

NON-TECHNICAL SUMMARY OF THE ENVIRONMENTAL REPORT

OF THE

WICKLOW ENVIRONS AND RATHNEW LOCAL AREA PLAN 2008-2014

STRATEGIC ENVIRONMENTAL ASSESSMENT



For: Wicklow County Council

Áras an Chontae
Cill Mhantáin



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Section 1 Introduction and Terms of Reference

This is the Non-Technical Summary of the Environmental Report of the Wicklow Environs and Rathnew Local Area Plan 2008-2014 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 Wicklow Environs and Rathnew.

What is an SEA?

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.

Why is it needed?

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 Wicklow Environs and Rathnew. This report should be read in conjunction with the LAP.

How does it work?

All of the main environmental issues of the area in and around Wicklow Environs and Rathnew are assembled and presented to the team who are preparing the new plan. This helps them to devise a plan that protects whatever is sensitive in the environment. It also helps to identify wherever there are environmental problems in the area - so that these won't get any worse - and ideally the plan tries to improve these.

To decide how best to make a plan that protects the environment as much as possible the planners examine alternative versions of the plan. This helps to highlight the type of plans that are least likely to harm the environment.

Section 2 The Plan for Wicklow Environs and Rathnew

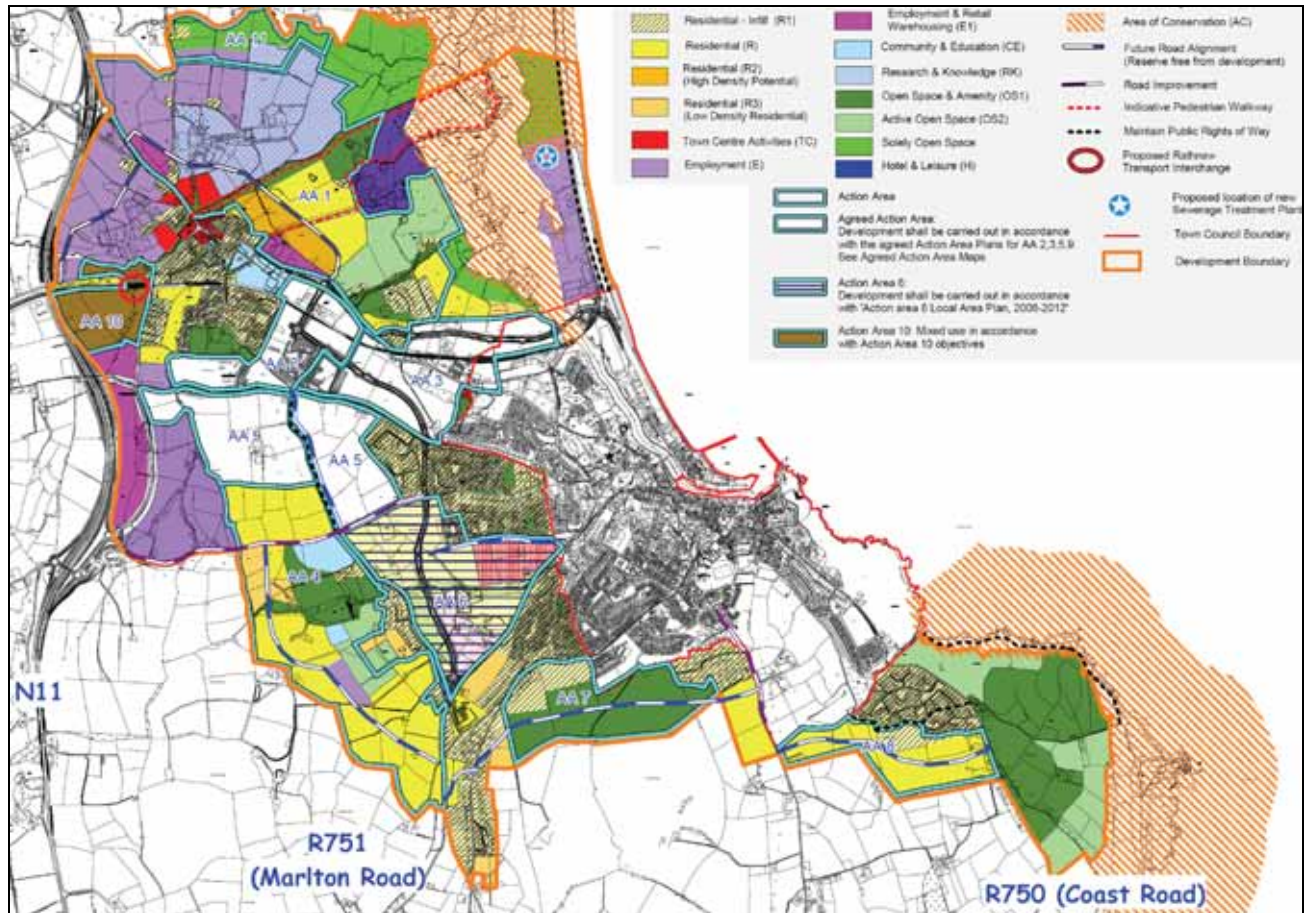


Figure 2.1 The Plan

The Strategic Vision of the Plan is to: ensure that the environs of Wicklow Town and Rathnew develop so as to integrate fully with the existing built area of Wicklow Town, so that the area functions as one entity, while preserving the character of each of the existing areas, and; to ensure that the area shall perform a function that is consistent with its regional role as a 'Primary Development Centre' within the GDA, and develop to enhance Wicklow's status as the County Town, and the key service centre for east County Wicklow.

The Strategic Policy Objectives of the Plan are that it shall be the policy of the County Council to:

- Allow for the development of Wicklow Environs and Rathnew in an orderly manner.
- Provide for the expansion of Wicklow Environs and Rathnew on lands close to the town centre zonings, which may be developed with least infrastructural expenditure, which generate the shortest journeys and which provide good access to the range of social, educational and economic facilities available in the town.
- Provide for the protection from development of areas of high visual amenity, special interest and scientific interest.
- Use its powers, including powers of compulsory acquisition, to facilitate the achievement of the objectives, including zoning objectives, of this Plan.

Section 3 Wicklow Environs and Rathnew Environment & Potential Effects

3.1 Introduction

The current state of the environment in the Wicklow Environs and Rathnew area is summarised in this section as are potential effects on the environment as a result of implementing a LAP for the area. The description of the environment is used in order to identify, describe and evaluate the likely significant environmental effects of implementing the Plan.

The environmental baseline includes the following components – biodiversity, flora and fauna, water, waste water treatment capacity, cultural heritage and landscape.

Wicklow Environs and Rathnew, which is under the administration of Wicklow County Council, is located in the east of County Wicklow adjacent to Wicklow Town Council's administrative area. The Plan area falls to the east of the N11 National Primary Route and borders the Irish Sea to the north and south of Wicklow Town Council's administrative area. The general Wicklow Environs and Rathnew area to which the LAP relates is indicated by the broken green circle shown on Figure 3.1.

