

WICKLOW - RATHNEW

DEVELOPMENT PLAN 2013 – 2019

STRATEGIC ENVIRONMENTAL ASSESSMENT (SEA) STATEMENT



WICKLOW TOWN COUNCIL & WICKLOW COUNTY COUNCIL

Wicklow Town Council, Town Hall, Market Square, Wicklow Town
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Section 1

Introduction

1.1 Terms of Reference

This is the Strategic Environment Assessment Statement for the Wicklow Rathnew Development Plan 2013-2019, prepared in accordance with the requirements of the Planning and Development (Strategic Environmental Assessment (SEA)) Regulations 2004 (SI 436 of 2004).

1.2 SEA Definition

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 insure that these effects are appropriately addressed at the earliest appropriate stage of decision-making on a par with economic and social considerations.

1.3 Legislative Context

Directive 2001/42/EC of the European Parliament and of the Council of Ministers, of 27 June 2001, on the assessment of the effects of certain plans and programmes on the environment, referred to hereafter as the SEA Directive, introduced the requirement that SEA be carried out on plans and programmes which are prepared for a number of sectors, including land use planning. The SEA Directive was transposed into Irish Law through the European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 (Statutory Instrument Number (SI No.) 435 of 2004) and the Planning and Development (Strategic Environmental Assessment) Regulations 2004 (SI No. 436 of 2004). Both sets of Regulations became operational on 21 July 2004.

The SEA Directive and the instruments transposing it into Irish Law require that after the adoption of a plan or programme, the plan or programme making authority is required to make a Statement available to the public, the competent environmental authorities and, where relevant, neighbouring countries. This Statement is referred to as a SEA Statement (DEHLG, 2004)¹.

1.4 Content of the SEA Statement

The SEA Statement is required to include information summarising:

- a) How environmental considerations have been integrated into the Development Plan
- b) How
 - the Environmental Report,
 - submissions and observations made to the planning authority on the proposed Development Plan and Environmental Report
 - any transboundary consultations have been taken into account during the preparation of the plan
- c) The reasons for choosing the plan as adopted, in the light of the other reasonable alternatives dealt with, and
- d) The measures decided upon to monitor the significant environmental effects of implementation of the Plan.

¹ Department of the Environment, Heritage and Local Government (2004) Implementation of SEA Directive (2001/42/EC): Guidelines for Regional Authorities and Planning Authorities Dublin: Government of Ireland.

1.5 Implications of SEA for the Development Plan

As a result of the aforementioned legislation, the Wicklow - Rathnew Development Plan was required to undergo SEA. The findings of the SEA were expressed in an Environmental Report, which was submitted to the Elected Members alongside the proposed Draft Development Plan. The purpose of the Environmental Report was to provide a clear understanding of the likely environmental consequences of adopting the Development Plan.

Changes made to the proposed Draft Development Plan were evaluated for their environmental consequences and the Environmental Report was updated to become the final Environmental Report.

The Draft Development Plan and the associated Environmental Report were placed on public display on the 20th of July 2012 to the 28th of September 2012. Addendum I to the Environmental Report² was included in the Manager's Report circulated to Elected Members. Addendum I proposed updates to the Environmental Report as a result of submissions, as appropriate.

Further to the display of the Draft Development Plan, the elected members resolved to make amendments to the Draft Plan. On assessment of the proposed amendments, there were a number of amendments that were considered to be 'material' and therefore the proposed amendments were required to be placed on public display, which occurred from the 1st May 2013 to 31st May 2013.

The proposed amendments to the Draft Plan were evaluated for their environmental consequences.. Addendum II to the Environmental Report³ was published alongside the proposed amendments.

Following the consultation period on the proposed amendments and associated Environmental Report - Addendum II and the receipt of submissions, the Manager prepared his second report.

As none of the submissions received on the proposed amendments / associated Environmental Report - Addendum II related to the Environmental Report / SEA process and as the Manager did not recommend any further modifications to the proposed amendments in his report no further environmental assessment addendum was required.

On adoption of the Development Plan for Wicklow Town – Rathnew Addendum I and Addendum II were used to update the original Environmental Report into a final Environmental Report, which accompanies the adopted Plan.

At each stage of the process the Elected Members took into account the findings of the Environmental Report and/or the Addendum as appropriate.

² Which provided analysis of and responses to the submissions on the Environmental Report which were made during this first period of public display

³ Which provided an environmental assessment of the proposed amendments

Section 2

How Environmental Considerations were integrated into the Development Plan

2.1 Consultations

The Environmental Protection Agency (EPA), the Department of the Environment, Community and Local Government (DECLG), the Department of Communications, Energy and Natural Resources (DCENR), the Department of Agriculture, Fisheries and Food (DAFF) and the Department of the Arts Heritage and the Gaeltacht (DAHG) were all sent a preliminary SEA scoping report indicating that submissions or observations in relation to the scope and level of detail of the information to be included in the environmental report could be made to Wicklow Town Council / Wicklow County. Written submissions were then received on the scope of the SEA from the EPA, the DAHG and the Inland Fisheries Ireland.

Further information on the aforementioned submissions is provided under Section 3.2.

2.2 Environmental Sensitivities

2.2.1 Identification and Mapping

Environmental sensitivities in the area in question were identified and mapped in order to identify which areas of the plan area would be most vulnerable, under threat or sensitive to development and would suffer the most adverse effects if future development were to be accommodated in those areas unmitigated.

The sensitivities considered included the following:

- Designated ecological sites;
- Land cover;
- Soil Type;
- Water Framework Directive (WFD) Risk Assessments for Rivers, Lakes, Ground, Coastal and Transitional Waters;
- WFD Register of Protected Areas;
- EPA River Water Quality Monitoring;
- GSI Aquifer Vulnerability and Productivity;
- Flooding Data;
- Waste Water Treatment capacity and demand;
- Drinking water supply;
- Drinking water quality;
- Archaeological Heritage;
- Architectural Heritage;
- Landscape Character Areas; and,
- Protected Views and Prospects.

2.2.2 Early Communication

The sensitivities were communicated to the Plan-making team on a regular basis from the outset of the Plan preparation process. Identifying areas with the most limited carrying capacity within the Plan area helped future growth to be diverted away from these areas.

2.2.3 Overlay mapping

A Geographical Information System (GIS) was used in order to weight the above sensitivities and map them overlapping each other - this allowed the identification of where most sensitivities occur.

Environmental sensitivities are indicated by colours, which range from low environmental sensitivity (light yellow) to high environmental sensitivity (red). 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. (See figure 2.7 below).

2.3 Early Identification and Evaluation of Alternatives

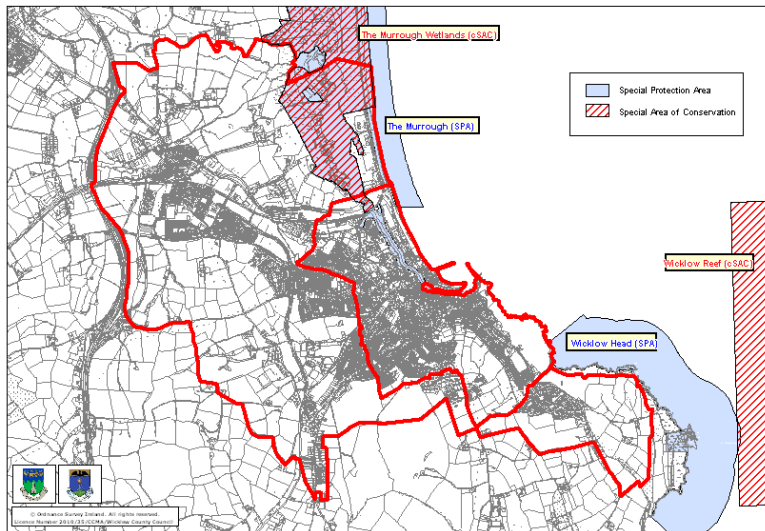
A range of potential alternative scenarios for the future development of the plan area were identified at an early stage in the process and evaluated for their likely significant environmental effects (see Sections 6 & 7 of the ER).

The environmental sensitivities and overlay mapping shown in Figures 2.1 to 2.6 below were used in order to predict and evaluate the environmental effects of implementing the scenarios.

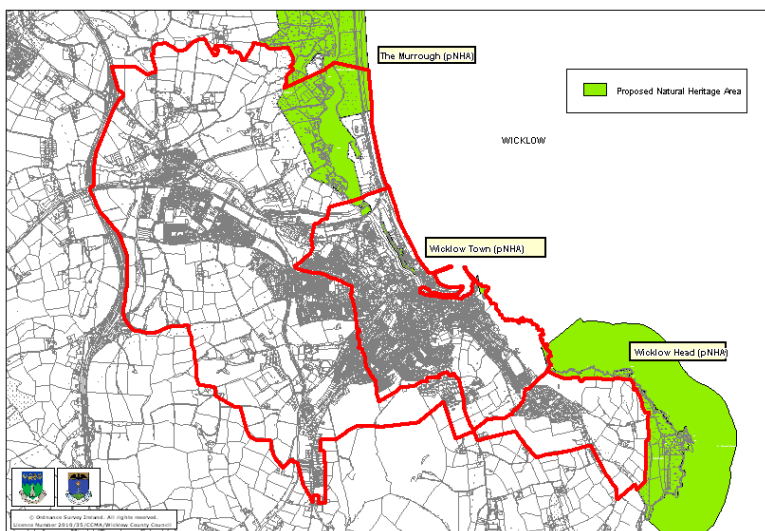
Communication of the findings of this evaluation helped the Plan-making team to make an informed choice as to which alternative was to be put before the Elected Members as the proposed Plan.

Communication of this evaluation to the Elected Members through the Environmental Report helped the Elected Members to make an informed choice with regard to the making of the Development Plan.

Mitigation measures which arose from the evaluation and which were integrated into the Development Plan are detailed under Section 2.4 of this report.



