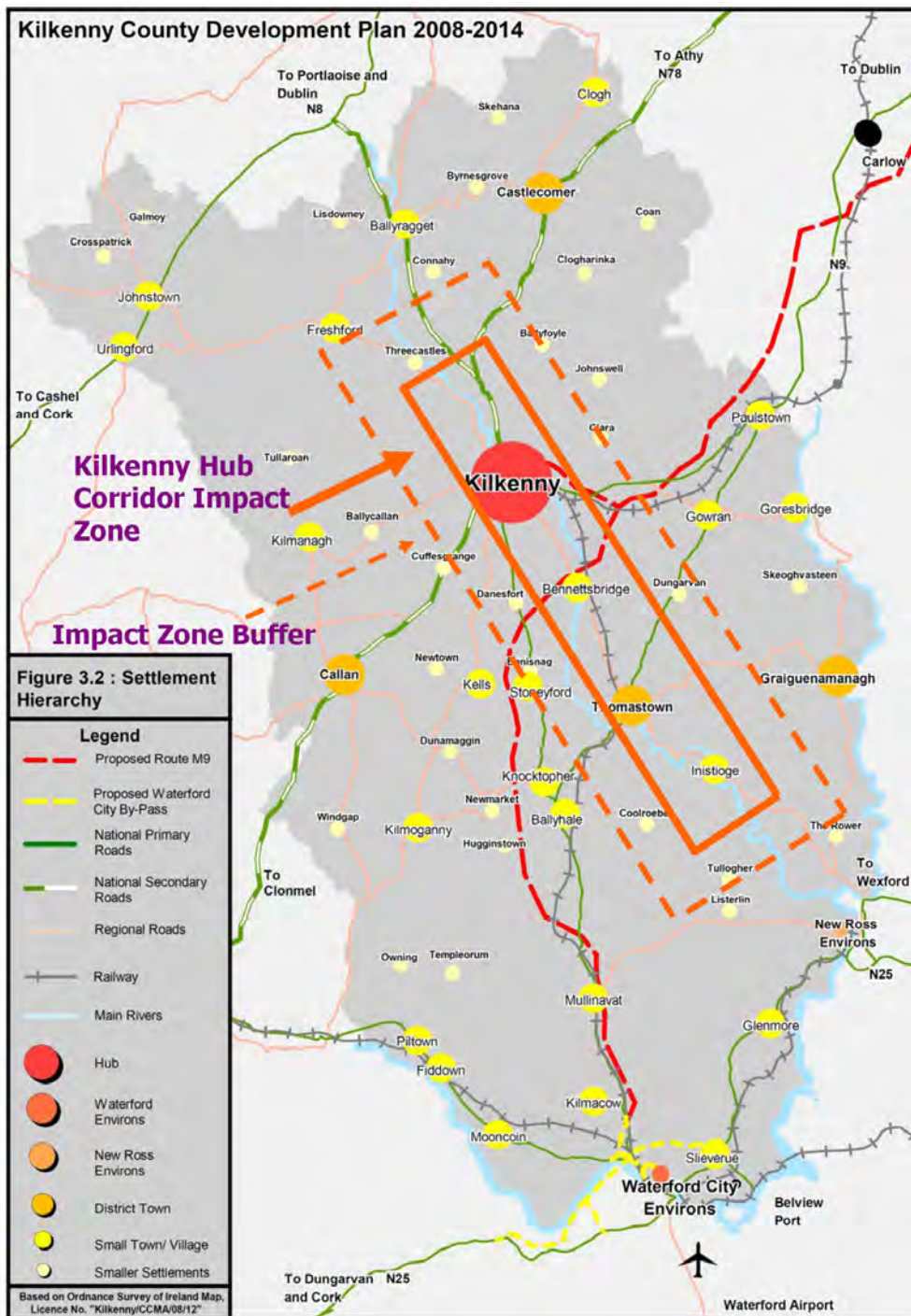


Figure 4.1 Kilkenny Hub Corridor Impact Zone

Spatial Strategy

The Kilkenny Hub Corridor Impact Zone has a significant potential to conflict with elevated densities of environmental sensitivities.

In order to sustainably facilitate necessary development in this area it will be necessary to prepare a Spatial Strategy to assist in the preparation of future development plans or local area plans. This strategy will identify the location, significance and sensitivity of the range of environmental assets and constraints that occur within these particularly sensitive areas and such relevant sensitivities as may exist in the adjoining buffer zone.

The strategy shall demonstrate how the provisions of the CDP can be sustainably accommodated within such sensitive areas.

Thematic Strategies

In addition to these specific areas the county will need to prepare and separately assess a Thematic Strategy for Rural Development and Agriculture and a Thematic Strategy for Forestry.

TS1: Thematic Strategy for Rural Development & Agricultural Restructuring

Kilkenny has a very wide range of land use capability that will result in different parts of the County having very different futures under the onset of the reform of the Common Agricultural Policy. It is likely that areas with marginal agriculture are likely to experience increasing levels of afforestation, alternative enterprises and rural settlement as a result. If these occur in an integrated and coordinated manner then there are likely to be benefits for all - in addition to increased protection for environmental assets such as groundwater, surface water quality, landscape and cultural heritage. A Thematic Spatial Strategy for Agricultural Restructuring will address this need.

TS2: Thematic Strategy for Forestry

A number of social, economic and agricultural forces may combine to see the beginning of a marked increase in afforestation in transitional, lowland and upland landscapes within Kilkenny. If properly harnessed such forestry could positively facilitate many other land-uses - including land-use types which are often difficult to accommodate such as aquifer and surface water protection, tourism, rural housing, mineral extraction, industry, and the provision of infrastructure location. It is proposed that a Thematic Spatial Strategy for Forestry is prepared to this effect.

Mitigation Measures for Specific Environmental Topics

1. Designated Ecological Sites
2. Designated Wetland / Peatland Ecological Sites
3. Salmonid Waters Protection
4. Ecological Networks
5. Water Quality Protection
6. Archaeological Heritage
7. Architectural Heritage
8. Landscape Heritage