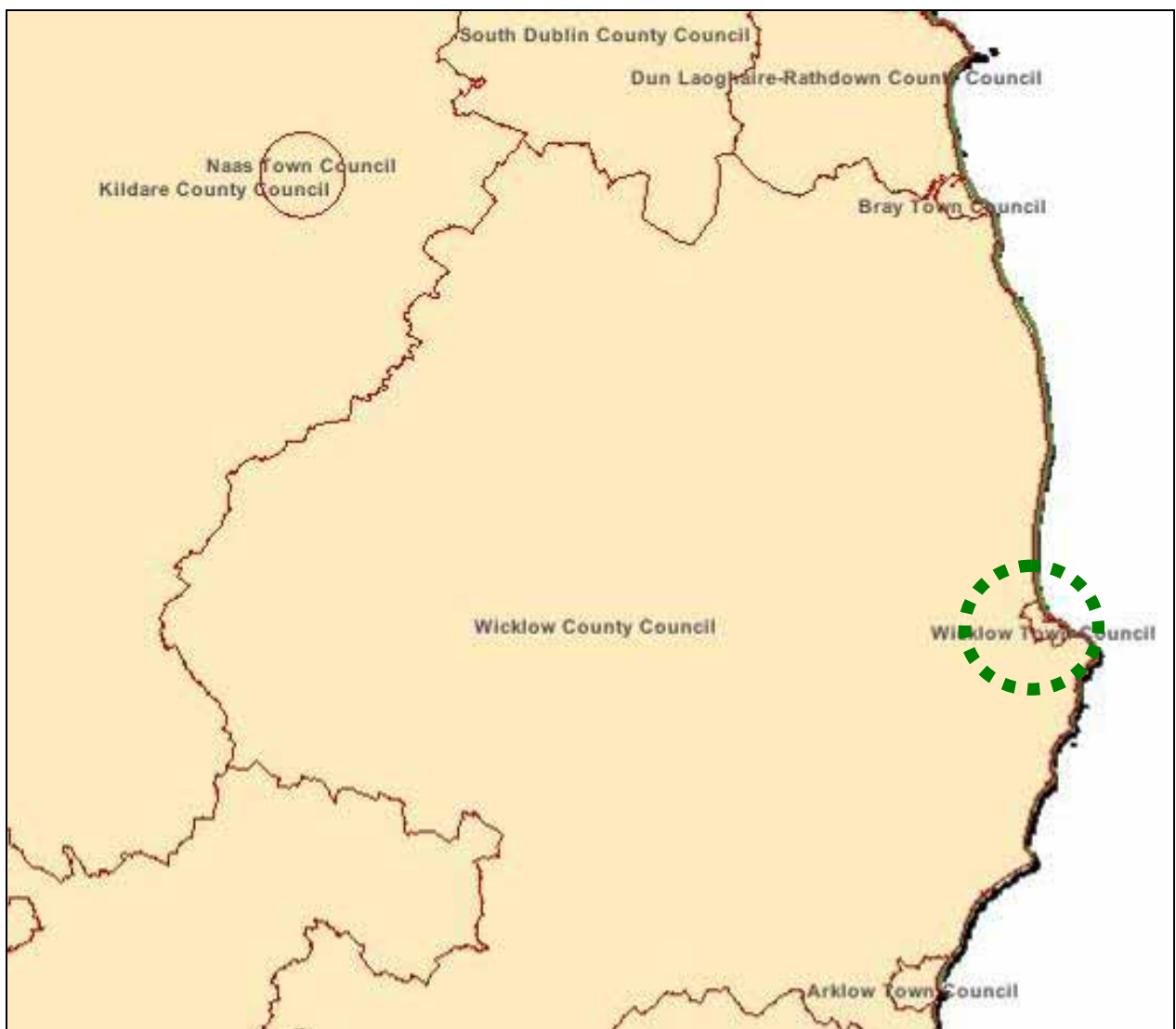


Figure 3.1 General Location Map of Wicklow Town, Environs and Rathnew area

3.2 Biodiversity and Flora and Fauna

3.2.1 Summary of Environment

Most habitats in the Wicklow and Environs area have been impacted upon to varying degrees by human beings over time. The clearing of vegetation centuries ago resulted in the replacement of an amount of the natural habitats with semi-natural, low biodiversity habitats. However, a number of important natural and semi-natural habitats remain within and adjacent to the study area including: those which are found at pastures and non-irrigated agricultural land throughout the area; linear features, such as treelines, hedgerows and rivers - including the Vartry River and the Rathnew Stream - which provide corridors or stepping stones for wildlife species, and; ecologically designated sites.

Ecologically designated sites can be found in and around the Wicklow Environs and Rathnew area to the north east of (including a Special Area of Conservation, Special Protection Area and Natural Heritage Area at the Murrough) and to the east of (including the Wicklow Reef candidate Special Area of Conservation and the Wicklow Head Special Protection Area and Natural Heritage Area).

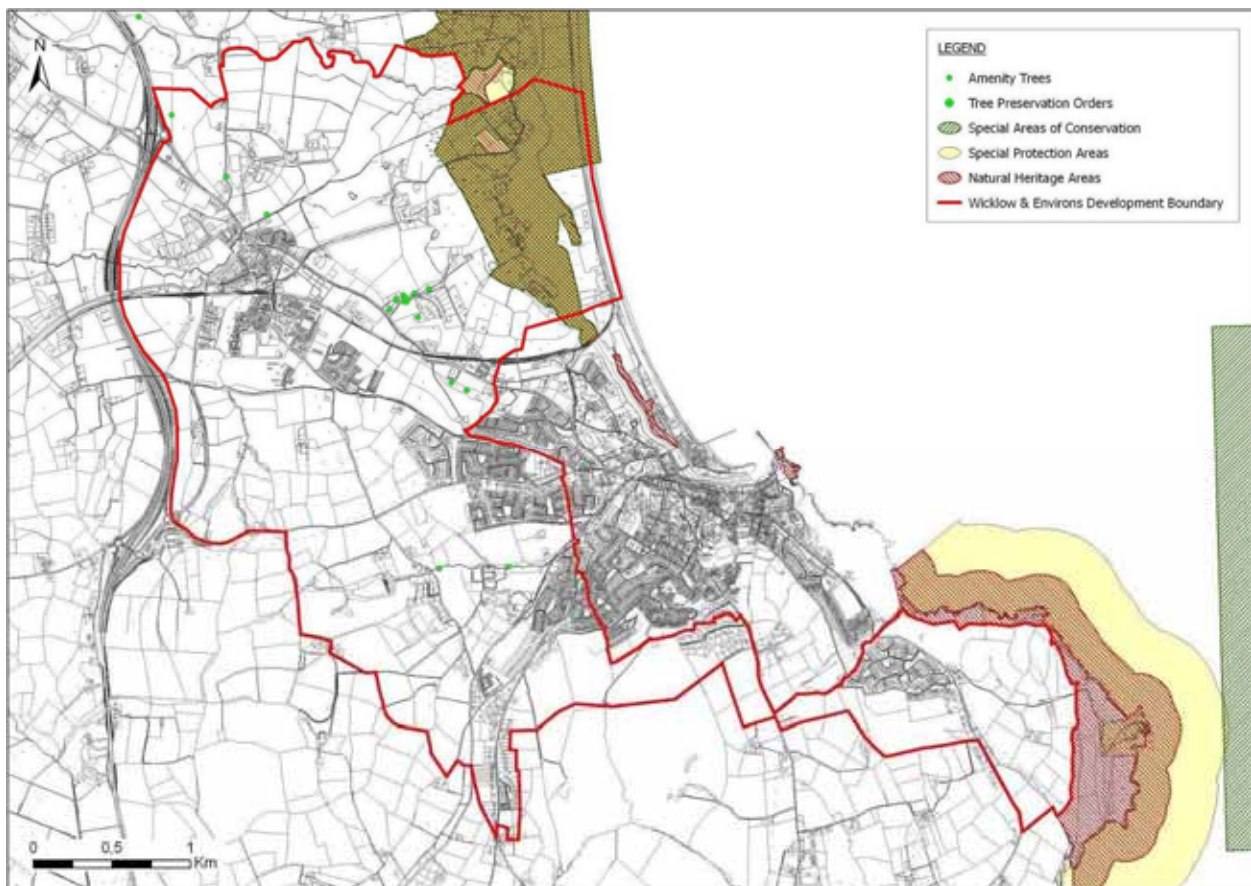


Figure 3.2 Designated Ecological Sites and Trees

3.2.2 Potential Effects

Under the Plan there is a relatively low potential for development and settlement to conflict with nature across most of the Wicklow Environs and Rathnew area once the mitigation measures proposed under the Environmental Report are integrated into the Plan and complied with. Significant adverse impacts on designated ecological sites (The Murrough SPA 004186; The Murrough NHA 000730; The Murrough Wetlands cSAC 002249) will be avoided by compliance with, inter alia, mitigation measure MM9.

3.3 Water

3.3.1 The Water Framework Directive

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 Wicklow County Council, are 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.

For the purpose of implementing the WFD, Ireland has been divided into eight river basin districts or areas of land that are drained by a large river or number of rivers and the adjacent estuarine/coastal areas. For the purposes of assessment, reporting and management, water in the RBDs 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)

In addition to these assessments which are included in each of the RBD Characterisation Reports, the WFD requires that Registers of Protected Areas (RPAs) are compiled for a number of water bodies or part of water bodies which must have extra controls on their quality by virtue of how their waters are used by people and by wildlife.