Natura 2000 Sites

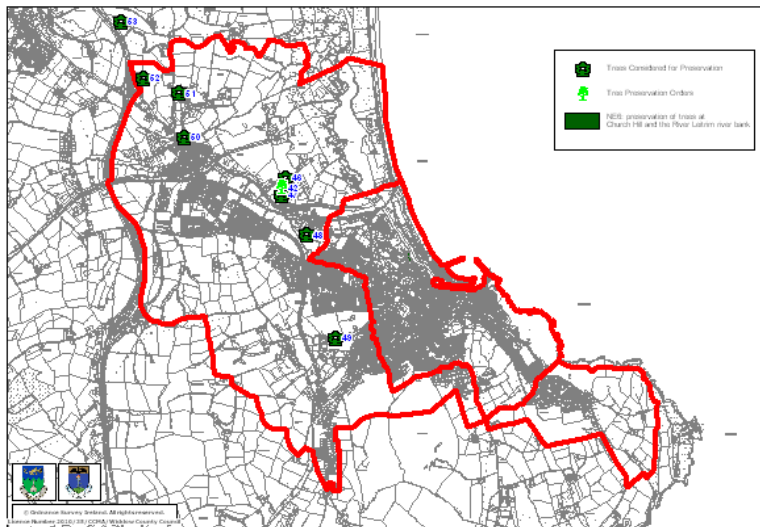


Proposed NHAs

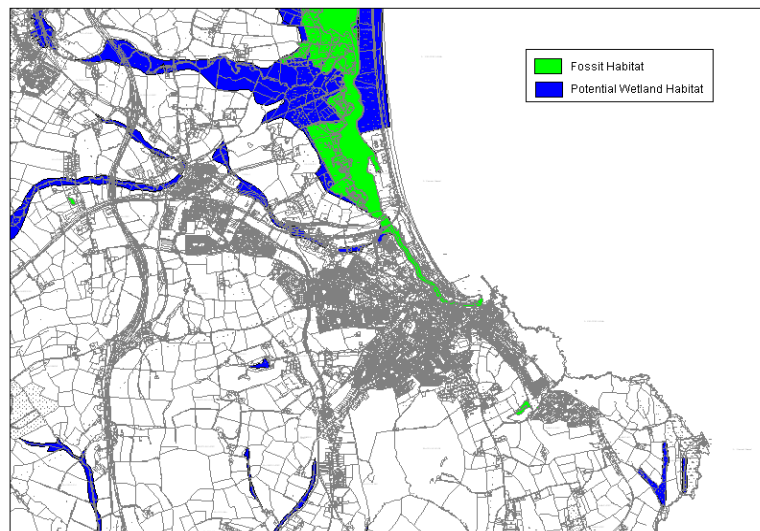


Urban Habitat Mapping Study 2006

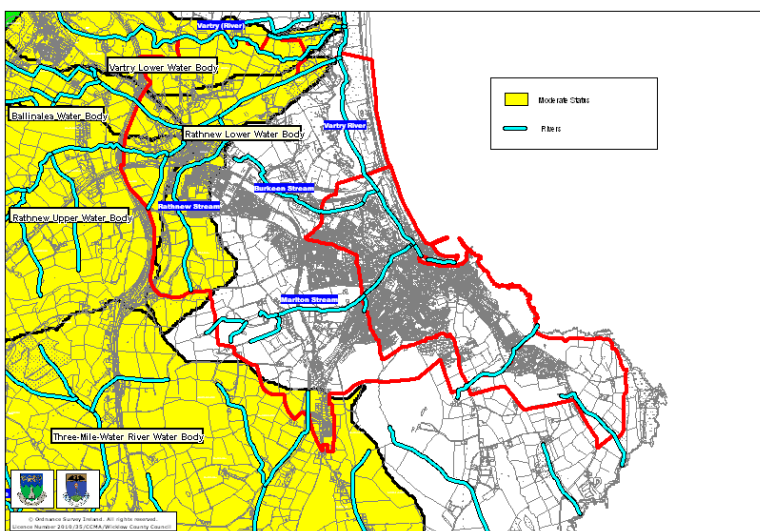
Figure 2.1 Environmental Sensitivities



Trees Listed for Protection

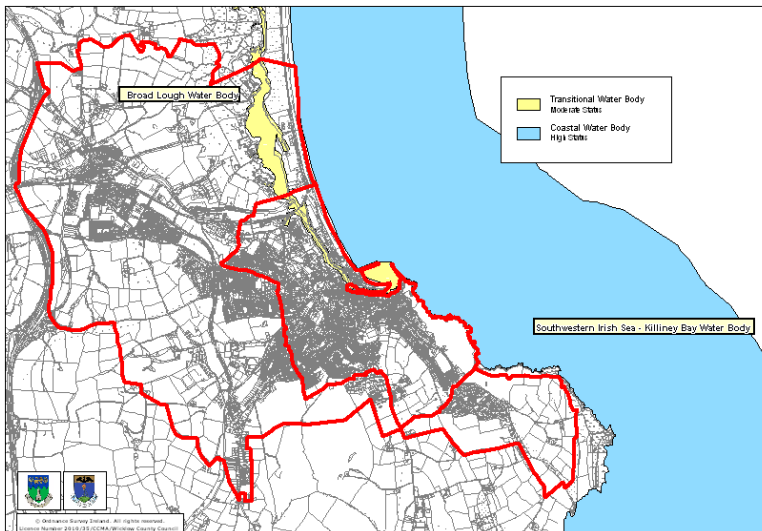


Wicklow Wetland Survey 2011

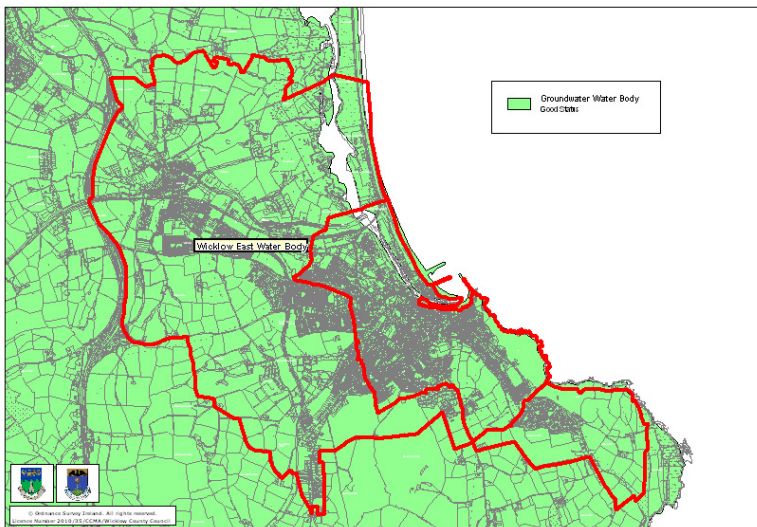


River Water Bodies

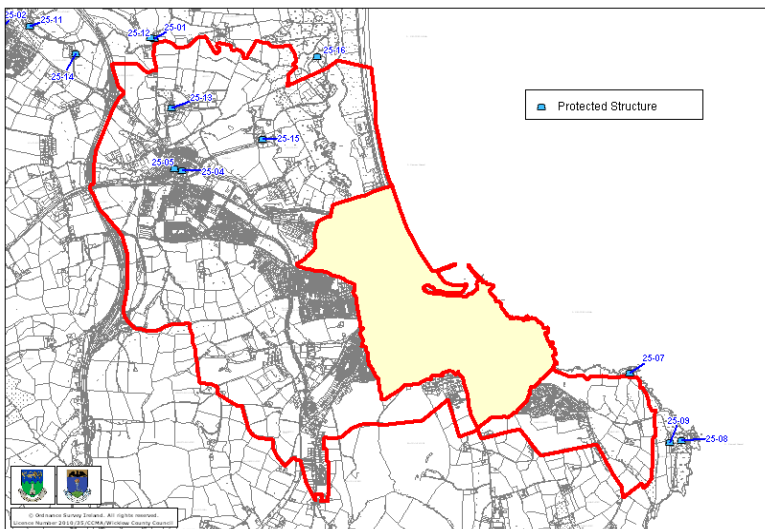
Figure 2.2 Environmental Sensitivities



Coastal and Transitional Water Bodies

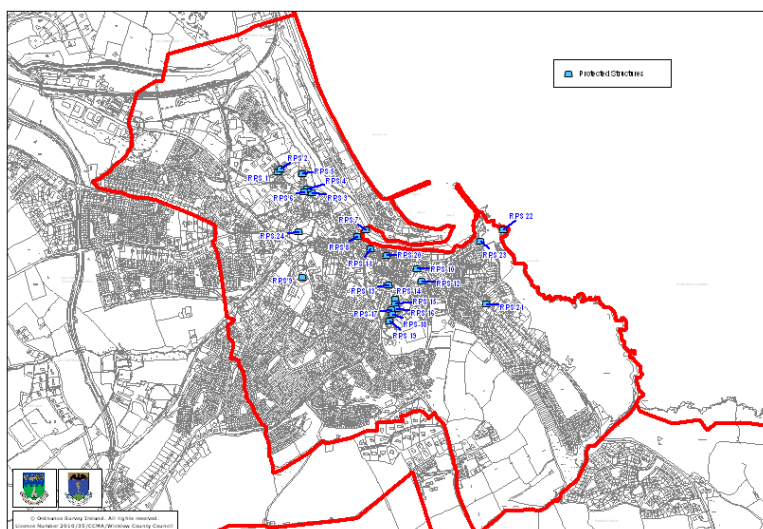


Groundwater Water Body

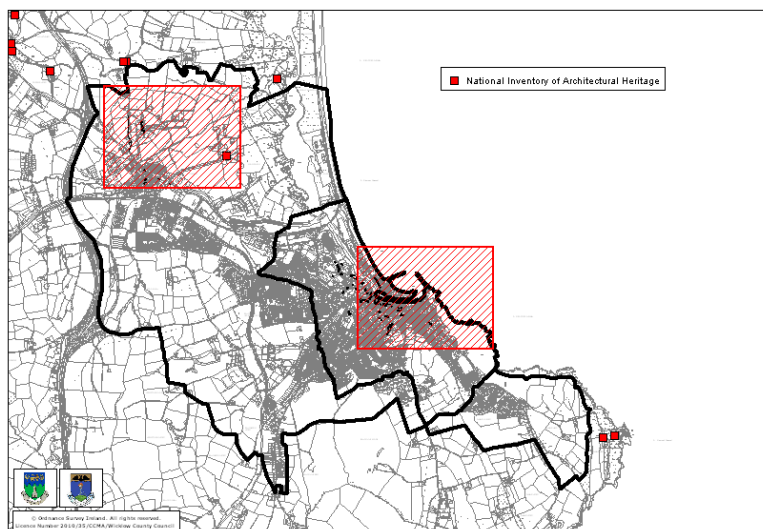


Record of Protected Structures Wicklow County Council Area

Figure 2.3 Environmental Sensitivities



***Record of
Protected
Structures
Wicklow Town
Area***



***National Inventory
of Architectural
Heritage***

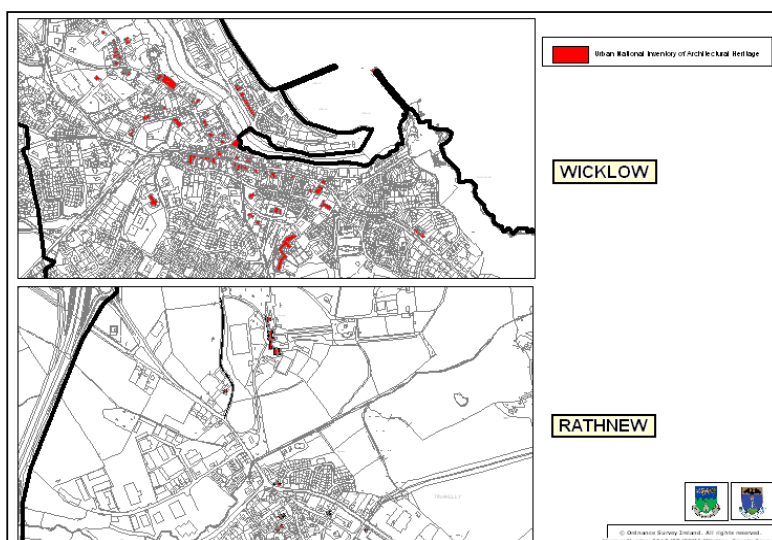
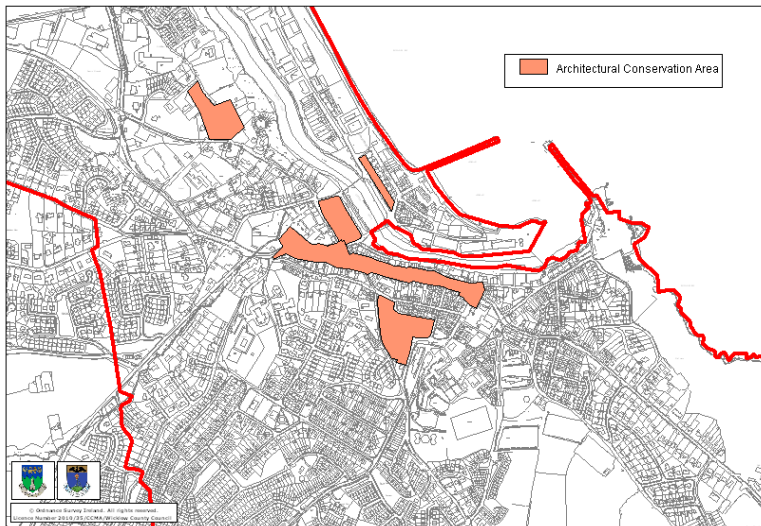
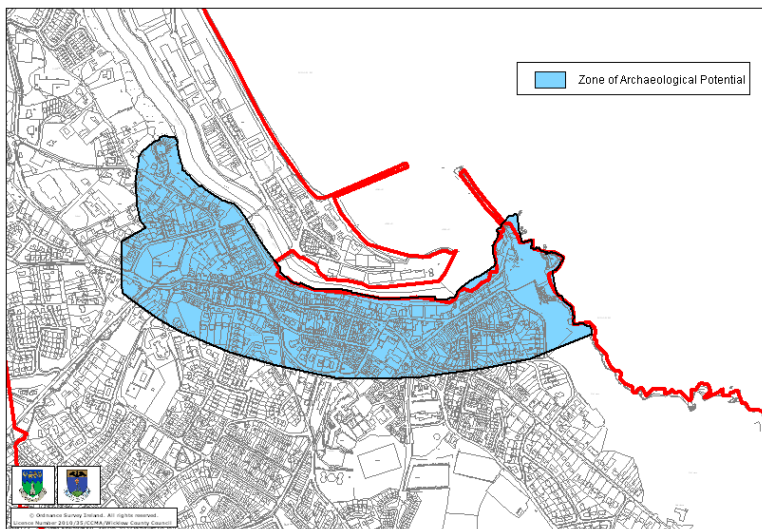


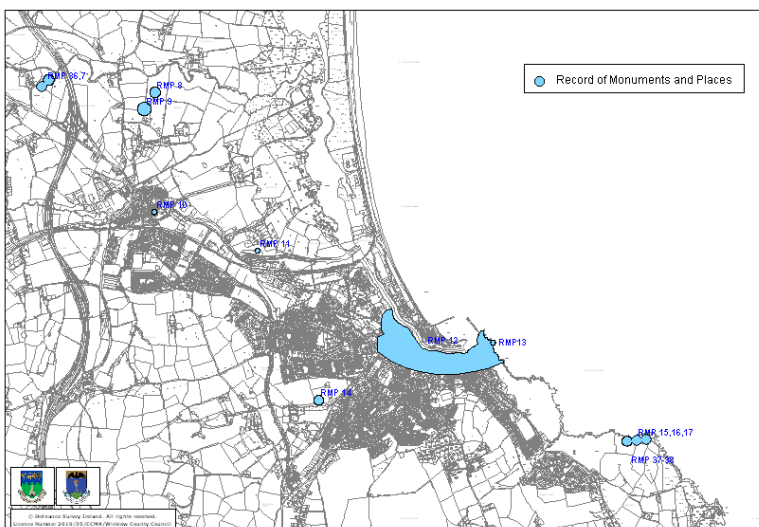
Figure 2.4 Environmental Sensitivities



**Architectural
Conservation
Areas**

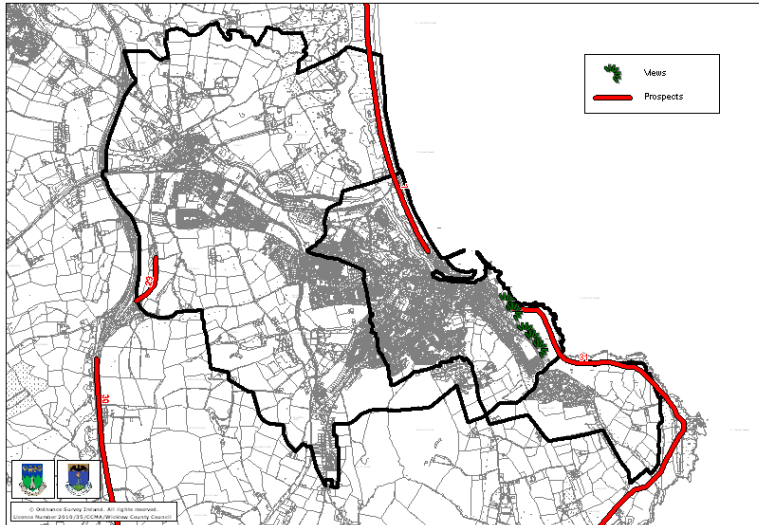


**Zone of
Archaeological
Potential**

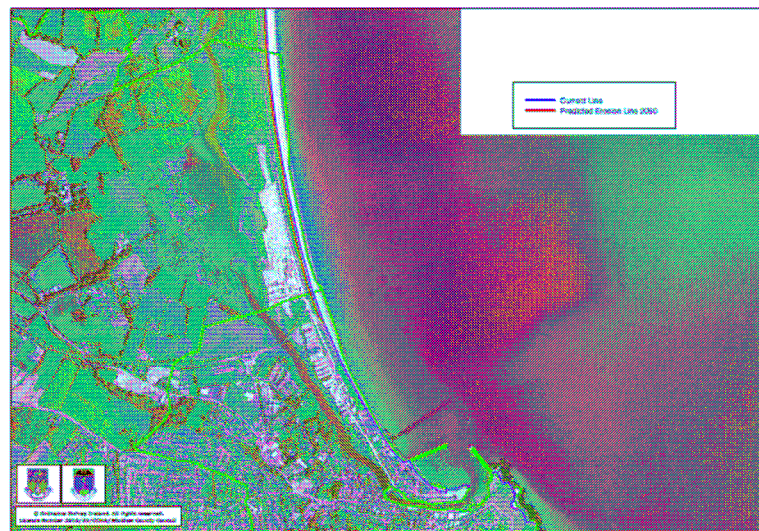


**Record of
Monuments and
Places**

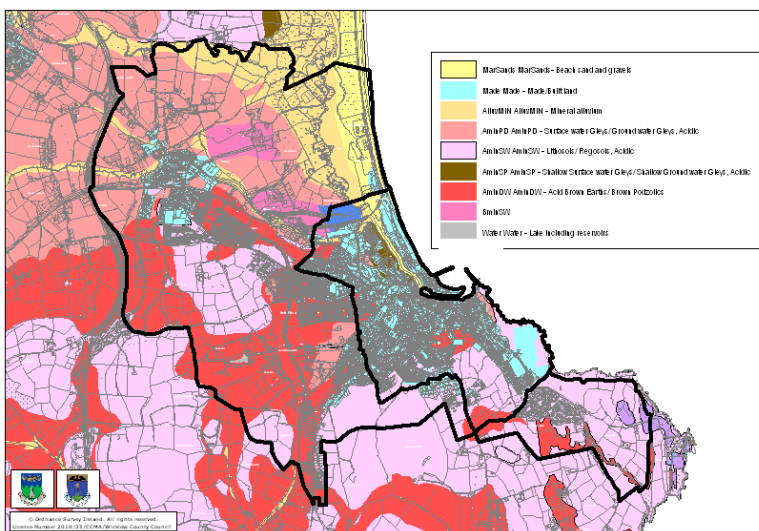
Figure 2.5 Environmental Sensitivities



Views and Prospects



Predicted Coastal Erosion



Soil Types

Figure 2.6 Environmental Sensitivities

2.4 Mitigation

2.4.1 Introduction

In order to comply with various statutory requirements and in order to comply with the requirements of the statutory consultees, mitigation measures were recommended to be integrated into the Plan.

The wide range of topics these mitigation measures cover include:

- Designated Ecological Sites
- Ecological Connectivity
- Human Health
- Brownfield Development
- Status of Surface and Groundwater's
- Flooding
- Water Services (Waste Water and Drinking Water)
- Greenhouse gas emissions and car dependency
- Archaeological Heritage
- Architectural Heritage
- Landscape

Mitigation Measures generally benefit multiple environmental components i.e. an objective providing for the protection of surface water resources could beneficially impact upon the protection of biodiversity, flora and fauna, drinking water resources, human health and provision of appropriate waste water treatment infrastructure.

The mitigation measures are identified in Section 9 of the Environmental Report and this identification is reproduced in Table 2.1 The reference codes identified are those which accompany the relevant measures in both the Plan and Section 8 of the Environmental Report. Table 2.1 provides a brief breakdown of the relevant mitigation measures contained in the Wicklow Town – Rathnew Development Plan 2013 – 2019.

Mitigation Measure Topic	Objectives of the Wicklow Rathnew Development Plan
Population	TC3,NP1,NP2,NP3,LP1,WM1,WM2,WM3,WM4,WM5,WM6,LT1,LT2,LT3
Biodiversity,Flora and Fauna	NU1, NU2, NU3, NU4,NU5,NU6,NU7,NU8,NU8,NU9,EMP11,
Water Resources	W1,W2,W3,W4,W5,W6,W7,W8,W9,WS1,WS2,WS3,WS4,WS5,WS6,Rathnew 12
Material Assets	W2,W3,W4,W5,CW1,CW2,CW3,CW4,CW5,CW6,CW7,PT1,PT2,PT3,PT4,PT5,PT6,PT7,
Flooding	FL1,FL2,FL3,FL4,FL5,FL6,FL7
Cultural Heritage	AH1,AH2,AH3,RPS1,RPS2,RPS3,RPS4,RPS5,RPS6,ACA1,ACA2,VA1,VA2,VA3,AR1,AR2, AR3,TR8
Landscape	VP1,E1,ICT1,OS10
Climate and Air Quality	AE1,AE2,AE3
Soils	SL1,SL2,SL3,SL4

Table 2.1 Wicklow Rathnew Development Plan Specific Mitigation Objectives

Section 3

Environmental Report and Submissions & Observations

3.1 Introduction

This section details how both the Environmental Report and submissions and observations made to the planning authority on the Environmental Report and SEA process have been taken into account during the preparation of the Plan.

3.2 SEA Scoping Submissions

The Environmental Protection Agency (EPA), the Department of the Environment, Community and Local Government (DECLG), the Department of Communications, Energy and Natural Resources (DCENR), the Department of Agriculture, Fisheries and Food (DAFF), the Department of the Arts Heritage and the Gaeltacht (DAHG) were all sent SEA scoping reports indicating that submissions or observations in relation to the scope and level of detail of the information to be included in the environmental report could be made to Wicklow Town Council / Wicklow County Council. A written response was received on the scope from the EPA, the DAHG and Inland Fisheries Ireland (through DCENR).

The following written submissions were received from the Environmental Authorities with specific reference to the SEA process and the production of the Environmental Report. The content of these submissions was taken into account in formulating the environmental report.

A) Inland Fisheries Ireland

The Development Plan area is traversed by the Rathnew and Vartry rivers, in addition to associated channels. Local watercourses are sensitive and development in the area should not have a deleterious effect on aquatic life in the system. Only clean, uncontaminated surface waters should leave the DP area and drain to the river network. The river network supports a number of species listed under the EU Habitats Directive, including Atlantic salmon, Sea Trout, Brown Trout and Sea Lamprey. Importantly, the River Vartry is an EU designated salmonid system.

In determining the likely significant effects of the plan, regard should be paid to the need for sustainable development of inland and marine fisheries (including the conservation of fish, other species and habitats, and the biodiversity of ecosystems). Consideration to be given to impacts on the following: water quality, surface water hydrology, fish spawning and nursery areas, passage of migratory fish, areas of natural heritage and importance including geological heritage sites, biological diversity, ecosystem structure and functioning, sport and commercial fishing and angling, amenity and recreational areas.

The following should be incorporated into plan:

- Sufficient treatment capacity must be available both within the receiving sewerage system locally and downstream at the relevant waste water treatment plant over the full duration of the plan.
- Disturbance of riparian habitats should be minimised. An undisturbed buffer zone between development area and river bank should be maximised (10m minimum). Riparian vegetation should be retained in as natural a state as possible at all times.
- Utmost priority needs to be given to the protection and conservation of salmonid systems. IFI policy is to maintain watercourses in their open natural state. IFI would welcome the designation of lands adjacent to surface waters, particularly salmonid systems as areas of open preservation allowing protection/enhancement of biological diversity while providing open space and recreational amenity for river users – require 10m minimum buffer zone.
- The protection of habitats outside designated areas and a commitment to reject proposals that would interfere with natural floodplains (HL14 in the current CDP). IFI strongly oppose any development on floodplains.

- The implementation of SUDS design, in conjunction with good management of the site, and in flooding and pollution management. Policies and recommendations of the Greater Dublin Strategic Drainage Study (GDSDS) should be applied.

Drinking Water Sources/ River Abstractions:

Abstraction of water supply at Ashford cannot result in a negative impact on the ecology of the River Vartry (a designated salmonid system). Any such abstraction scheme should not compromise the objectives as set out in national Fisheries and Water Framework Directive legislation. In this respect An Bord Pleanála decision PL27.JD0012 is directly relevant. The abstractions at Ashford will reduce the amount of water in the Avoca River, which is required to dilute the polluted water in the AMD (Acid Mine Drainage) affected stretch of the Avoca River. The abstraction of the water will lead to deterioration in the fishery value of the Upper Avoca catchment. These concerns should be taken on board.

B) Department of Arts, Heritage and the Gaeltacht

Architectural Heritage:

Address misprint regarding 'National Inventory of Architectural Heritage'.

Recommend that where the text states 'regard will be paid to the surveys of the NIAH', the additional wording 'and to any recommendations concerning the record of protected structures made by the Minister for Arts, Heritage and the Gaeltacht' should be added. This relates to Section 53 of Planning and Development Act, 2000 as amended.

Nature Conservation

The plan should include a Natural Heritage Section, and should not adversely impact on designated sites or protected species and have regard to biodiversity.

All designated sites within the plan area should be listed and mapped, zoned appropriate and include objectives for protection.

Biodiversity SEOs

Recommend that the biodiversity SEOs in the SEA cover habits and species both within and outside of designated sites as below:

- Natura 2000 sites
- Other designated sites
- Annex I Habitats
- Species listed on Annexes II and IV
- Habitats important for birds
- Birds listed on Annex I of the EC Birds Directive
- Species protected under the Wildlife Acts, including protected flora
- Habitats that can be considered to be corridors or stepping stones for the purpose of Article 10 of Habitats Directive
- Red data book species
- And biodiversity in general.

Take into account the 2020 biodiversity target agreed at the Nagoya CBD CoP in 2010.

Water SEOs

It is important that the needs of protected species such as salmon, lamprey species and freshwater pearl mussels, which are listed on Annex II of the Habitats Directive are considered in relation to water quality.

Water SEOs should be compatible with the relevant River Basin Management Plans.

Flood plains should be left undeveloped to allow for the protection of habitats

Draft Plan is to be screened for appropriate assessment.

C) Environmental Protection Agency

Noted that the Wicklow Regional Public Supply for Drinking Water is currently listed on the EPA's Remedial Action List. Plan should include a policy for the provision of a safe and secure drinking water supply.

Environmental vulnerabilities/sensitivities e.g. water quality and designated conservation sites should be protected.

Attention is brought to the new SEA amendment Regulations, which should be integrated in the plan and SEA process, and to the new consultation arrangements.

An EPA SEA Scoping Submission on the preparation of the new Wicklow Town and Environs Development Plan 2013-2019 was submitted, setting out guidance on the SEA process.

A document, 'Integration of Environmental Considerations in the Land Use Plan' was submitted for the information of the planning authority.

3.3 Environmental Report Submissions and Observations

3.3.1 Addendum I

This Addendum includes a summary of the issues raised in submissions received on the Environmental Report, a response to these issues and amendments to the Environmental Report which are required in light of these issues raised. One submission was received that directly deals with the ER – from the Environmental Protection Agency.

Submission No. 5: Environmental Protection Agency (EPA)

Summary of Issues Raised and Response

General

- The plan provides a strong commitment to protect environmental vulnerabilities and promote sustainable development. The key environmental challenges identified within the SEA have clearly influenced the preparation of the Draft Plan.
- The ER overall is thorough and clearly identifies the significant environmental challenges to be protected in implementing the plan. The cumulative sensitivity map identifies areas that require particular protection in implementing the plan.

Response

Noted

Non-Technical Summary

- The inclusion of the cumulative sensitivity map is noted.
- Section on 'National Policies and Statutory Instruments' should consider inclusion of reference to European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No.477 of 2011).
- Clarification should be given as to which option or combination of options was selected as the chosen alternative, and reasons for choosing this option.

Response

- The Non-Technical Summary of the ER should be amended to include reference to European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No.477 of 2011) – refer Amendment 1 to ER.
- In order to clarify the combination of alternatives that was incorporated in the final draft plan, the Non-Technical Summary of the ER should be amended to include a

- summary of an analysis which demonstrates the characteristics of each of the alternative which are incorporated into the draft plan – refer Amendment 2 to ER.
- Having regard to the fact that this amendment is to the Non-Technical summary, it is considered that a summary of this analysis is sufficient. Further detail is included in the main body of the ER (refer Amendment no. 5 to ER).

Section 3: Relationship of the Draft Wicklow-Rathnew Development Plan 2013-2019 with other Plans and Programmes

Reference should be made to the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No.477 of 2011) which should be taken into account in implementing the plan.

Response

Agree that reference should be made to the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No.477 of 2011) – refer Amendment 3 to ER.

Section 4: Current State of the Environment

- Inclusion of Fig 4.17 Baseline Map of Environmental Sensitivities and description of how map was generated is noted and acknowledged.
- Maps throughout document should have relevant and legible legends.
- Clarify which Fossitt habitat type is being referred to in Section 4.2.5: The County Wicklow Wetland Survey.
- Clarify whether the Draft Plan takes precedence over the existing LAP upon adoption.

Response

- All maps to be reproduced in larger size to enhance legibility – refer Amendment 4 to ER.
- Clarification regarding 'Section 4.2.5 The County Wicklow Wetland Survey': The County Wicklow Wetland Survey 2011 compiled information about known and potential wetland habitats in County Wicklow. The wetland sites in 'Figure 4.5 Wetlands' were identified following a review of literature and third party data sources. Wetland habitats were classified according to the Guide to Habitats published by The Heritage Council (Fossitt 2000). The following Fossitt Wetland Habitats (levels 2 and 3) were identified in the study area: Freshwater F, Watercourses FW, Drainage ditches FW4, Swamps FS, Reed and large sedge swamps FS1, Grassland & Marsh G, Marsh GM, Marsh GM1, Peatlands P, Fens & Flushes PF and Tidal Rivers CW2. The survey also identified 'potential wetlands'. These are sites for which survey information is not currently available but which an analysis of a variety of GIS datasets, including alluvial soil type, indicates that wetland habitats may be present. These are indicated in Map 4.5.
- Until the Wicklow-Rathnew Development Plan 2013-2019 is made, the LAPs have precedence over the Draft Wicklow-Rathnew Development Plan 2013-2019.