3.3.2 Water Framework Directive Risk Assessment

In terms of achieving the WFD's objectives by 2015 the two bodies of the Vartry River and the Rathnew Stream, the transitional waters of the Murrough and the coastal waters to the east of the Plan area are *at significant risk* (dark purple - see Figure 3.3). Groundwater in the area is classified as being *probably not at significant risk*.

Although groundwater is not considered by the Eastern River Basin District Characterisation Report to be at significant risk of meeting the objectives of the WFD, groundwater in the area is included on the Register of Protected Areas for Groundwater

The Wicklow Head SPA and the Murrough SPA have been listed on the RPA for *Species SPA*. The Vartry River has been listed on the RPA for *Habitats Rivers* with a length of the river at Ashford listed on the RPA for *Drinking Water*. It is noted that groundwater beneath the study area is listed on the RPA for *Groundwater Drinking Water*.

Entries to the Register of Protected Areas for the area are shown on Figure 3.4.

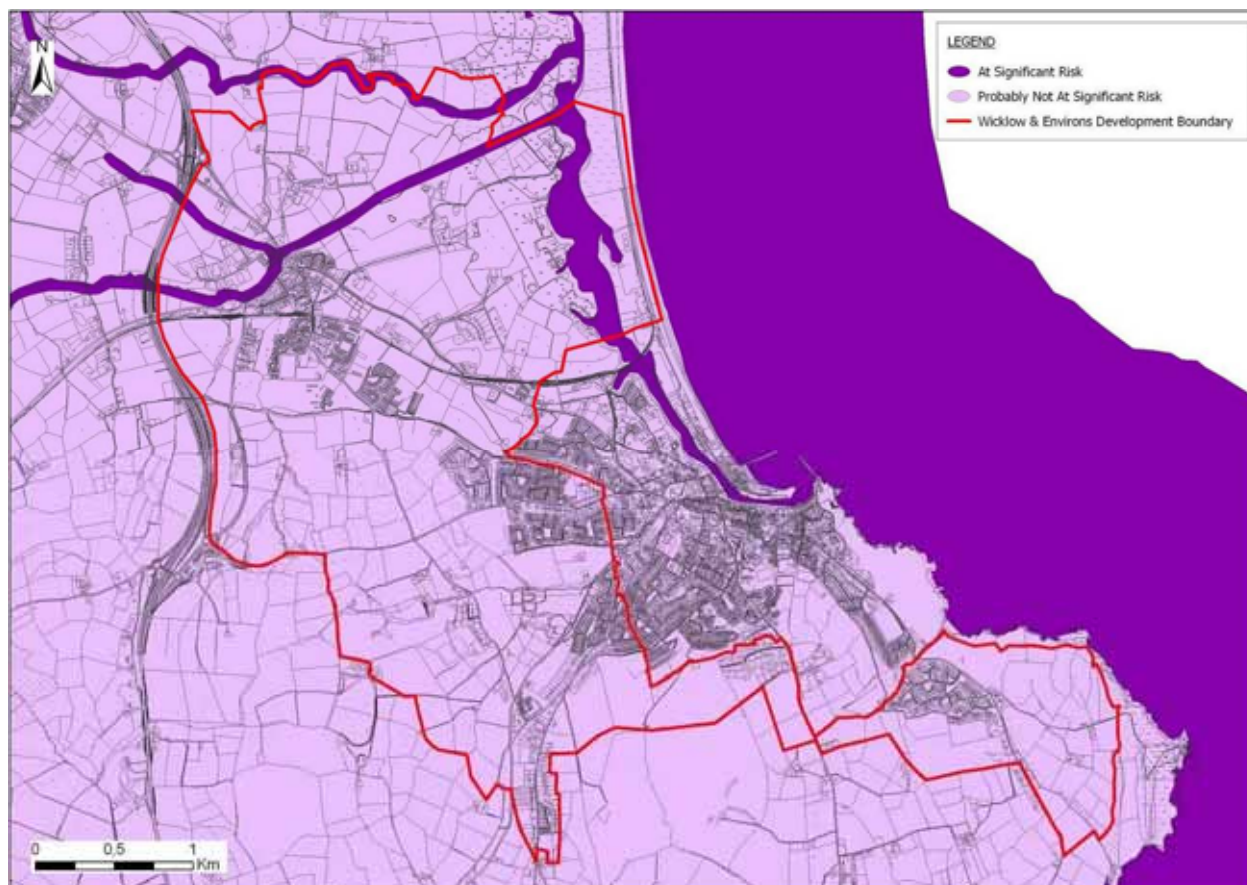


Figure 3.3 WFD Risk Assessment for River, Ground, Transitional and Coastal Waters

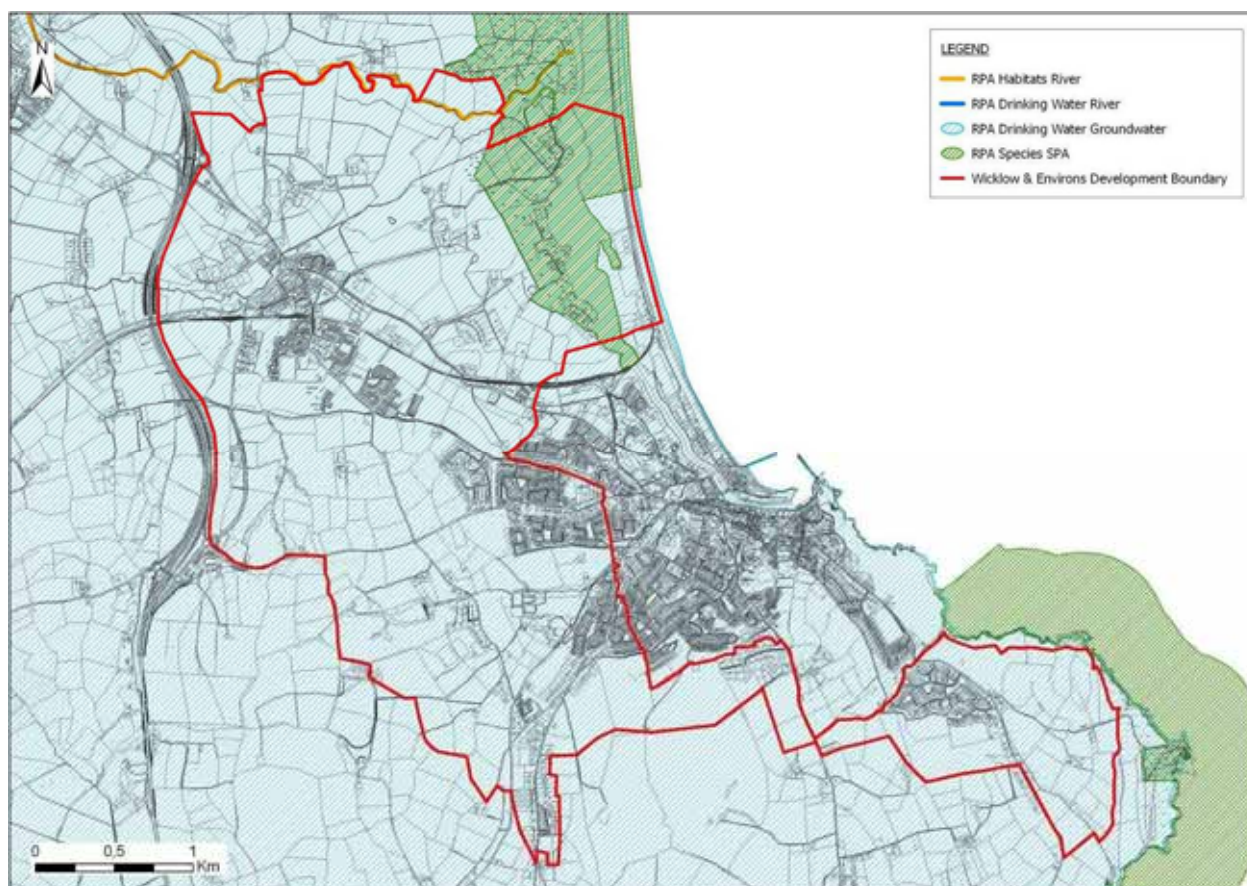


Figure 3.4 Register of Protected Areas

3.3.3 Groundwater Vulnerability

Groundwater is stored in the void spaces in underground layers of rock, or aquifers. These aquifers are permeable, allowing both the infiltration of water from the soils above them and the yielding of water to surface and coastal waters.