Section 6: Environmental Protection Objectives (EPOs)

- The EPOs are detailed and comprehensive.
- Consideration should be given in PHH1 to considering the dezoning or rezoning of inappropriately zoned lands in flood risk areas.

Response

EPO FL1 is to avoid and mitigate river and coastal flood risk. In addition, a Flood Risk Assessment has been undertaken as part of the plan preparation process, in accordance with 'The Planning System and Flood Risk Management: Guidelines for Planning Authorities (DoE/OPW, 2009)'. It is considered that flood risk issues have been successfully integrated into the SEA and plan preparation process and that it is not necessary to include an additional EPO under 'Population and Human Health' to address flood risk.

Section 7: Consideration of Development Plan Alternatives

- Ensure maps of each alternative have relevant and legible keys.
- Noted that the preferred strategy for the Draft Plan reflects the combination of the alternatives. In addition to assessing the impacts of each alternative on the SEOs, consideration should be given to describing which aspects of each of the alternatives have been selected in the determination of the final preferred alternative. This could be provided in tabular format to address the key environmental challenges referred to in section 5.
- The cumulative environmental assessment of the alternatives is noted. The potential for cumulative effects in combination with other plans and programmes within and adjacent to the plan area should be described for each alternative, particularly the preferred alternative.

Response

- All maps to be reproduced in larger size to enhance legibility – refer Amendment 4 to ER.
- Greater clarity is to be provided to describe which characteristics of each of the alternatives have been selected in the determination of the final draft plan – refer to Amendment 5 to ER. It should be noted that the environmental characteristics referred to on the table relate directly to the key environmental challenges set out in Section 5 of the ER.
- Greater clarity is to be provided on determining the cumulative effects of the plan in combination with other plans and programmes – refer Amendment 6 to ER.

Section 8: Assessment of likely environmental effects of the Draft Wicklow-Rathnew Development Plan 2013-2019

Identification of mitigation measures is noted and acknowledged.

Response

Noted

Section 9: Mitigation

Inclusion of mitigation measures is noted and acknowledged.

Consideration should be given to strengthening Water Service objective WS6 as follows: *"To ensure that any development or activity with potential to impact on groundwater has regard to will take account of the GSI Groundwater Protection Scheme."*

Response

It is the Manager's opinion that the objective should be amended as suggested by EPA – refer Manager's Recommended Amendment No.13 of Manager's Report.

Flood Risk Assessment

Certain lands have failed the justification test. Residential zoned and other high vulnerability land uses should be de-zoned/re-zoned to reflect level of flood risk. Clarify inconsistencies relating to RE(B) and TC (A&B) in FRA.

Response

A Flood Risk Assessment, in accordance with 'The Planning System and Flood Risk Management: Guidelines for Planning Authorities (DoE/OPW, 2009), has informed the plan preparation process. Inconsistencies relating to the FRA have been considered in the Manager's Report (refer to submission no.5).

Amendments to Environmental Report

Amendment 1 to ER

Within Section 5 of the 'Non Technical Summary', under 'Key national policies and statutory instruments that have a relationship with the 'Draft Wicklow-Rathnew Development Plan 2013-2019', include:

European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No.477 of 2011)

Amendment 2 to ER

Include the following at the bottom of Section 9 of the Non-Technical Summary:

The final draft plan incorporates a combination of the characteristics of each of the alternatives. The following table includes a summary of the combination of characteristics that have been incorporated into the final draft plan. More detailed information regarding this matter is set out in '7.2: Environmental Assessment of Alternatives' of the Environmental Report.

Table 3: Summary of the combination of characteristics incorporated into final draft plan.

Alternatives					
Environmental Characteristic		Alternative 1: Most Environmentally Friendly Option	Alternative 2: Water Services Determinant	Alternative 3: Roads and Transportation Determinant	Alternative 4: Concentric Development Pattern
	Services growth of healthy population and sustainable settlement form	√	√	√	√
	Maximises efficient use of water services infrastructure		√		
	Maximises efficient use of roads and transportation infrastructure			√	
	Protects water bodies	√			
	Protects the Murrough cSAC and SPA	√			
	Protects Wicklow Head SPA and pNHA	√			
	Addresses flood risk	√			
	Protects biodiversity	√			
	Protects scenic landscapes	√	√	√	√
	Protects built heritage	√	√	√	√
	Addresses climate change and air quality	√		√	√
	Promotes soil quality	√	√	√	√
	Provide recreational infrastructure	√	√	√	√

Amendment 3 to ER

Within Section 3 include the following within Table 3.2: Relationship of the 'Draft Wicklow-Rathnew Development Plan 2013-2019' with key national policies and statutory instruments:

Policy/Statutory Instrument	Summary of Key Objective
European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No.477 of 2011)	For the conservation of biodiversity. These Regulations consolidate the European Communities (Natural Habitats) Regulations 1997 to 2005 and the European Communities (Birds and Natural Habitats)(Control of Recreational Activities) Regulations 2010, as well as addressing transposition failures identified in the CJEU judgments.

Amendment 4 to ER

All maps are reproduced in a larger size to enhance legibility. Reproduced maps are included at the end of this document.

Amendment 5 to ER

Include the following within '7.2: Environmental Assessment of Alternatives'

The following to be inserted after '7.2.1 Evaluation of Alternatives':

Description of characteristics of each alternative that have been incorporated into the final Draft Plan:

		Alternatives			
		Alternative 1: Most Environmentally Friendly Option	Alternative 2: Water Services Determinant	Alternative 3: Roads and Transportation Determinant	Alternative 4: Concentric Development Pattern
		Each of the alternatives provide sufficient land for the future growth of the settlement and removes surplus land which is not required within the plan period. Each alternative, in general terms, contributes to the creation of a healthy and high quality environment. Similarly, the final draft plan, complies in this respect.			
Environmental Characteristic	Services growth of healthy population and sustainable settlement form				
	Maximises efficient use of water services infrastructure		Alternative 2 reflects a settlement form that maximises the most efficient use of water resources. The characteristics of this alternative have been incorporated into the final draft plan. Development lands are served by the Wicklow Water Supply Scheme. Lands not served by the scheme have been de-zoned and held in a Strategic Land Bank.		

	Maximises efficient use of roads and transportation infrastructure			Alternative 3 reflects a settlement form that maximizes the most efficient use of roads and transportation infrastructure. The key characteristics of this alternative have been incorporated into the final plan, most notably, (i) peripheral lands that necessitate the development of new roads are rezoned and held in Strategic Land Bank, (ii) removal of objective to provide Transportation Interchange at AA10, (iii) sustainable land use and transportation pattern whereby people based employment uses are located along public transport routes and product based employment activities are located along key roads – the Town Relief Road and Port Access Road.	
	Protects water bodies	Alternative 1 reflects a settlement form that affords the best protection of water bodies. The key characteristics of this alternative that have been incorporated into the final draft plan include: (i) extensive open space buffer along Vartry River, (ii) land along Rathnew, Burkeen and Marlton river systems rezoned open space where possible, (iii) development lands are served by Wicklow Sewerage Scheme thereby reducing need for septic tanks – safeguards Wicklow East Groundwater Body.			

Protects the Murrough cSAC and SPA	Alternative 1 reflects a settlement form that affords best protection to the Murrough Natura 2000 sites. The key characteristics of this alternative that have been incorporated into the final draft plan include: (i) the Natura 2000 sites are zoned Conservation Zone, (ii) land adjoining the Natura 2000 sites zoned open space where possible, (iii) Conservation Zone buffer extends beyond boundary of designated sites onto adjoining lands to provide buffer.			
Protects Wicklow Head SPA and pNHA	Alternative 1 reflects a settlement form that affords best protection to Wicklow Head Natura 2000 site. The key characteristics of this alternative that have been incorporated in the final draft plan include: (i) the designated sites are zoned Conservation Zone, (ii) substantial lands adjoining the designated site zoned open space to provide buffer.			
Addresses flood risk	Alternative 1 reflects a settlement form that best addresses flood risk. The key characteristics of this alternative that have been incorporated into the final draft plan include: FRA informed plan preparation in accordance with Flood Management Guidelines so that (i) undeveloped sections of flood risk lands rezoned open space where possible, (ii) addressing flood risk at Clermont and Newrath through flooding objective in Chapter 12, 12.1			
Protects biodiversity	Alternative 1 reflects a settlement form that affords best protection to biodiversity. Key characteristics of this alternative that have been incorporated into the final draft plan include: (i) introduction of objectives within Section 11.3 to protect designated and non-designated biodiversity, (ii) Objective OS10 to safeguard biodiversity of the Convent lands site.			
Protects scenic landscapes	Each alternative, to varying degrees, reflects a settlement form that affords protection of scenic landscapes. The Most Environmentally Friendly option includes proposals that afford the best protection of scenic landscapes. Key characteristics of the alternatives that have been incorporated into the final draft plan include: (i) landscapes of Murrough and Wicklow Head protected by virtue of strong environmental objectives in this area, (ii) dezoning of highly visible lands to south and southwest and removal of peripheral roads objectives protect 'green' backdrop of settlement, (iii) OS10 safeguards the scenic quality of the Convent lands.			

Protects built heritage	While none of the alternatives make specific recommendations relating to built heritage, each alternative aimed to protect the architectural and archaeological heritage of the area. Although not a specific characteristic of any alternative, the final draft plan introduced the following objectives for the protection of built heritage: (i) introduction of objectives within Section11.3 to protect built heritage, (ii) the introduction of 4 additional ACAs and the proposed addition of a 9 of structures to the RPS.		
Addresses climate change and air quality	Alternative 1 contributes to the reduction of the greenhouse gases and improvement in air quality. The following key characteristics of this alternative have been incorporated into the final draft plan: proposals to maintain and enhance biodiversity – trees and plants have a neutralizing effect on CO2 levels.		Alternative 3 and 4 contribute to the reduction of greenhouse gases and improvement of air quality. The following key characteristics of this alternative have been incorporated into the final draft plan: promotion of a compact urban form reduces the need for vehicular travel, thereby resulting in reduction in harmful emissions.
Promotes soil quality	Alternative 1 contributes to maintaining the quality of soils in the area. Key characteristics of this alternative that have been incorporated into the final draft plan include: objectives for the protection of biodiversity promotes biological activity for the creation of healthy soils.	Each of these alternatives contribute to maintaining the quality of soils in the area. Key characteristics of these alternatives that have been incorporated into the final draft plan include: promotion of a compact urban form which reduces urban sprawl and the spread of development onto undeveloped lands, thereby preventing compaction and runoff that can be detrimental to soil quality.	
Provide recreational infrastructure	While none of the alternatives make specific recommendations relating to recreational infrastructure, each alternative would provide for the recreational needs of the settlement. Although not a specific characteristic of any alternative, the final draft plan introduces objectives to ensure that social and recreational infrastructure is provided for the future needs of the settlement.		

Amendment 6 to ER

Include the following within 'Section 7.2 Environmental Assessment of Alternatives':

The following section to be inserted after '7.2.2 Cumulative Environmental Assessment of Alternatives':

7.2.3 Cumulative Effects in Combination with other Plans and Programmes

As required by the legislation and guidance documents on the preparation of Environmental Reports, each alternative is required to be reasonable, and to be in accordance with the overall development strategy for the area. Accordingly, each of the alternatives and the final draft plan have been prepared having due regard to the hierarchy of International, European, national, regional and local planning policies and statutory instruments, within which these are framed.

The cumulative effect of each of the alternatives and the final draft plan, in combination with International, European, national, regional and local planning policies and statutory instruments, has been considered. It is considered that the overall environmental impact arising through the interaction of plans and programmes with the characteristics of each alternative and the objectives of the draft plan is positive and neutral.

3.3.2 Addendum II

Addendum II to the Environmental Report of the Draft Wicklow-Rathnew Development Plan 2013-2019' assessed the likely significant effects on the environment of implementing the proposed amendments to the Draft Plan as agreed by the members of Wicklow Town Council and Wicklow County Council. This assessment was placed on public display alongside the Proposed Amendments. The following details the submissions received on these amendments that specifically related to the Environmental Report (ER).

Submission 4 – Environmental Protection Agency

General

- EPA acknowledges notice of 29th April 2013 and notes contents.
- Position with regard to the need for SEA of Proposed Material Amendment is noted.
- SEA Statement to be prepared in accordance with SEA Regulations

Specific Comments on Proposed Material Alterations

Amendment No. 33

In relation to the proposed rezoning of lands at Ballynerrin from Public Open Space to Employment (E-2 Warehousing) with local objective PF2, there would be merits in including a specific commitment to the provision of compensatory public open space at an appropriate location(s) to offset the loss of open space associated with the proposed amendment.

Manager's Opinion

As per Section 12(10) of the Planning and Development Act 2000 (as amended), a further modification to the alteration (i) may be made where it is minor in nature and therefore not likely to have significant effects on the environment or adversely affect the integrity of a European site, (ii) shall not be made where it relates to an increase in the area of land zoned for any purpose, or an addition to or deletion from the RPS.

While the issue raised by the EPA is noted, the planning authority is restricted by Section 12(10) of the Act and as such is unable to make any modification relating to the rezoning of land for compensatory public space.

Manager's Recommendation

No change to proposed amendment

Amendment No.11

Acknowledged that consideration is being given to preparation of a Port and Environs Masterplan for Wicklow port. Consideration should be given to taking into account the approach undertaken for existing port related master plans and integration of SEA, Habitats, Floods and Water Framework Directives. Additionally, National Ports Policy should be taken into account.

Manager's Opinion

As per the proposed amendment, the masterplan is to be prepared by Wicklow Port Company in conjunction with the planning authority and shall adhere to the objectives of the development plan. The normal statutory requirements regarding compliance with the SEA,

Habitats, Floods and Water Framework Directives shall apply to the preparation of the masterplan, as appropriate.

Manager's Recommendation

No change, adopt the proposed amendment

Amendment No.12

Consideration should be given to amendment the proposed additional text to include a commitment that development be carried out “..in a sustainable manner”, to strengthen the adoption of a sustainable development approach.

Manager's Opinion

All strategies and objectives of the plan are underpinned by strategic overarching objectives pertaining to a commitment that development is carried out in a 'sustainable manner'. Taking account of this, it is considered that it is not necessary to include the recommended additional text. It is considered that the issues raised by the EPA are adequately dealt with in the proposed development plan.

Manager's Recommendation

No change to proposed amendment

Amendment No.13

In relation to seeking the development outside the immediate town centre where no suitable lands are available in the town centre, the requirement of the Floods/Habitats, EIA and Water Framework Directive should be taken into consideration. Traffic impact assessment should also be taken into account.

Manager's Opinion

Any development proposal shall be considered, having regard to the objectives of the development plan and other statutory requirements, as appropriate. The development plan includes mitigation objectives to ensure compliance with the relevant EU Directives, e.g. application of Floods Directive - FL1-FL7 Chp10; application of Habitats Directive - NU2 Chp11; application of Water Framework Directive – Chp 11 WS1-WS6. Objectives relating to the requirement to submit Traffic Impact Assessments are included in Chapter 9 of the development plan. It is considered that the issues raised by the EPA are adequately dealt with in the proposed development plan.

Manager's Recommendation

No change to proposed amendment.

Amendment No.17

Consideration should be given to ensuring that any potential disturbance to protected species/habitats including designated conservation sites is taken into account and that consultation with NPWS is carried out in the siting of any future proposed cycle routes etc. associated with this Cycle Network Hub.

Manager's Opinion

This proposed amendment would be subject to adherence with other policies and objectives in the development plan, including NU2 of Chapter 11 which ensures that no development will

be permitted that adversely affects the integrity of Natura 2000 sites. It is considered that the issues raised by the EPA are adequately dealt with in the proposed development plan.

Manager's Recommendation

No change to proposed amendment.

Amendment No.25

Re: Intention to consider the provision of further ROW within the plan area - Consideration should be given to ensuring that access be only considered at appropriate locations and in consultation with NPWS. Consideration should be given to fully taking into account the requirements of the Habitats Directive in particular.

Manager's Opinion

This proposed amendment would be subject to adherence with other policies and objectives in the development plan, including NU2 of Chapter 11 which ensures that no development will be permitted that adversely affects the integrity of Natura 2000 sites. It is considered that the issues raised by the EPA are adequately dealt with in the proposed development plan.

Manager's Recommendation

No change to proposed amendment.

Amendment No. 26

Clarify if existing service infrastructure is sufficient to meet the proposed development of 100 houses before completion of Marlton Estate Road and Town Relief Road. Consideration to be given to undertake traffic impact assessment.

Manager's Opinion

The draft plan already provides (in Section 9.7) that a Transport Assessment would be required when traffic to and from a new development would exceed 10% of the traffic flow on the adjoining road. There are currently approximately 250 houses serviced by this road and the development of 100 additional houses would therefore automatically necessitate a traffic assessment.

Manager's Recommendation

No change to proposed amendment.

Amendment No. 30

Re: reduction in amount of passive open space at Tinakelly. Consideration should be given to keeping the existing land use extent for passive open space in place to act as a key ecological corridor/linkage within the plan area. This would clearly incorporate green infrastructure aspects into the amended plan. Given that the amount of land proposed for rezoning doesn't appear to greatly increase the amount of lands available for other development uses, it may be more appropriate to preserve the extent of the existing open space zoning.

Manager's Opinion

The issues raised by the EPA are noted. This proposed amendment relates to the rezoning of a relatively narrow strip of land from Passive Open Space to Residential use. This passive open space strip specifically relates to the extent of flood risk lands as identified under the FRA. Likewise, the amendment reflects a revision to the flood risk assessment study. It is considered that the amendment is appropriate and reasonable having regard to the context within which it is proposed. In addition, it should be noted that the revised passive open space strip can still enable the formation of an ecological corridor along this river system.

Manager's Recommendation

No change to proposed amendment.

3.3.3 Further Modifications

No further modifications were recommended to the proposed amendments in the Manager's report therefore no environmental assessment addendum was required.

Section 4

Alternative Plan Scenarios Considered

4.1 Introduction

This section describes the alternative scenarios considered for the Draft Development Plan, summarises the evaluation for likely significant environmental effects of each scenario which is provided in the Environmental Report and identifies the reasons for choosing the Plan, as adopted, in the light of the other reasonable alternatives dealt with.

4.2 Description of the Alternative Scenarios

The environmental consequences of 4 alternative scenarios for the Development Plan were examined. All scenarios were required to meet the obligations set for the plan area by the Planning and Development Act, The National Spatial Strategy, the Regional Planning Guidelines for the Greater Dublin Area 2011-2016 and the County Development Plan 2010-2016 and any other higher order development strategies.

4.2.1 Alternative 1 - Most Environmentally Friendly Option

This alternative sets out a development strategy that aims to achieve a high level of protection to the environment. This alternative is illustrated in Figure 4.1 and key components of it are described below:

- In order to provide a high degree of protection to Natura 2000 sites, the Area of Conservation (AC) zone has been removed and a new zone, the Natura 2000 zone, is introduced to reflect lands that are designated cSAC or SPA. The objective of this zone is to preserve and improve the integrity of the Natura 2000 site and to prohibit development that adversely affects the integrity of the Natura 2000 site, in light of the site's conservation objectives. Lands designated pNHAs are included in a new pNHA zone, with an objective to preserve and improve the integrity of pNHAs.
- In order to aid the protection of Natura 2000 sites and to avoid encroachment, open space buffer zones have been introduced on lands adjoining the Natura 2000 sites, including Tinakilly hotel area to west, employment/Murrough area to east and the rezoning of Active Open Space to Open Space at Wicklow Head.
- To ensure that recreational use is directed away from sensitive areas, the walking route extending from Tinakilly House is removed from the Natura 2000 site.
- A green belt has been introduced on lands at the edges of the plan area. These green belt areas reflect land of high gradients which is highly visible, land of key importance in the protection of listed prospects, lands with rivers and flood prone areas and lands that act as a buffer to Natura 2000 sites.
- In order to protect riparian habitats, a 10m buffer has been introduced along all rivers, where possible. A 15m buffer was introduced for Vartry River which is a river of salmonid importance. These buffers are introduced in a new zone 'River Buffer'.
- In order to protect the biodiversity of non-designated sites, a new zone 'urban habitat' is introduced on all lands covered by the Wicklow Urban Habitat Mapping Study 2008.
- In order to protect against flood risk, an indicative flood risk area⁴ is indicated, and the zonings of these lands has been changed to open space, where possible.
- In order to protect urban biodiversity and to preserve public open space areas, public open space in housing estates has been zoned 'open space'.

⁴ The indicate flood risk area identified in this alternative represents a cursory assessment of lands that may be of flood risk. The assessment represents lands that have an alluvial soil type and which are identified as being of flood risk under the Wicklow Town River Analysis. A detailed assessment of flood risk is included in the Flood Risk Assessment, which has been undertaken at a time post dating the assessment of this alternative.

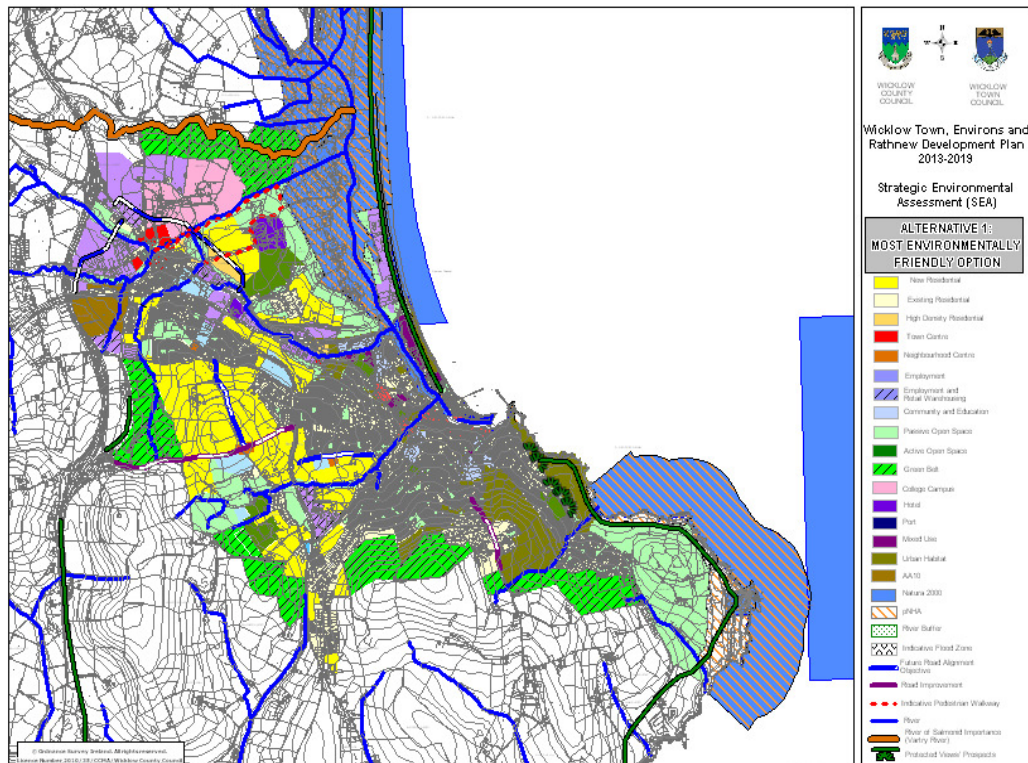


Figure 4.1 – Alternative 1 – Most Environmentally Friendly

4.2.2 Alternative 2 - Water Services Determinant

In this alternative, land that cannot be served by water services infrastructure is removed from the development strategy and is de-zoned. This alternative is illustrated in Figure 7.2 and its key components are described below:

- On lands north west of Marlton Road, water can only be supplied up to a maximum height of 80m. Zoned lands above this contour are removed.
- On lands south east of Marlton Road, water can only be supplied up to a maximum height of 103m. Zoned land above this contour is removed, excluding existing developed areas and those lands in proximity to the Mariner's Point reservoir (considered below).
- On lands in the immediate vicinity of Greenhills Road, water can only be supplied up to a maximum height of 130m. At the Mariners Point Estate, there is a small part of existing residential zoned land that is at a height over 130m. As these lands are located in direct proximity to Mariners Point Reservoir (located at c.150m), these lands can be supplied with water and the existing zoning has been retained.
- In order to ensure that the amount of land zoned for employment use does not exceed 125ha of land, the Employment and College Campus zonings at AA11 have been omitted and replaced with Open Space. The Mixed Use zoning at AA10 has been omitted and replaced with a Residential zoning and the Employment and Retail Warehousing zoning at Broomhall has been omitted.

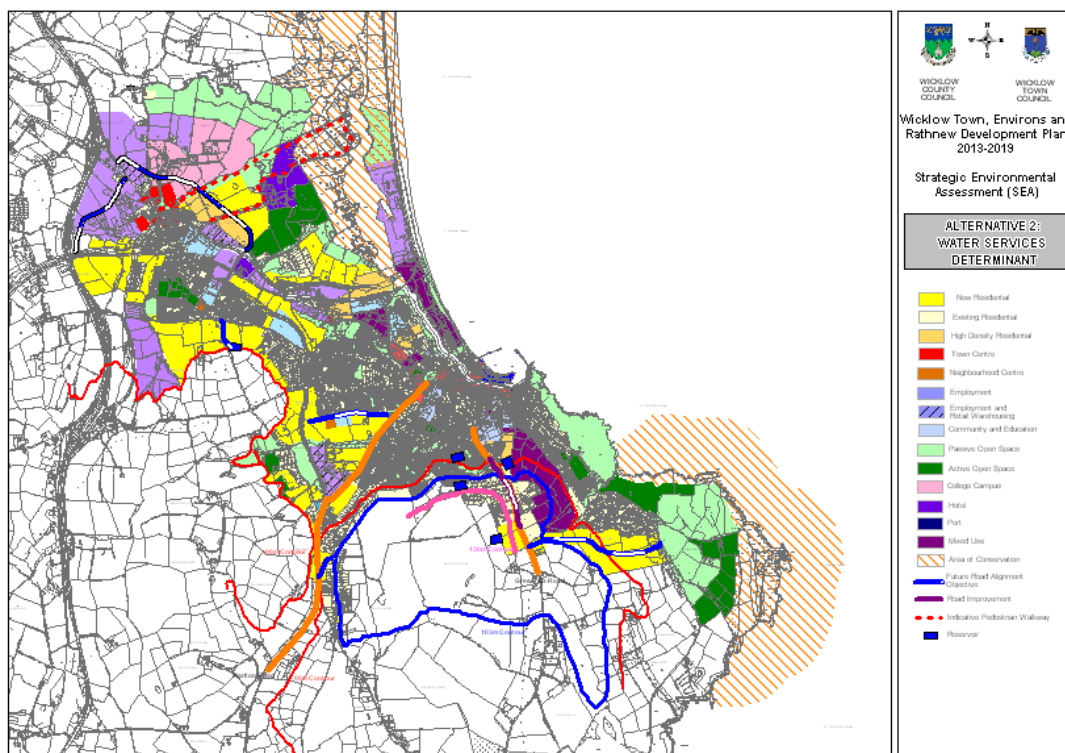


Figure 4.2 – Alternative 2 – Water Services Determinant

4.2.3 Alternative 3 - Roads and Transportation Determinant

This alternative has been devised with the following key objectives in mind:

- Achieving the maximum use of land that has access to the Town Relief/ Port Access Routes and the main route from the M/N11 into town via Rathnew.
- Achievement of the employment strategy as set out in Wicklow County Development Plan, which states that the settlement should target both product and people intensive industries. In summary,
 - product based industries are best located at sites with easy access to the main transportation routes – as such, land with best access to M11 is zoned Employment; and
 - people based industries are best located on lands with easy access to the main public transport corridors – as such, land with best access to the main public transport route is designated for housing/College Campus/ TC/ high density use.