GSI Groundwater Productivity Ratings show that the groundwater beneath the study area to the north of the Rathnew-Wicklow main road is generally identified as being part of an aquifer which is rated as being locally important. This locally important aquifer is a bedrock aquifer which is moderately productive only in local zones - it is capable of yielding enough water to boreholes or springs to supply villages, small towns or factories. Because of the importance of this groundwater as drinking water to humans particular attention must be paid to its protection from contamination.

The Geological Survey of Ireland rates aquifers according to their vulnerability to pollution (see Figure 3.5). This rating indicates that the Wicklow town and Environs area to the south of the Rathnew-Wicklow main road is generally rated as *Extreme* (red, pink and salmon) due to the shallow depth to bedrock. North of the Rathnew-Wicklow main road, the vulnerability varies from *Low* to *Moderate* due to the increased thickness of soils overlying the bedrock.

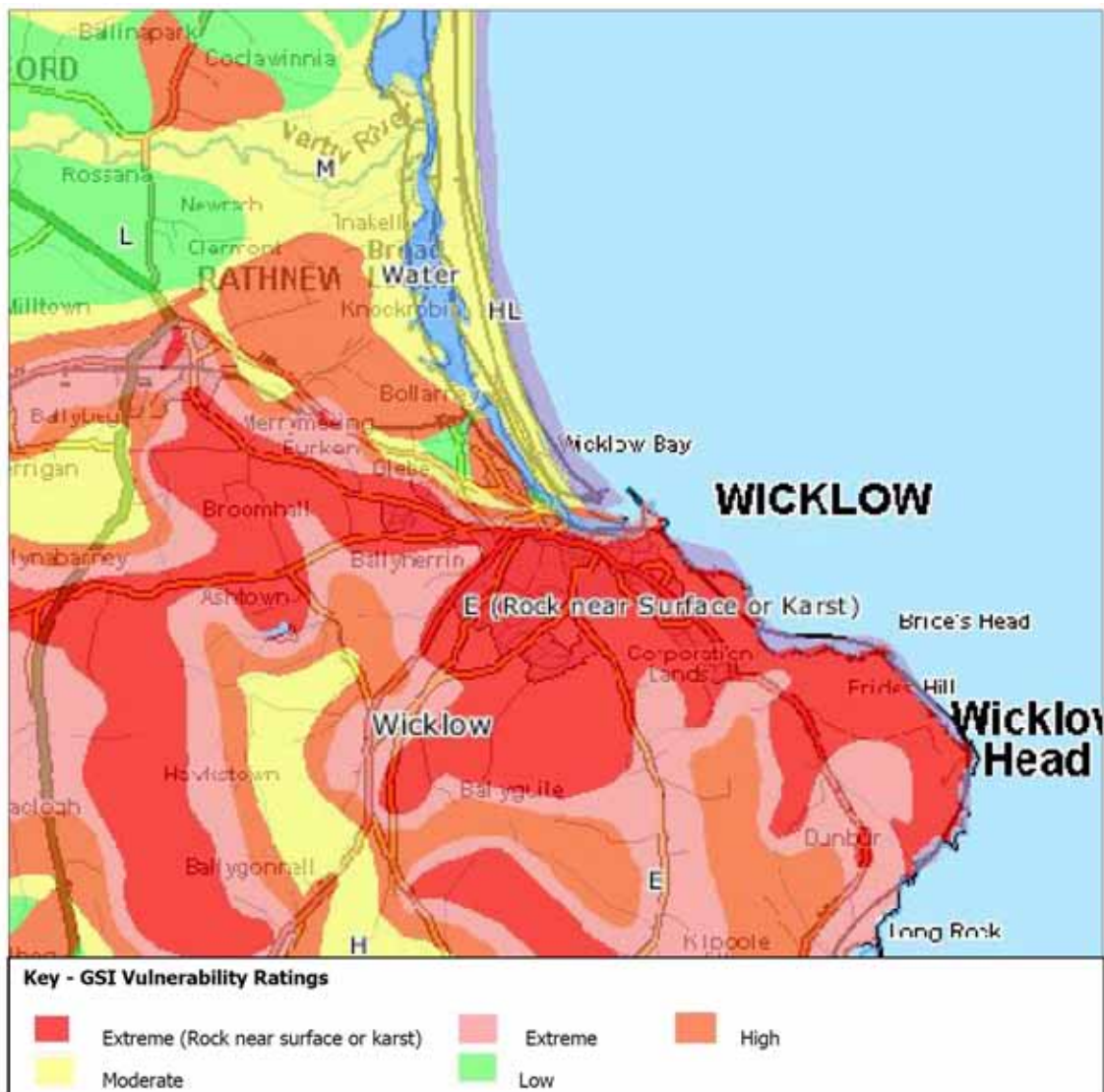


Figure 3.5 GSI Groundwater Vulnerability Ratings

3.3.4 Potential Impacts

3.3.4.1 Surface Waters

As most the settlement of the Wicklow Environs and Rathnew area is located within the catchments of water bodies which are classed as being at significant risk of meeting the objectives of the Water Framework Directive, any developments within this area that are not connected with an adequately sized and effectively operated waste water treatment plant would almost certainly cause significant deterioration in the quality of water bodies - riverine, transitional and coastal. This is a significant risk that must be mitigated against by the timely development of appropriate waste water treatment facilities.

3.3.4.2 Groundwaters

The soils and geology of the Wicklow Environs and Rathnew area create conditions which mean that groundwater is generally highly and extremely vulnerable to pollution.

In addition to this vulnerability the groundwater is listed on the RPA for Groundwater Drinking Water and is identified by the GSI as being part of an aquifer which is rated as being locally important.

3.4 Waste Water Treatment Needs

The Wicklow Environs and Rathnew area has experienced relatively large growth in recent years with residential development exceeding infrastructural development. There is inadequate wastewater treatment capacity for existing and permitted development and no capacity for further development with the existing plant hydraulically and biologically overloaded, although construction of a new plant is planned.

3.4.1 Potential Impacts

Continuing the failure to provide appropriate waste water treatment infrastructure and capacity alongside development would be likely to result in adverse impacts upon: river and groundwater (including drinking water) quality; human health; biodiversity and flora and fauna; and Wicklow County Council's ability to meet its legislative requirements with regard to the WFD. It is essential that sufficient waste water treatment infrastructure capacity is provided in a timely manner, alongside development in order to avoid such impacts. The construction of a new waste water treatment plant will help to solve this problem and enable future population growth.

3.5 Cultural Heritage

3.5.1 Baseline Summary

3.5.1.1 Archaeology

There are eleven Recorded Monuments which are protected under legislation located within the study area, five of which are dispersed across the Wicklow Environs and Rathnew area and five of which are located on Wicklow/Dunbur Head adjacent to the plan boundary. The monuments include an enclosure field system, two sites of a church and graveyard, a cist, a Souterrain, a holy well, and a rock shelter. These monuments mapped on Figure 3.6

3.5.1.2 Architecture

There are eleven entries to the Record of Protected Structures which are protected under legislation and located within or adjacent to the Wicklow Environs and Rathnew area. There are also twelve additional structures that are listed in the National Inventory of Architectural Heritage (NIAH). Architectural heritage is mapped on Figure 3.6 alongside archaeological heritage.