This alternative is illustrated in Figure 7.3 and its key components are described below:

- The current Wicklow Environs and Rathnew LAP 2008-2014 includes an objective for the development of developer funded roads through Action Area 7 and Action Area 8. As the cost of providing these roads is likely to outweigh the benefit yielded from the construction of houses, it is unlikely that this objective can be realistically achieved. As such, this alternative includes the omission of this objective and the omission of land zonings that are dependent on these roads. As it remains an aspirational objective of the Council to provide an east west link between the Coast Road and the Marilton Road, a long term roads objective for the provision of links in this area is included (to reflect that it is not likely to be developed within the lifetime of this plan).
- The current Wicklow Environs and Rathnew LAP 2008-2014 includes an objective for the development of a new road in Action Area 4. The infrastructural difficulties involved in constructing a road over the hill at Ballynerrin Upper is likely to constrain the achievement of this objective. As such, this alternative removes the objective for a

road through AA4 and consequently removes land zonings dependent on this road objective.

- The current Wicklow Environs and Rathnew LAP 2008-2014 includes an objective for the development of public transportation hub at Rathnew. It is no longer an objective to provide this transportation hub. This alternative omits the objective for the transportation hub and replaces the accompanying high density mixed use zoning that with an Employment use zone.
- In order to promote appropriate land uses on lands with most direct access to the key public transport corridor in the area, Employment zoned lands are rezoned to Residential use at appropriate sites at Newrath, Milltown and Merrymeeting. An Open Space buffer between the N/M11 and the new residential zoned area is introduced to safeguard residential amenity.
- The objective for the development of a new road along Ashtown Lane (Action Area 5) has been removed, as a roads objective is not considered necessary having regard to the fact that roads in AA5 are likely to be secondary estate type roads that provide direct access to houses. Similarly, the roads objective for a future road within E zoned land west of Rathnew has been removed as roads within this area are likely to be secondary estate type roads.
- Part of the roads objective for road improvement along Rocky Road has been removed to reflect removal of zoned land in this area.

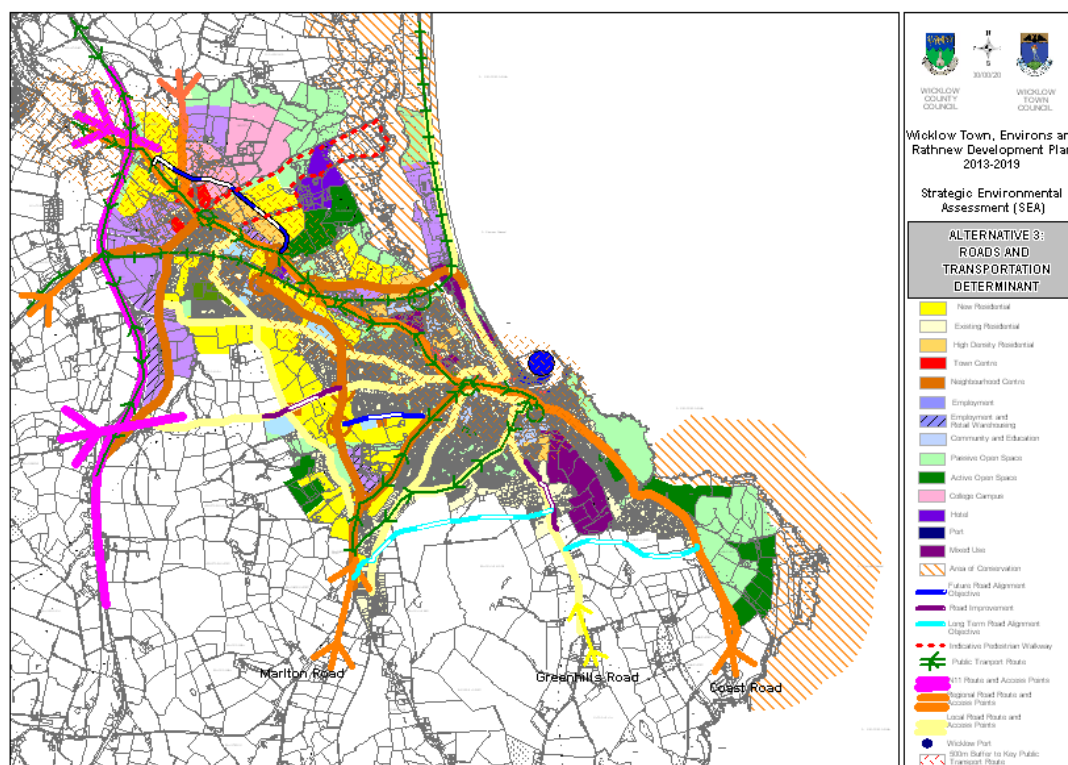


Figure 4.3 – Alternative 3 – Roads and Transportation Determinant

4.2.4 Alternative 4: Concentric Development Pattern

This alternative sets out a development strategy that aims to achieve a concentric and compact settlement form. This alternative is illustrated in Figure 4.4 and its key components are described below.

The concentric model is based on an urban form whereby urban expansion is determined by a model whereby the spatial strategy of the settlement extends in a radial pattern outwardly from the centre. A key component of the overall strategy relates to promoting Wicklow and

Rathnew as separate urban entities within an overall symbiotic settlement structure. As such, the concentric pattern is based on two centres, Wicklow being the primary centre and Rathnew the secondary centre. Under this model, the outward limit for the spatial structure of Wicklow and Rathnew is 1.5km and 0.75km respectively. The spatial element of each settlement is linked by a transportation corridor, within which the main transportation spine for the settlement is located.

Under this alternative, lands within the concentric spatial structure and within the transportation corridor have been retained for the accommodation of future growth and development. Lands at the outer edges of the boundaries of the structure are considered to be less suitable for development and the zonings have been removed. This alternative consolidates the land use pattern of the settlement, resulting in a more compact form which encourages the efficient use of land, the development of mixed use and walkable neighbourhoods and a reduction in the need for additional infrastructure.

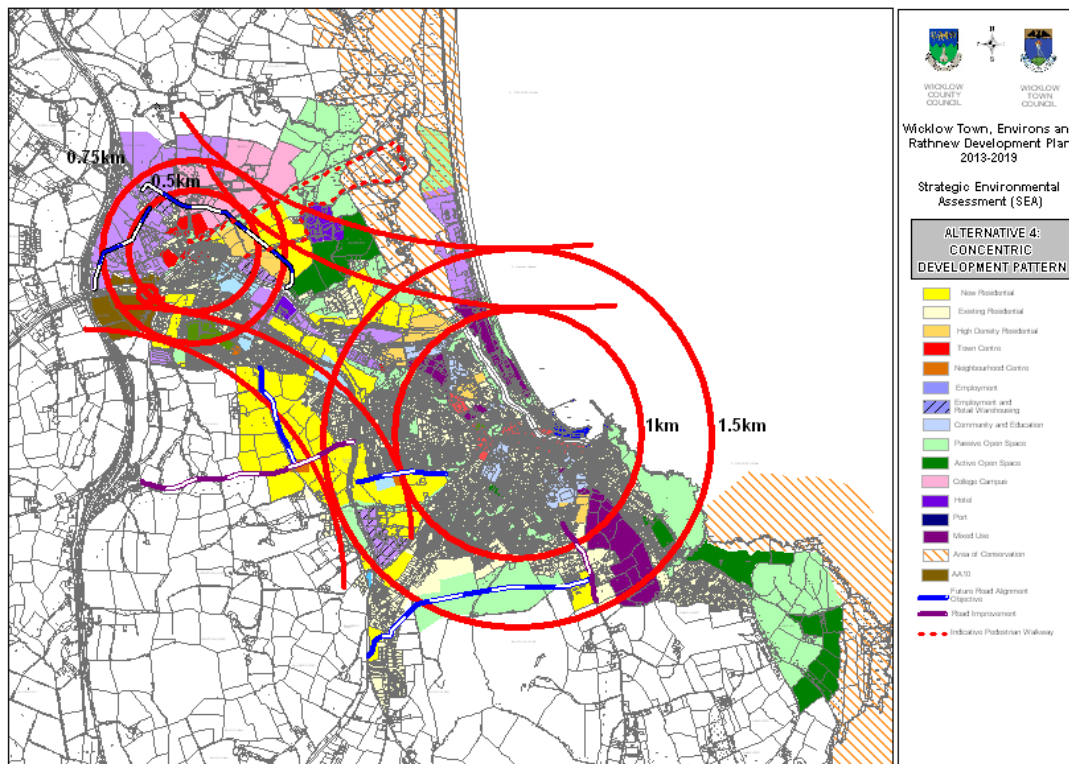


Figure 4.4 –Scenario 4 –Concentric and Compact Alternative

4.3 Evaluation of Alternative Plan Options

4.3.1 Methodology

4.3.1.1 Existing Environment and Overlay Mapping

In order to identify the extent to which environmental sensitivities are likely to be impacted upon by implementation of the 4 scenarios, use was made of environmental baseline data and overlay mapping (see Figures 2.1 to 2.6 of this report).

4.3.1.2 Environmental Protection Objectives (EPO's)

Based on an understanding of the existing and emerging environmental conditions in the Wicklow - Rathnew Development plan area a series of Environmental Protection Objectives (SEOs) were identified and developed in order to assess the likely environmental effects

which would be caused by implementation of each of the 4 alternative scenarios described above.

The alternatives are evaluated using compatibility criteria (table 4.1) in order to determine how they are likely to affect the status of these SEOs.

Table 4.2 brings together all the SEOs, which have been developed from international, national and regional policies, which generally govern environmental protection objectives.

The SEOs and the alternative scenarios are arrayed against each other to identify which interactions - if any - would cause impacts on specific components of the environment. Where the appraisal identifies a likely conflict with the status of an SEO the relevant SEO code is examined.

The alternatives have been evaluated at a strategic level, through an assessment that measures the compatibility of each alternative with the environmental goals. The findings of this assessment are summarised in Table 4.1 and is described as follows:

Table 4.1 Compatibility of Alternatives with SEA Environmental Goals

Alternative	SEA Environmental Goals									
	Population and Human Health	Biodiversity, Flora and Fauna	Water Resources	Material Assets	Flooding	Cultural Heritage	Landscape	Climate	Air Quality	Soils
1. Most Environmentally Friendly										
2. Water Services Determinant										
3. Roads and Transportation Determinant										
4. Concentric Development Pattern										

	Alternative is consistent with environmental goal
	Alternative is highly consistent with environmental goal
	Alternative is in conflict with environmental goal
	Neutral/ Uncertain

Table 4.2 Environmental Protection Objectives

PHH1	Plan for projected population up to 2019/2022
PHH2	Promote a high quality living environment
PHH3	Create a healthy environment
PHH4	Access to amenity and recreational space
BIO1	Conserve the diversity of protected habitats and species on designated sites.
BIO2	Conserve the diversity of habitats and species in non-designated sites
BIO3	Protect rover habitats
WAT1	Improve water quality of surface waters to status objectives as set out in the Water Framework Directive
WAT2	Protect Vartry River of salmonid importance
WAT3	Prevent pollution of groundwater
MAT1	Make best use of existing water services infrastructure
MAT2	Make the best use of existing road and transportation infrastructure
FL1	Avoid and mitigate river and coastal flood risk
CUI1	Protect and enhance architectural heritage, including structures on RPS and structures in Architectural Conservation Area
CUL2	Protect and enhance archaeological heritage including features identified on Record of Places and Monuments and Zone of Archaeological Potential
LAN1	Protection of listed views and prospects
LAN2	Protect visual amenity of scenic and highly visible landscapes, including the Murrough, Wicklow Head, Ballyguile, and upper slopes of Convent lands.
CLIM1	Minimise greenhouse gas emissions to meet National and International standards
CLIM2	Achieve environmentally friendly building designs.
AIR1	Protect good air quality status and minimise the output of Nitrogen Oxides (NOx) and Particulate matter (PM10)
SOIL1	Maximise the sustainable re-use of brownfield sites and maximise the use of the existing built environment

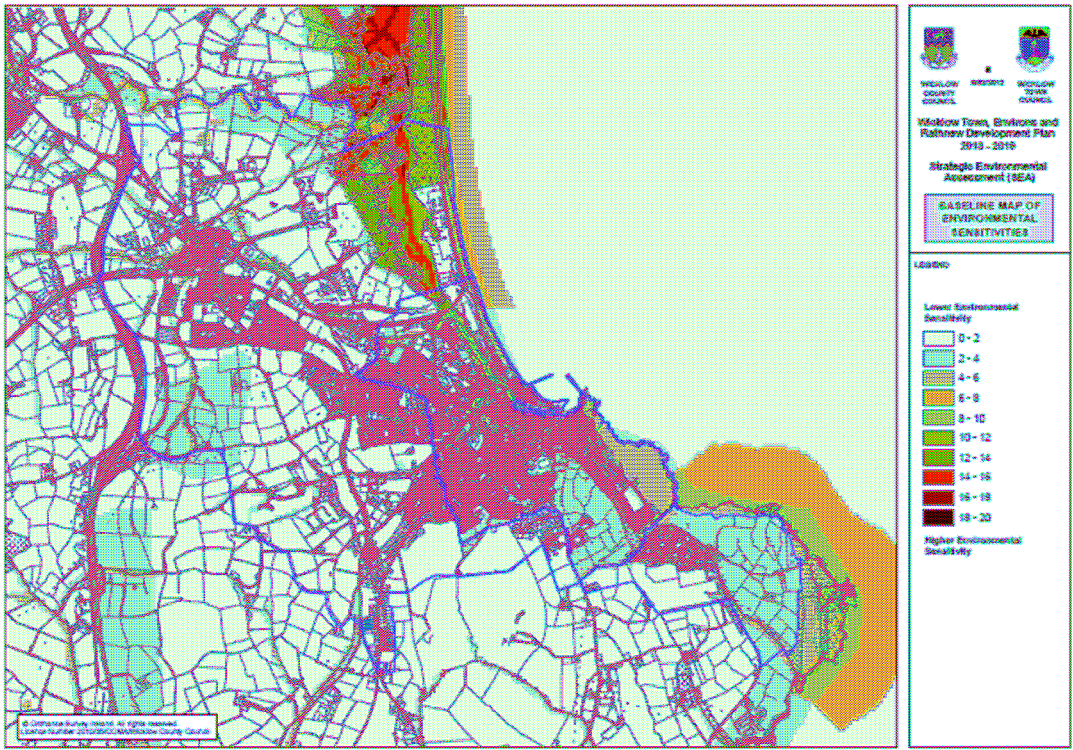


Figure 4.5 – Baseline Map of Environmental Sensitivities

4.4 Evaluation of Plan Alternatives

From a strategic environmental perspective, Alternative 1 – the ‘Most Environmentally Friendly’ option, is considered to be most beneficial to the protection of the environmental integrity of the plan area, and as such, in theory, should form the ‘preferred strategy’ for the preparation of the Draft Plan. This alternative is consistent and highly consistent with a large number of goals. However, the dispersed nature of this settlement pattern renders the goal to maximise the efficient use of existing infrastructure, unachievable. Considering the particular significance of this goal for the plan area, this is a major shortfall of this alternative. In addition, the dispersed nature of this settlement form allows for increased journey lengths and is likely to contribute to an increased amount of greenhouse gas emissions.

As demonstrated by the examination of the theoretically ‘preferred strategy’, it is clear that there are associated costs and benefits with following any one of these alternatives. As such, the ‘preferred strategy’ for the Draft Plan is likely to reflect a combination of different parts of the alternatives, rather than strict adherence to one.

4.5 The Preferred Alternative

Given the above evaluation the preparation of a Draft Plan for Wicklow Town, Wicklow Environs and Rathnew provided for the most beneficial effect on the environment by incorporating the best aspects of the four alternatives. In order to achieve the environmental goals, the Draft Plan chosen incorporates the following combination of the various alternatives:

Population and Human Health

It was determined that each alternative, in general terms would contribute to the creation of a healthy and high quality environment.

Biodiversity, Flora and Fauna

Although each alternative would result in the maintenance and enhancement of biodiversity, the ‘Most Environmentally Friendly’ alternative has been prepared with strict adherence to environmental goals and as such results in the highest degree of environmental protection.

Water Resources

The ‘Most Environmentally Friendly’ alternative is the only alternative to introduce significant measures for the achievement of a ‘good’ quality status in water bodies in accordance with the Eastern River Basin Management Plan 2009-2015. These measures include the introduction of a new River Buffer zone and the introduction of wider open space areas along the river systems. Where possible, these measures should be carried forward to the Draft Plan.

Material Assets

A key goal of this Draft Plan is to maximise the use of existing infrastructure, particularly water and transportation infrastructure. Alternatives 2 and 3 have been prepared in accordance with this goal. The Plan was prepared in accordance with the elements of these alternatives.

Flooding

The ‘Most Environmentally Friendly’ alternative is the only alternative that has been prepared taking account of the Planning System and Flood Risk Guidelines 2009. Where possible, this alternative has designated land at likely flood risk for open space purposes. Where possible, the Plan was prepared in accordance with the elements of this alternative which aim to reduce and mitigate flood risk.

Cultural Heritage

There is no significant difference between alternatives in terms of the degree to which architectural and archaeological heritage is protected and conserved. As such, the adoption of any such alternative could achieve this goal, subject to objectives being included in the written statement for the protection and conservation of architectural and archaeological heritage.

Landscape

Each alternative, to varying degrees, achieved the goal to protect scenic landscapes. The 'Most Environmentally Friendly' alternative includes proposals for the rezoning of high lands as Greenbelt, Open Space and Urban Habitat and consequently removes objectives for the development of new roads in these areas. These elements of this alternative contribute to the greatest achievement of the goal to protect scenic areas of the settlement, and as such these elements should have been included, where possible, in the Plan.

Climate

Alternative 3 introduces measures which aim to minimise greenhouse gas emissions. This alternative promotes a compact urban form which reduces the need for vehicular travel, thereby resulting in a reduction of harmful vehicle based emissions. This urban form has been in so far as is possible, been incorporated in the Plan.

Air Quality

There is a significant link between the goal to achieve good air quality and the goal to minimise greenhouse gases. As with the above assessment for 'Climate', the goal to achieve good air quality can be best achieved through proposals set out in the 'Roads and Transportation' alternative and the 'Most Environmentally Friendly' alternative.

Soils

Each alternative was deemed to have a positive impact in terms of maintaining the quality of soils in the area.

Section 5

Monitoring Measures

5.1 Introduction

The SEA Directive requires that the significant environmental effects of the implementation of plans and programmes are monitored. This section and section 10 of the environmental report puts forward proposals for monitoring the impacts of implementation of the Development Plan, which are adopted alongside the Development 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 Development Plan is achieving its environmental objectives and targets - measures which the Development Plan can help work towards - whether these need to be re-examined and whether the proposed mitigation measures are being implemented.

5.2 Indicators and Targets

Monitoring is based around the indicators, which were chosen earlier in the process. These indicators allow quantitative measures of trends and progress over time relating to the Environmental Protection Objectives used in the evaluation. Focus will be given to indicators which are relevant to the likely significant environmental effects of implementing the Development Plan and primarily to existing monitoring arrangements in order to monitor the selected indicators. Each indicator to be monitored will be accompanied by the relevant target(s) - measures which the Development Plan can help work towards - which were identified with regard to the relevant legislation. The table below illustrates that the indicators and targets, which have been selected with regard to the monitoring of the plan.

5.3 Sources

In compliance with the SEA Directive and the DECLG Guidelines, measurements for indicators come from existing monitoring sources and no new monitoring should be required to take place. Existing monitoring sources exist for many of the indicators and include those maintained by Wicklow Town Council / Wicklow County Council and the relevant authorities e.g. the Environmental Protection Agency, the National Parks and Wildlife Service and the Central Statistics Office.

The Development Management Process in Wicklow Town Council / Wicklow County Council will provide additional monitoring of certain indicators and targets on an application-by-application basis. Where significant adverse effects - including positive, negative, cumulative and indirect - are likely to occur upon, for example, entries to the Record Monuments and Places, entries to the Record of Protected Structures or ecological networks as a result of the undertaking of individual projects or multiple individual projects such instances will be identified and recorded and will feed into the monitoring evaluation.

5.4 Reporting

The ongoing monitoring of the Wicklow - Rathnew Development Plan and its implications on the environment is paramount to ensure that the environment of the Plan area and zone of influence is not adversely affected by the implementation of the Plan.

5.5 Responsibility

Wicklow Town Council and 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.

5.6 Thresholds

Thresholds at which corrective action will be considered are as follows:

- ⇒ Boil notices on drinking water;
- ⇒ Fish kills;
- ⇒ Court cases taken by the DEHLG regarding impacts upon archaeological heritage including entries to the Record of Monuments and Places; and,
- ⇒ Complaints received from statutory consultees regarding avoidable impacts resulting from development, which is granted permission under the plan.

Table 5.1 Monitoring Measures

Population and Human Health: To provide for population growth on appropriate lands within a healthy, high quality environment

Environmental Protection Objective	Target	Indicator	Responsible Authority/ Information Source
PHH1: Plan for projected population up to 2019/2022	Ensure amount of land zoned reflects projected growth targets.	Remove land that accommodates growth beyond population target.	WCC/WTC
PHH2: Promote a high quality living environment	Create compact settlement pattern / sustainable mixed use development. Increase modal shift public transport, walking and cycling. Access to health and education facilities Access to employment	Amount of mixed use developments Sustainable densities Amount of pathways/cycleways. Regularity of trains/buses and degree of route expansion. % change of commuter transport/distances/time Quantity and accessibility of health and education facilities. Amount of jobs	WCC/WTC CSO/Department of Education and Skills/HSE/Department of Jobs, Enterprise and Innovation/ Live Register/ NTA
PHH3: Create a healthy environment	Ensure drinking water is safe/ quality improved	Removal of Wicklow Regional Public Supply from EPA Remedial Action List % population exposed air pollutants including Nitrogen Oxides (NOx) and	EPA WCC/WTC HSE

	Reduce exposure to high levels of air pollution. Minimisation of noise pollution.	particulate matter (PM10). %population exposed to high noise, and in particular levels beyond the relevant standards	
PHH4: Access to amenity and recreational space	Improve accessibility to and quality of amenity spaces	Changes in the amount/type/location of recreational facilities	WCC/WTC

Biodiversity, Flora and Fauna: Maintain and enhance biodiversity

Environmental Protection Objective	Target	Indicator	Responsible Authority/ Information Source
BIO1: Conserve the diversity of protected habitats and species on designated sites.	Protection of Natura 2000 sites. Protection of pNHAs Protection of protected trees	Achievement of conservation objectives of designated sites. Amount of TPOs.	NPWS WCC/WTC
BIO2: Conserve the diversity of habitats and species in non-designated sites	Protection of urban habitat site Improve protection for important undesignated habitats, particularly urban wildlife corridors. Protect habitats from invasive species	% loss of non designated natural habitats including Trees hedgerows Public open space Recreation/amenity areas. Surveys with regard to numbers and types of invasive species.	NPWS WCC/WTC
BIO3: Protect river habitats	Protection of river and riverside habitats	% habitat/species loss in river/riverside habitats over lifetime of plan.	NPWS WCC/WTC

Water Resources: Achieve a 'good' quality status in all water bodies within the plan area, in line with the target dates set out in the Eastern River Basin Management Plan 2009-2015

Environmental Protection Objective	Target	Indicator	Responsible Authority/ Information Source
WAT1: Improve water quality of surface waters to status objectives as set out in the Water Framework Directive	For all river water bodies and transitional water body to achieve WFD 'good' quality status by 2015, and to retain the high status of the coastal water body.	Changes in receiving water quality as identified during water quality monitoring for the WFD conducted by WCC and EPA	EPA WCC/WTC Eastern River Basin District Project
WAT2: Protect Vartry River of salmonid importance	Improve Biotic rating (Q value) of Vartry Lower water body from current moderate status (Q 3-4) to good status (Q4).	Biotic quality rating of river waters at EPA monitoring locations	EPA WCC/WTC Eastern River Basin District Project
WAT3: Prevent pollution of groundwater	Improvement or at least no deterioration in groundwater quality, so that good status of Wicklow East groundwater body is retained.	Changes in groundwater quality as identified in monitoring programmes conducted by WCC and EPA	EPA WCC/WTC Eastern River Basin District Project

Material Assets: Make most efficient use of existing Infrastructure, particularly water services and transportation infrastructure.

Environmental Protection Objective	Target	Indicator	Responsible Authority/ Information Source
MAT1: Make best use of existing water services infrastructure	Promoting development at locations served by existing water services infrastructure Reduce amount of unaccounted for water in the Wicklow Regional Public Supply from 32% to reduce level of unaccounted water to 22%.	Amount of new water services infrastructure. Changes in levels of unaccounted water, as monitored by WCC.	WCC/WTC/ Department of Environment, Community and Local Government
MAT2: Make the best use of existing road and transportation infrastructure	Promoting development at locations served by existing road and transportation infrastructure	Amount of new developments located along existing roads and transportation infrastructure.	WCC/WTC NTA

Flooding: Reduce and mitigate flood risk

Environmental Protection Objective	Target	Indicator	Responsible Authority/ Information Source
FL1: Avoid and mitigate river and coastal flood risk	Promote development in accordance with Flood Risk Assessment All new developments to incorporate SUDS design.	Number and type of developments in flood risk areas. Provision of SUDS compliant drainage plans for proposed developments in study area.	OPW WCC/WTC

Cultural Heritage: Protection and conservation of architectural and archaeological heritage

Environmental Protection Objective	Target	Indicator	Responsible Authority/ Information Source
CUL1: Protect and enhance architectural heritage, including structures on RPS and structures in Architectural Conservation Area	No loss in value of architectural heritage	Number of developments which enhance/ diminish the character and setting of architectural heritage	WCC/WTC Department of Arts, Heritage and the Gaeltacht
CUL2: Protect and enhance archaeological heritage including features identified on Record of Places and Monuments and Zone of Archaeological Potential	No loss in value of archaeological heritage.	Number of developments which enhance/ diminish the character and setting of archaeological heritage	WCC/WTC Department of Arts, Heritage and the Gaeltacht

Landscape: Protect scenic landscapes

Environmental Protection Objective	Target	Indicator	Responsible Authority/ Information Source
LAN1: Protection of listed views and prospects	No significant disruption of designated views and prospects	Number of developments located within the designated views and prospects.	WCC/WTC
LAN2: Protect visual amenity of scenic and highly visible landscapes, including the Murrough, Wicklow Head, Ballyguile, and upper slopes of Convent lands.	No development affecting highly visible and scenic landscapes	Number of developments located on sites that compromises visual amenity of these landscapes.	WCC/WTC

Climate: Minimise greenhouse gas emissions

Environmental Protection Objective	Target	Indicator	Responsible Authority/ Information Source
CLIM1: Minimise greenhouse gas emissions to meet National and International standards	Provide for increased use of public transport Increase number of cycle lanes and pedestrian routes in study area. Renewable energy projects	Use of public transport Provision of cycle lanes and walking routes Number of permissions granted for renewable energy projects	NTA WCC/WTC EPA
CLIM2: Achieve environmentally friendly building designs.	Compliance with Part L (Amendment) of the Building Energy Regulations S.I. No.259 of 2008	Amount of properties meeting targets.	WCC/WTC

Air Quality: to achieve good air quality

Environmental Protection Objective	Target	Indicator	Responsible Authority/ Information Source
AIR1: Protect good air quality status and minimise the output of Nitrogen Oxides (NOx) and Particulate matter (PM10)	Meet value targets for names pollutants in line with Air Quality Framework Directives Maintain or improve ambient air quality through reduction private vehicle usage.	Values of monitored pollutants in the air, including levels of Nitrogen Oxides (NOx) and Particulate matter (PM10). % changes in amount of car use.	EPA NTA CSO