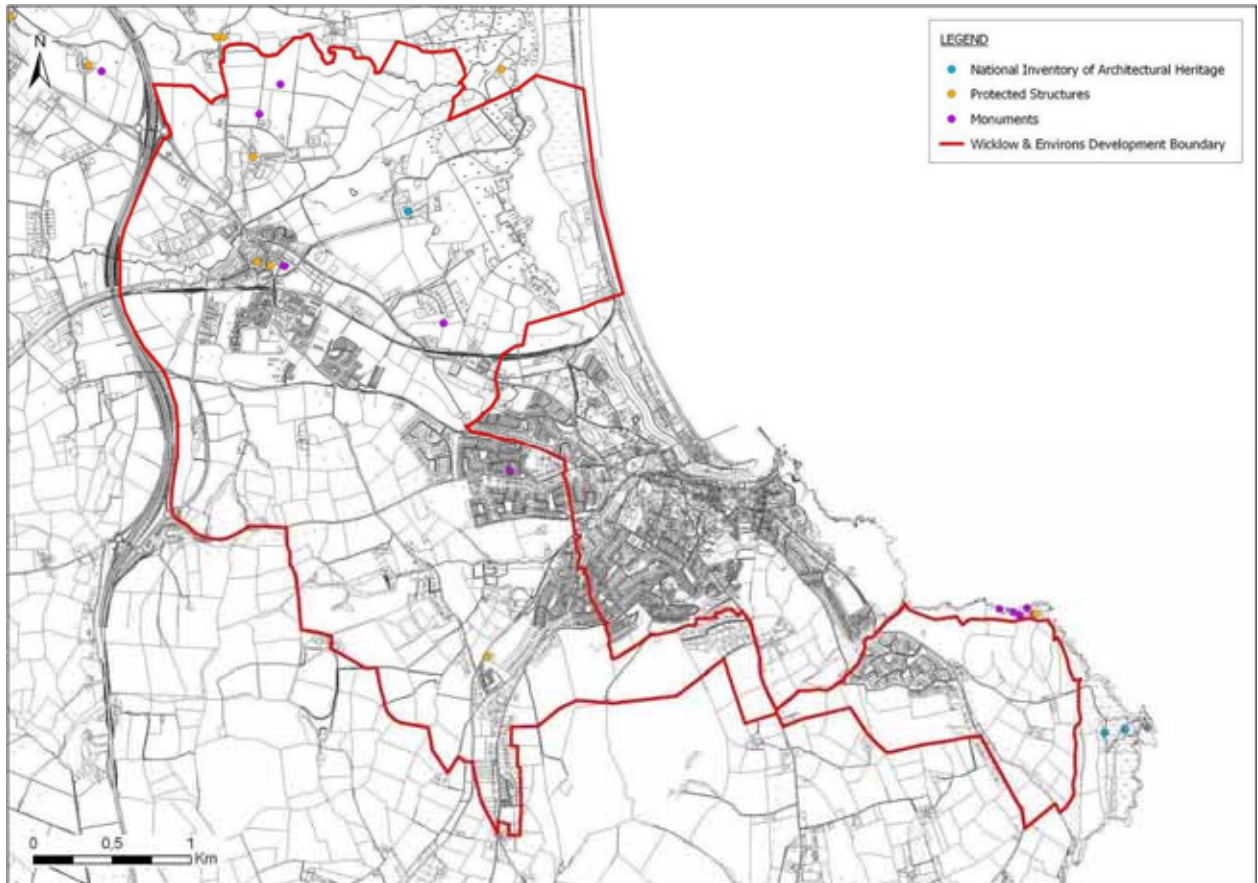


Figure 3.6 Cultural Heritage

3.5.2 Potential Impacts

Taking into account all the policies and objectives of the Plan and the mitigation measures included in the Environmental Report it is likely that the protection of cultural heritage will be significantly benefited on implementation of the Plan.

3.6 Landscape

Wicklow County Council's Landscape Characterisation (2004)¹ classifies landscapes in Wicklow according to their sensitivity – their ability to accommodate change or intervention without suffering unacceptable effects to character and values.

The most vulnerable and sensitive landscapes, which are considered to be of greatest scenic value are identified as being Areas of Outstanding Natural Beauty. The Wicklow coastline is one of five of these areas in the County covered. In the study area this classification covers a width of approximately 1 km along the entire length of the coastline with the Wicklow Town Urban Area omitted. The Area of Outstanding Natural Beauty to the north of Wicklow Town is dominated by the open setting of the Broad Lough and the Murrough while to the south of the town it is dominated by Wicklow Head which overlooks Wicklow Town, extending out into the sea. Much of this landscape area is unspoilt and is subject to a number of ecological designations within or adjacent to the study area including those attributed to the Murrough, Broad Lough and Wicklow Head.

¹ Wicklow County Council (2004) *Wicklow County Development Plan 2004 – 2010 County Landscape Characterisation*
Wicklow: Wicklow County Council

The other landscape area within the Wicklow Environs and Rathnew area is the Eastern Corridor Area within the (see Figure 3.7). This classification is of a lesser sensitivity and mainly covers the lowland area which is under the influence of development arising around the N11 road.

Within and adjacent to the Wicklow Environs and Rathnew area, the Landscape Characterisation identifies and protects a number of Prospects of Special Amenity as well as a View of Special Amenity Value or Special Interest. These features are mapped on Figure 3.7.

3.6.1 Potential Impacts

If development under the plan is not controlled cumulative visual impacts could occur - especially in the visually prominent, elevated area in the southern portion of the study area - as a result of developments such as one off houses. Such developments, which individually often do not have significant adverse impacts, have the potential to cumulatively and adversely significantly impact upon sensitive landscapes.

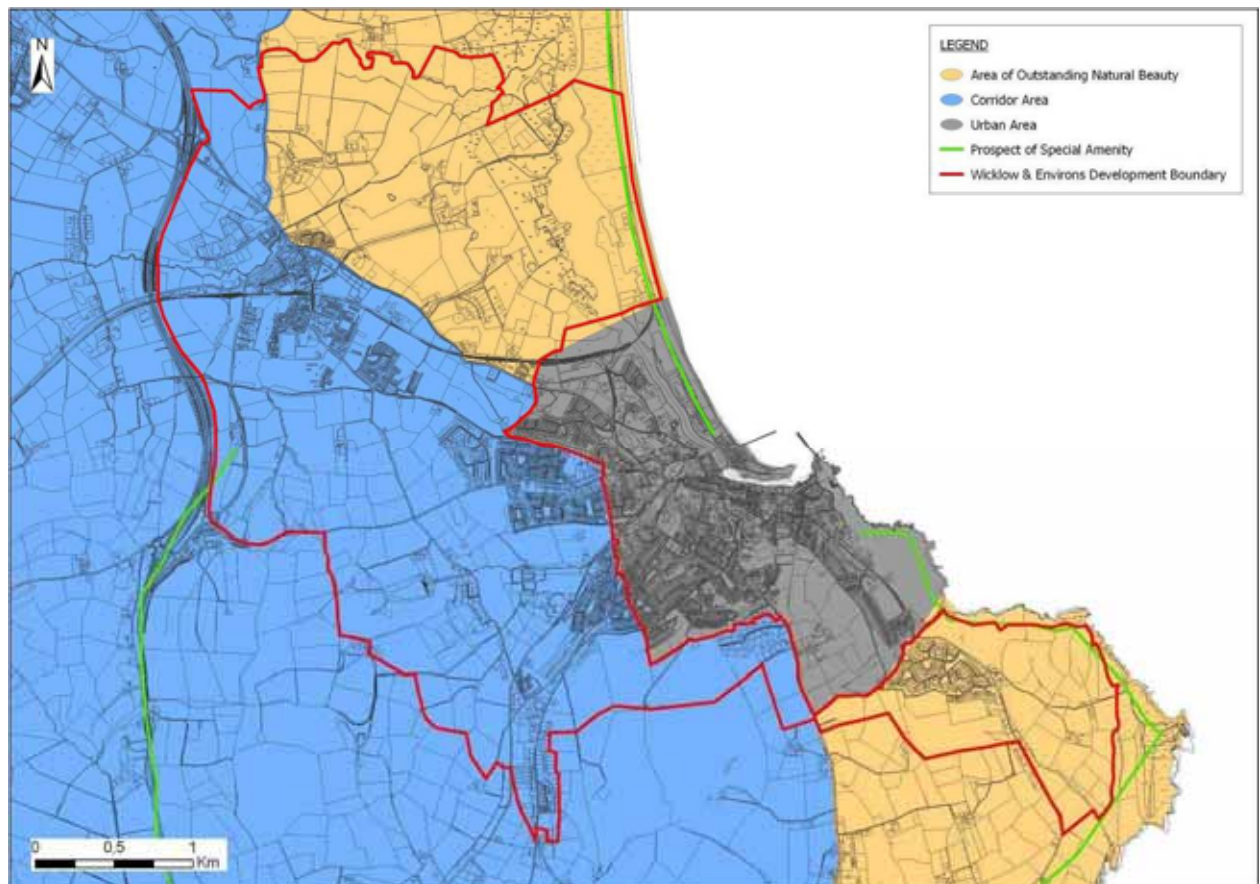


Figure 3.7 Landscape Sensitivity Ratings

Section 4 Alternative Plan Scenarios

4.1 Introduction

This section summarises three alternative scenarios for the Wicklow Environs and Rathnew Local Area Plan.

The scenarios provide realistic alternative visions of how the future development of the area might occur under different planning and development strategies.

An evaluation of the likely environmental consequences each of the scenarios is summarised in Section 5.

It is noted that the Plan that has emerged from the Plan preparation process has a close correlation to Scenario 2.

4.1.1 Scenario 1 *Minimal Development Envelope*

Characteristics of this Scenario (see Figure 4.1) include extensive transitional zones between developed areas and open countryside formed by areas zoned for various categories of open space and amenities. In particular it provides a very significant and proactive protection for the rising lands to the south of the town that are visually conspicuous as well to the equally conspicuous western shore of Broad Lough. Development west of the town is largely contained - both visually and physically - between the Motorway and the rising ground around Tinahilly house.

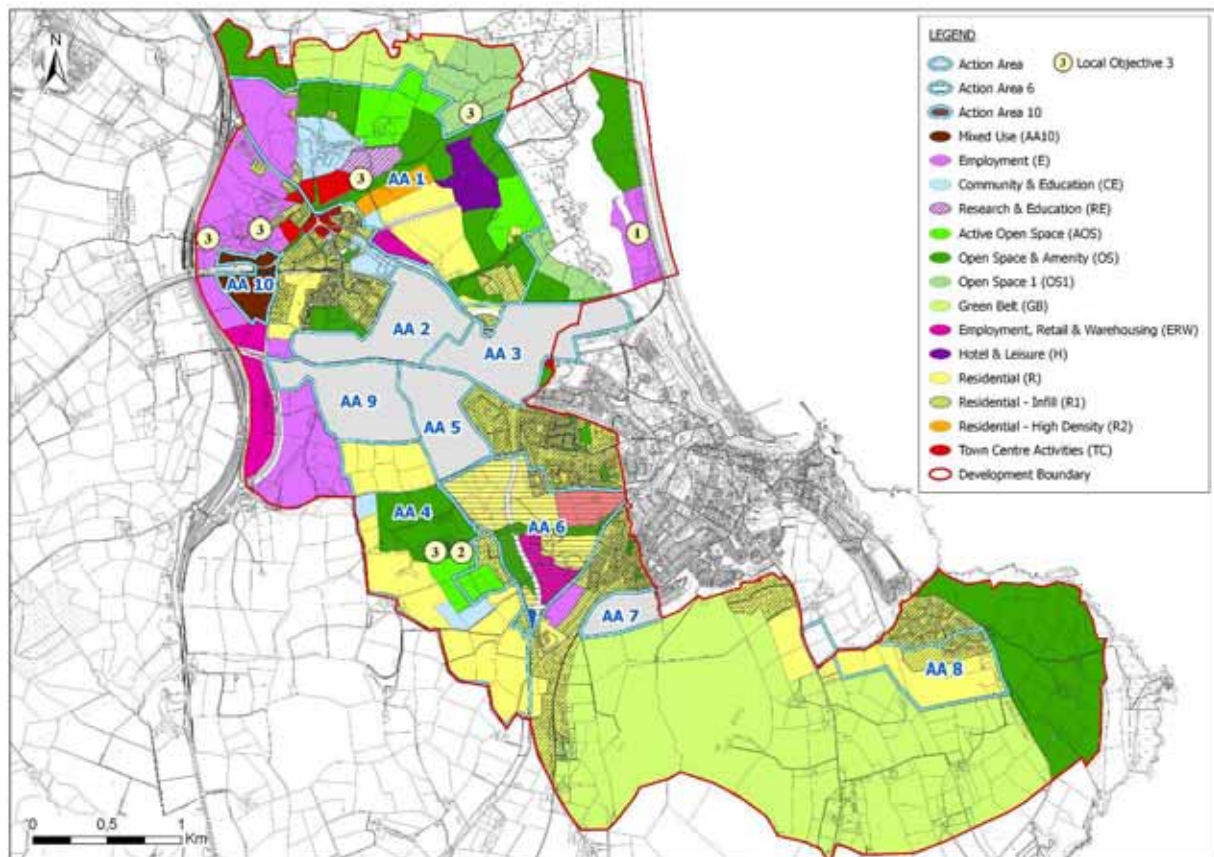


Figure 4.1 Scenario 1 Minimal Development Envelope

4.1.2 Scenario 2 *Moderate Development Envelope*

Characteristics of this Scenario (see Figure 4.2) are similar to Scenario 1 with the following exceptions that have environmental consequences: the employment area impinges further northward along the natural habitats of the Murrough²; there is no protection afforded to the rising ground to the south of the town; there is less open space around the perimeter of the town; housing begins to encroach closer to the southern boundaries of the Broad Lough³, and; development along the northern boundary has no zoned transition between development land and unzoned agricultural lands.

This scenario would include the following Local Objectives:

- Local Objective 1: Planning applications on this site must be accompanied by an eco-hydrological assessment. This must comply with Section 18 of the European Communities (Natural Habitats) Regulations 1997 and identify and evaluate the direct and indirect effects which the development would be likely to have upon the designated site, ecological connectivity and drainage. Such planning applications must also be accompanied by evidence of consultation between the applicant and the National Parks and Wildlife Service about the assessment.
- Local Objective 3: to provide for the development of greenway linkages with the objective of facilitating non-motorised transport modes.

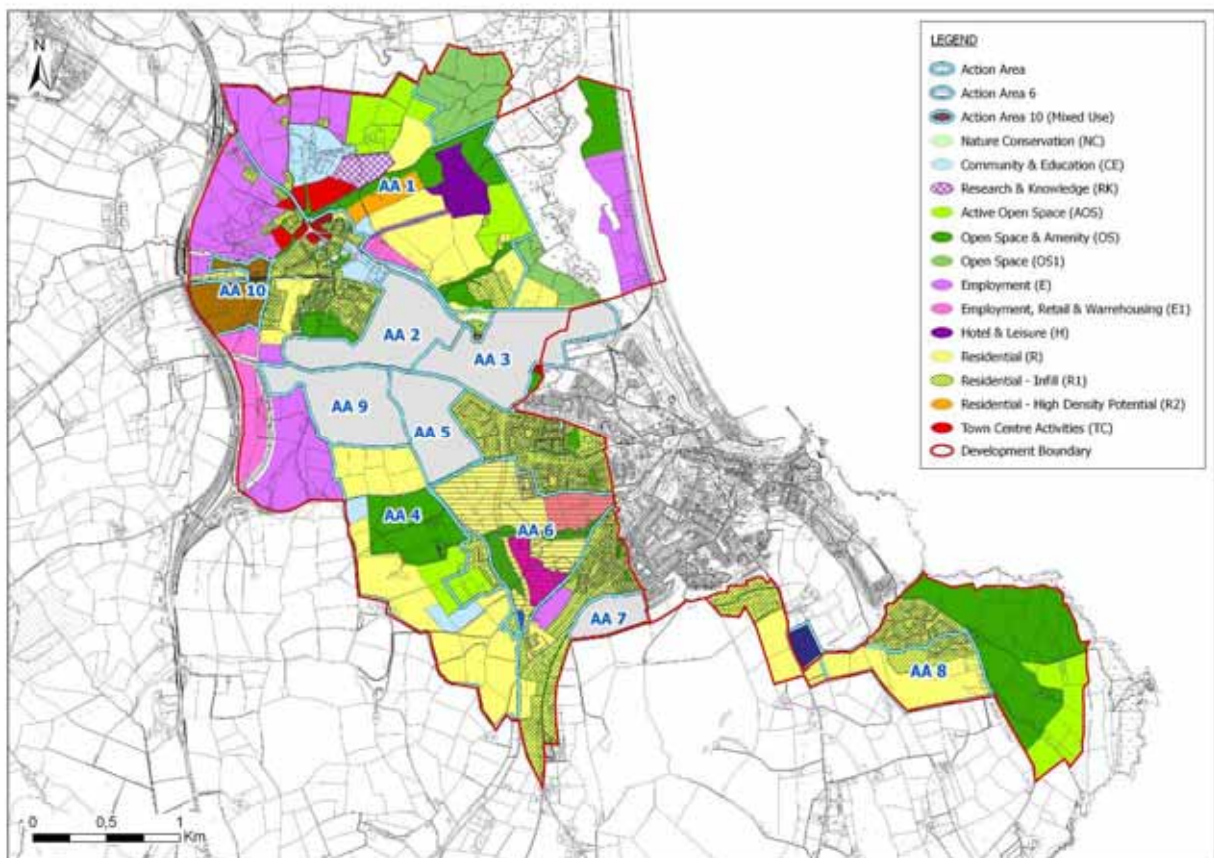


Figure 4.2 Scenario 2 Moderate Development Envelope

² The Murrough SPA 004186; The Murrough NHA 000730; The Murrough Wetlands cSAC 002249

³ Ibid.

4.1.3 Scenario 3 *Maximum Development Envelope*

This Scenario (see Figure 4.3) represents a further intensification of the developments and associated impacts noted in Scenario 3. This Scenario envisages no transition between any zoned land and the unzoned rural areas. It proposes visually conspicuous development on rising lands in many locations – most notably south of the town, along the shore of Broad Lough, and on rising ground to the south-west of the town. It will significantly and adversely affect habitats and ecological process on wetland to the north of the town as well as along the western shore of Broad Lough and along the Murrough itself. It extends development beyond the boundary of the motorway and will lead to unsustainable patterns of local and personal mobility. The proposed area of high density Residential development will be inherently visually conspicuous on account of the existing topography.

This scenario would include the following Local Objectives:

- Local Objective 2: to provide for a major out of town shopping centre
- Local Objective 3: to provide for medium density housing with views of the Murrough

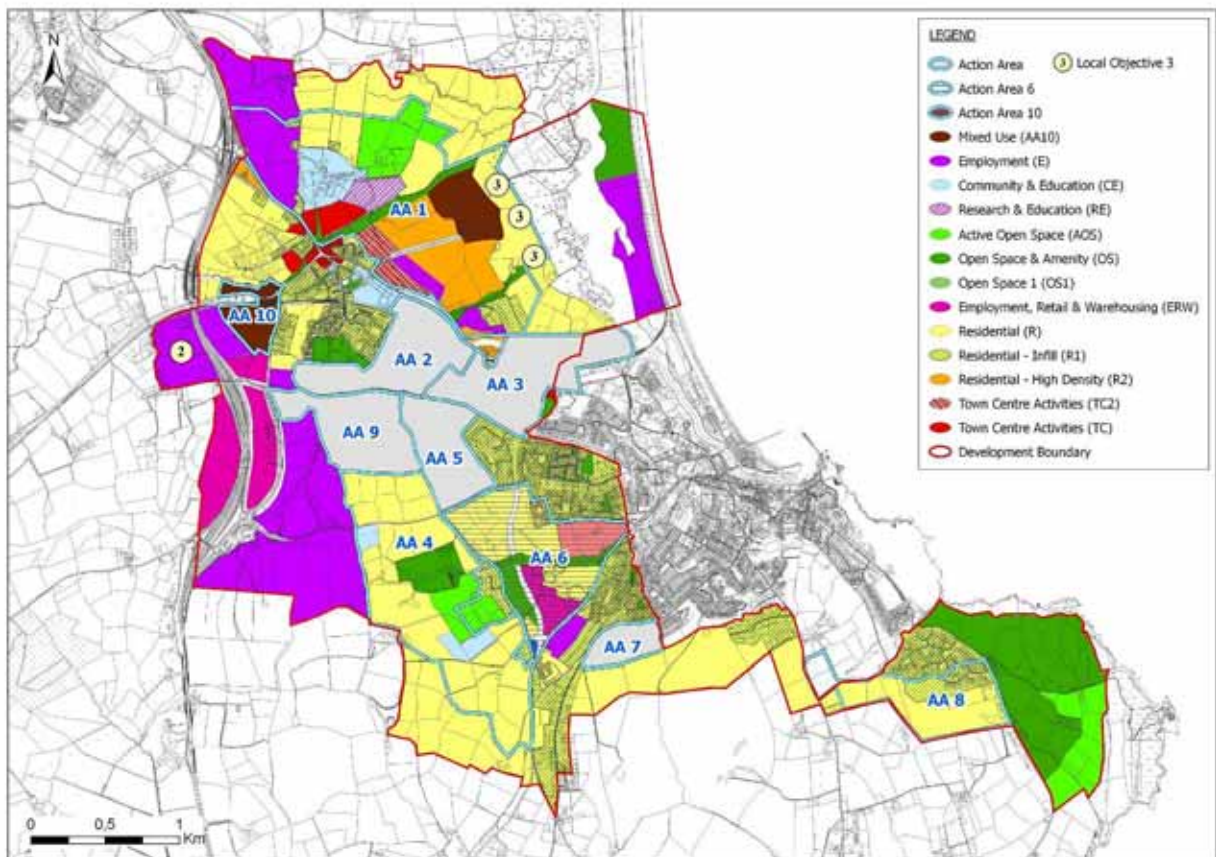


Figure 4.3 Scenario 3 Maximum Development Envelope

Section 5 Evaluation of Alternative Plan Scenarios

5.1 Introduction

This section summarises the evaluation of the relative merits of a range of alternative scenarios for the development of the Wicklow Environs and Rathnew area under a range of types of plan regimes. This evaluation sought to understand whether each alternative was likely to: improve; conflict, or; have a neutral interaction with the area's environment.

Scenarios are evaluated for both planning and environmental impacts against both the existing environment, including overlay mapping and Strategic Environmental Objectives (SEOs). The evaluation of the alternatives against overlay mapping and against the environmental baseline is provided below.

5.2 Evaluation against Overlay Mapping

In order to identify the extent to which environmental sensitivities are likely to be impacted upon by implementation of the Plan, overlay mapping - which overlays selected environmental factors giving them equal weight - was used (see Figure 5.1).

Environmental sensitivities are indicated by colours and range from acute vulnerability (dark red) to extreme vulnerability (red) to high vulnerability (orange) to moderate vulnerability (yellow) and low vulnerability (green). Where the mapping shows a concentration of environmental sensitivities there is an increased likelihood that development will conflict with these sensitivities and cause environmental deterioration. This is particularly the case where the cumulative development of small-scale projects, such as small housing developments, gradually causes a slow deterioration of a resource, such as water quality.

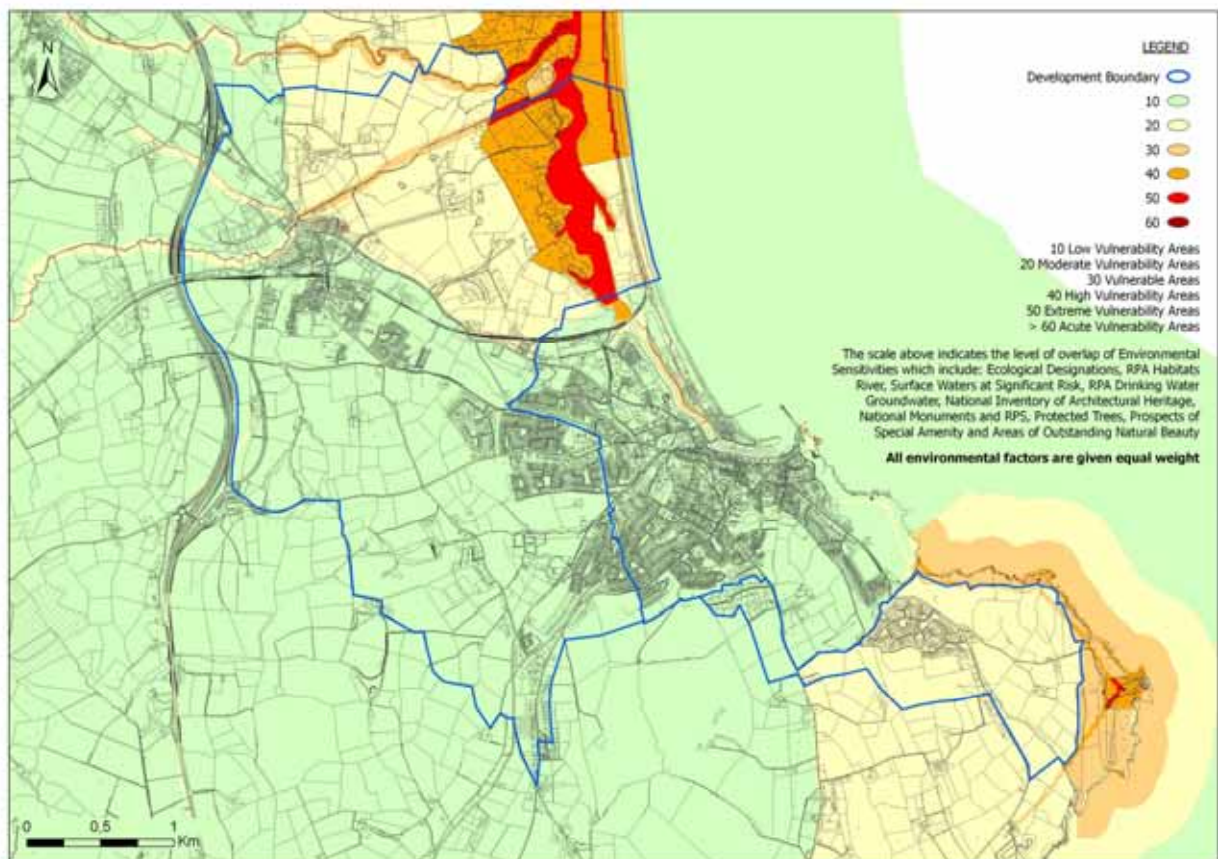


Figure 5.1 Overlay of Weighted Environmental Sensitivities

By overlaying the weighted environmental sensitivities over the areas in which most development would be likely to occur under each of the scenarios, the vulnerable areas likely to be affected under each scenario were quantified.

Under this evaluation, Scenario 3 would be likely to result in more adverse environmental impacts than each of the other two Scenarios. If mitigated, Scenarios 1 and 2 would be likely to result in a lesser frequency and magnitude of impacts than Scenario 3.

5.3 Evaluation against Environmental Baseline

• Scenario 1 – *Minimal Development Envelope*

With the exception of the inadequacy of the wastewater treatment facilities – this Scenario has the least environmental effect. It has very good protection - using zoned buffer lands - of important ecological and visual amenities. The resultant settlement pattern is tightly concentrated which will promote sustainable patterns of mobility and the layout and boundaries conform well to topography.

• Scenario 2 – *Moderate Development Envelope*

This scenario lacks the extensive buffer protection of Scenario 1. Otherwise it provides a fairly compact layout that currently respects, but does not actively protect, environmental sensitivities. Failure to provide waste water treatment infrastructure and capacity in line with population growth would be likely to result in significant adverse impacts upon surface, estuarine and coastal waters at significant risk of meeting objectives under the Water Framework development, upon biodiversity and flora and fauna and upon human health.

• Scenario 3 – *Maximum Development Envelope*

This Scenario will give rise to significant and adverse environmental affects on the ecology, scenery and services of the area on account of encroachment onto rising ground around the town, excessive proximity of unsuitable landuses to the Broad Lough, dense development on elevated topography, development beyond the motorway and the absence of any transitional uses.

As is the case with Scenario 1 and Scenario 2, failure to provide waste water treatment infrastructure and capacity in line with population growth would be likely to result in significant adverse impacts upon surface, estuarine and coastal waters at significant risk of meeting objectives under the Water Framework development, upon biodiversity and flora and fauna and upon human health.

5.4 The Preferred Alternative

On the basis of the above analysis above, which is expanded upon in the Environmental Report, Scenario 1 would be likely to improve the status certain aspects of the environment and emerges as the most environmentally sustainable option. If unmitigated, Scenarios 2 and 3 would be likely to result in a number of adverse environmental impacts. Having regard to Planning considerations, Scenario 2 provides a better balance between environmental protection and economic and social development and therefore provides for the most overall sustainable option. Under Scenario 2, potential conflicts with environmental objectives can largely be offset by appropriate mitigation measures, as indicated. Significant adverse impacts on designated ecological sites (The Murrough SPA 004186; The Murrough NHA 000730; The Murrough Wetlands cSAC 002249) will be avoided by compliance with, inter alia, mitigation measure MM9.

Scenario 2 was submitted to the Elected Members of the Council along with an earlier draft of the environmental report. The Elected Members adopted a Plan which closely corresponds to this preferred alternative (see Figure 2.1) but which included a number of changes which would be likely to be mitigated by measures integrated into the LAP, including those which are summarised under Section 6.

Section 6 Mitigation and Monitoring Measures

6.1 Mitigation

Mitigation measures are measures envisaged to prevent, reduce and, as fully as possible, offset any significant adverse impacts on the environment of implementing the Plan. Mitigation involves ameliorating significant negative effects. Where there are significant negative effects, consideration is given in the first instance to preventing such effects or, where this is not possible for stated reasons, to lessening or offsetting those effects. Mitigation measures can be roughly divided into those that: *avoid* effects; *reduce* the magnitude or extent, probability and/or severity of effect; *repair* effects after they have occurred, and; *compensate* for effects, balancing out negative impacts with other positive ones.

Mitigation measures for a number of environmental topics which arise out of the SEA process and which are expanded upon in the Environmental Report are identified and summarised below. If these mitigation measures are not integrated into the Plan then it is likely that significant adverse environmental impacts will arise as a result of its implementation.

MM1: Designated Ecological Sites

Seeks to protect of designated ecological sites by requiring the submission of an eco-hydrological assessment with certain planning applications

MM2: Watercourses

Seeks to: protect water courses by requiring certain planning applications to demonstrate that relevant developments would not impact upon the aquatic biodiversity of water courses, and; improve ecological connectivity and promote non motorised transport modes by examining the examination of greenway linkages

MM3: Ecological Networks

Seeks to protect ecological connectivity and biodiversity and flora & fauna by requiring certain planning applications to demonstrate that losses to ecological corridors would not undergo effects which could not be mitigated by avoidance or compensation

MM4: Water Quality Protection

Seeks to protect water quality, aquatic biodiversity and human health by requiring new development to be serviced by appropriate waste water treatment

MM5: River Basin District (RBD) Management Plan

Seeks to protect water quality by integrating the relevant policies and objectives of the Eastern River Basin Management Plan into the Local Area Plan

MM6: Archaeological Heritage

Seeks to protect archaeological heritage by requiring the submission of an archaeological assessment with certain planning applications

MM7: Architectural Heritage

Seeks to protect of architectural heritage by requiring the submission of an architectural assessment with certain planning applications

MM8: Landscape Heritage

Seeks to protect of landscape heritage by requiring the submission of a landscape assessment with certain planning applications

MM9: Designated Ecological Sites II

Seeks to protect of designated ecological sites by avoiding impacts.

6.2 Monitoring

The SEA Directive requires that the significant environmental effects of the implementation of plans and programmes are monitored. The Environmental Report puts forward proposals for monitoring the Plan which are adopted alongside the Plan.

Monitoring enables, at an early stage, the identification of unforeseen adverse effects and the undertaking of appropriate remedial action. In addition to this, monitoring can also play an important role in assessing whether the LAP is achieving its environmental objectives and targets - measures which the LAP can help work towards - whether these need to be re-examined and whether the proposed mitigation measures are being implemented.

The Environmental Report identifies indicators - which allow quantitative measures of trends and progress in the environment over time. Measurements for indicators should come from existing monitoring sources and no new monitoring should be required to take place.

A preliminary monitoring evaluation report on the effects of implementing the LAP will be prepared within two years of the making of the plan.

Wicklow County Council are responsible for collating existing relevant monitored data, the preparation of a monitoring report, the publication of this report and, if necessary, the carrying out of corrective action.