Soils: Maintain quality of soils

Environmental Protection Objective	Target	Indicator	Responsible Authority/ Information Source
SOIL1: Maximise the sustainable re-use of brownfield sites and maximise the use of the existing built environment	Development of brownfield sites during the lifetime of the plan.	Number of new developments on brownfield sites.	Geological Survey of Ireland EPA WCC/WTC

ENVIRONMENTAL REPORT OF THE **WICKLOW TOWN - RATHNEW**

DEVELOPMENT PLAN 2013 – 2019

STRATEGIC ENVIRONMENTAL ASSESSMENT (SEA)

APPENDIX D

WICKLOW TOWN - RATHNEW DEVELOPMENT PLAN 2013-2019

Adopted WCC 02 September 2013

Adopted WTC 04 September 2013



WICKLOW TOWN COUNCIL & WICKLOW COUNTY COUNCIL

Volume 1

Wicklow Town Council, Town Hall, Market Square, Wicklow Town
Wicklow County Council, County Buildings, Station Road, Wicklow Town

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NON-TECHNICAL SUMMARY

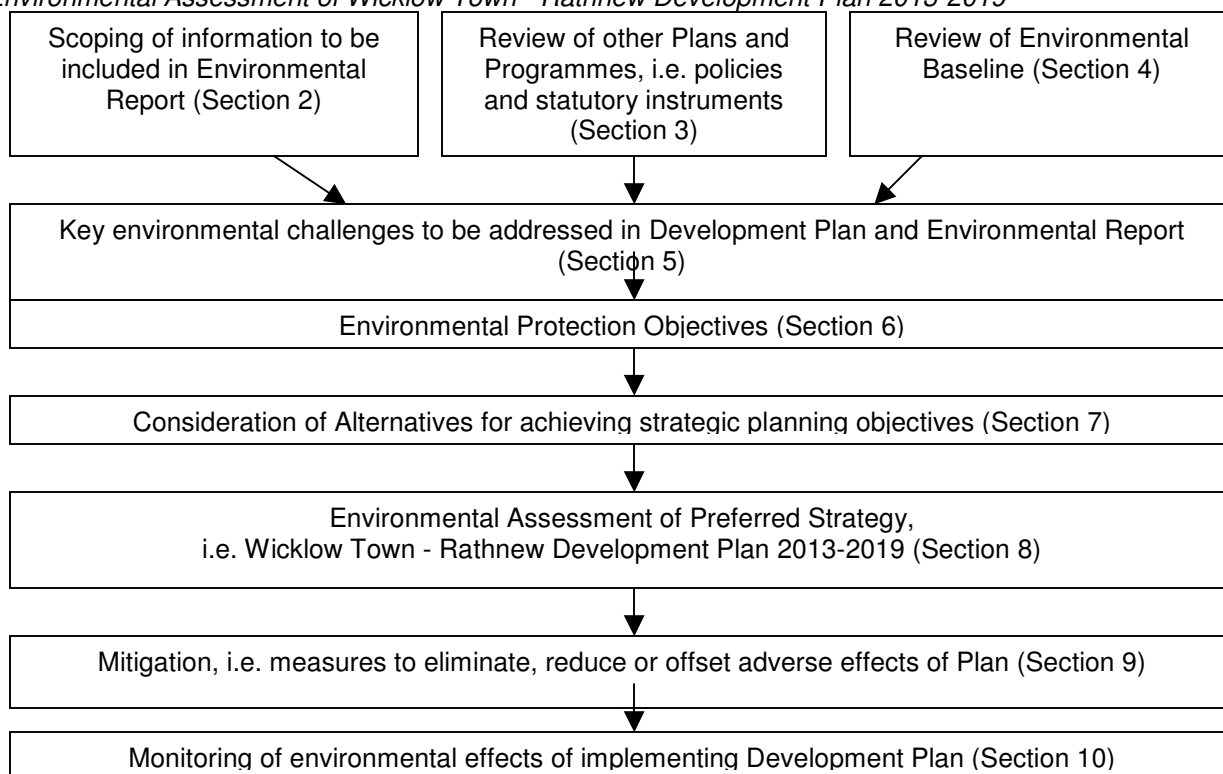
1. INTRODUCTION

This Environmental Report has been prepared as part of the Strategic Environmental Assessment (SEA) of the Wicklow Town- Rathnew Development Plan 2013-2019, in accordance with national and EU legislation. SEA is a method of assessing the potential significant environmental impacts and effects of the Development Plan by integrating environmental factors in the preparation of the Plan.

2. METHODOLOGY

The following diagram describes the steps that have been undertaken in the preparation of the Environmental Report. Each stage of the methodology is dealt with under the different sections of the Environmental Report.

Figure 1: Methodology for the preparation of Environmental Report for the Strategic Environmental Assessment of Wicklow Town - Rathnew Development Plan 2013-2019



3. DESCRIPTION OF THE WICKLOW TOWN- RATHNEW DEVELOPMENT PLAN 2013-2019

The Wicklow Town- Rathnew Development Plan 2013-2019 applies to the administrative area of Wicklow Town Council and to that part of the administrative area of Wicklow County Council which forms the environs of Wicklow Town, including the village of Rathnew. The Development Plan sets out the overall strategy for the proper planning and sustainable development of the area and consists of a written statement and plan indicating the development objectives for the area.

The overall strategy for the plan area is set out in the Vision and Core Strategy for the plan area, as set out in Chapter 2 of the Development Plan.

The Vision for the Development Plan is for “Wicklow Town, Environs and Rathnew to be a prosperous and growing community in the garden county of Wicklow, offering a unique and high quality of life by providing for a sustainable and local work/life balance; within a quality environment for all who live, work and visit the area.”

Key elements of the Core Strategy include:

- The Core Strategy provides for the future population growth of the plan area through population targets. These targets indicate that the population of the plan area is to grow from 13,468 (2011) to 19,000 by 2016, 21,500 by 2019 and 24,000 by 2022. The Development Plan makes provision for the achievement of these targets through ensuring that sufficient zoned and serviced land is available for housing, employment and social uses. The Development Plan will ensure that zoned land is provided to cater for the 2022 projected population.
- Under the previous 3 plans¹, there was sufficient zoned land to provide 9,587 units. Given the housing requirement of an additional 5,662 units up to 2022, there is a requirement to remove surplus zoned land for residential use. Surplus land is re-zoned Strategic Land Bank, to provide for future development, beyond the timeframe of the plan. This is in accordance with Core Strategy Guidelines. Accordingly, the Plan zones land to provide for 5,699 units in 2 phases (2013-2019 – 3980 units, post 2019 -1719 units).
- There is currently sufficient zoned land to provide 31,000 jobs. Given the requirement to provide 9,400 jobs in 2022, there is a need to remove surplus zoned land for employment use. Surplus land is re-zoned Strategic Land Bank, to provide for future phases of development, beyond the timeframe of the plan. This is in accordance with Core Strategy Guidelines.
- The retail policies and objectives set out in the Plan aim to re-enforce Wicklow Town's status as a 'Level 2' County Town retail centre and Rathnew's status as a 'Level 4' local centre.
- The Strategy aims to maximise the use of existing infrastructure in the plan area through ensuring that land which is zoned is adequately served by roads, public transport and water services infrastructure.
- The protection of built and natural heritage.

4. SCOPE OF INFORMATION TO BE INCLUDED IN THE ENVIRONMENTAL REPORT

The SEA scoping phase is a key part of the assessment process as it establishes the range of environmental issues to be covered and the level of detail that the assessment will investigate. The scoping process allows input from the statutory environmental authorities² to be incorporated at the early stage of the SEA. Essentially, any issues/comments submitted as part of the scoping process will provide greater focus on the environmental issues in the development of the Plan. In July 2011, the statutory environmental authorities were invited to make submissions. In line with best practice, a Scoping Report was prepared by the planning authority to facilitate the consultation process. A range of submissions were received in response to the Scoping Report, which have been incorporated into the environmental assessment process.

5. RELATIONSHIP OF THE WICKLOW TOWN- RATHNEW DEVELOPMENT PLAN 2013-2019 WITH OTHER PLANS AND PROGRAMMES

The 'Wicklow Town-Rathnew Development Plan 2013-2019' sits within a hierarchy of International, European, national, regional and local planning policies and statutory instruments. These policies and instruments are required to be taken into account in the development of

¹ Wicklow Town Development Plan 2007, Wicklow Environs and Rathnew LAP 2008, Action Area 6 LAP 2006

² Environmental Protection Agency (EPA), Minister for the Environment, Community and Local Government, Minister for Agriculture, Marine and Food, Minister for Communications, Energy and Natural Resources (in some cases), Minister for Arts, Heritage and Gaeltacht Affairs (in some cases), adjoining planning authorities.

objectives for the Plan and Environmental Protection Objectives for the Environmental Report. A list of these policies and instruments are set out below.

Key International and European policies and statutory instruments that have a relationship with the 'Wicklow Town- Rathnew Development Plan 2013-2019' include:

- Kyoto Protocol
- Nagoya Protocol – Strategic Plan for Biodiversity 2011-2020
- EU SEA Directive
- EU Habitats Directive
- EU Birds Directive
- EU Water Framework Directive
- EU Groundwater Directive
- EU Drinking Water Directive
- EU Bathing Water Directive
- EU Floods Directive
- EU Urban Waste Water Treatment Directive (91/271/EEC) as amended by 98/15/EEC
Urban Wastewater Treatment Directive
- EU Shellfish Waters Directive
- EU Freshwater Fish Directive
- EIA (Environmental Impact Assessment) Directive
- EU Seveso Directive
- EU Directive on Ambient Air Quality and Cleaner Air for Europe (CAFE)
- EU Pesticides Directive
- EU Directive on the Energy Performance of Buildings (EPBD)
- EU Renewables Directives
- EU Waste Framework Directive, including Waste Directive 75/442/EEC
- EU Landfill Directive
- EU IPPC Directive
- EU Nitrates Directive
- EU Environmental Noise Directive
- The European Landscape Convention (Florence 2000)
- European Commission White Paper on Adapting to climate change: Towards a European Framework for Action (COM(2009)147)

Key national policies and statutory instruments that have a relationship with the 'Wicklow Town - Rathnew Development Plan 2013-2019' include:

- Planning and Development Act 2000 (as amended), and Planning and Development Regulations 2001 (as amended)
- European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 S.I. 435 of 2004 and Planning and Development (Strategic Environmental Assessment) Regulations 2004 S.I. 436 of 2004, as amended by Planning and Development (SEA) (Amendment) Regulations 2011 S.I. 201 of 2011
- National Development Plan 2007-2013
- National Spatial Strategy 2002-2020
- National Climate Change Strategy 2007-2012
- Transport 21 2006-2015
- Department of Transport 2020 Vision – Sustainable Travel and Transport (2009)
- Government White Paper – Delivering a Sustainable Energy Future for Ireland 2007-2020
- National Biodiversity Plan: Actions for Biodiversity 2011-2016
- National Energy Efficiency Action Plan 2009-2020
- Wildlife Act 1976 and Wildlife (Amendment) Act 2000
- EU (Natural Habitats) Regulations, 1997 (S.I. No.94 of 1997) and amendments S.I. No.233 of 1998 and S.I. 378 of 2005

- Water Services Act 2007
- Water Services (Amendment) Bill 2011
- European Communities (Water Policy) Regulations 2003
- European Communities Environmental Objectives (Surface Waters) Regulations 2009
- EC Environmental Objectives (Groundwater) Regulations 2010, and Amendment Regulations 2011
- European Communities (Drinking Water) Regulations 2000 and 2007
- EC (Quality of Salmonid Waters) Regulations 1988
- Bathing Water Regulations 2008 and 2011
- Waste Water Discharge (Authorisation) Regulations 2007, and Amendment Regulations 2010
- Urban Wastewater Treatment Regulations 2001
- European Communities (Quality of Shellfish Waters) Regulations 2006 and European Communities (Quality of Shellfish Waters) (Amendment) Regulations 2009
- Water Conservation Regulations 2008
- Nitrates Regulations 2006 and EC (Good Agricultural Practice for the Protection of Waters) Regulations, 2007, 2009, 2010 Waste Management (Use of Sewage Sludge in Agriculture) Regulations 1998, as amended 2001
- Environmental Noise Regulations 2006 (S.I.140 of 2006)
- Air Quality Standards Regulations 2011 (S.I. No. 180 of 2011)
- Sustainable Residential Development in Urban Areas – Guidelines for Planning Authorities 2009
- Best Practice Urban Design Manual
- Sustainable Rural Housing Development – Guidelines for Planning Authorities 2005
- Flood Risk Management – Guidelines for Planning Authorities 2009
- Architectural Heritage Protection – Guidelines for Planning Authorities 2004
- Spatial Planning and National Roads – Guidelines for Planning Authorities 2012
- Landscape and Landscape Assessment – Guidelines for Planning Authorities 2000
- Strategic Environmental Assessment – Guidelines for Planning Authorities 2004
- Telecommunications Antennae and Support Structures – Guidelines for Planning Authorities
- Tree Preservation – Guidelines for Planning Authorities
- Wind Energy Development – Guidelines for Planning Authorities
- Appropriate Assessment of Plans and Projects in Ireland – Guidance for Local Authorities 2010
- EPA Code of Practice on Wastewater Treatment and Disposal Systems serving Single Houses (October 2009),
- Environmental Protection Agency (EPA), Inland Fisheries and National Roads Authority (NRA) Guidelines as appropriate
- Record of Monuments and Places
- National Inventory of Architectural Heritage (NIAH).

Key regional policies and statutory instruments that have a relationship with the 'Wicklow Town - Rathnew Development Plan 2013-2019' include:

- Regional Planning Guidelines for the Greater Dublin Area 2010-2022
- Retail Strategy for the GDA 2008-2016
- Greater Dublin Area Draft Transport Strategy (National Transport Authority) 2011
- Eastern River Basin Management Plan 2009-2015 and associated Programme of Measures
- Greater Dublin Strategic Drainage Study 2005
- Water Supply Project Dublin Region
- Catchment wide Flood Risk Assessments

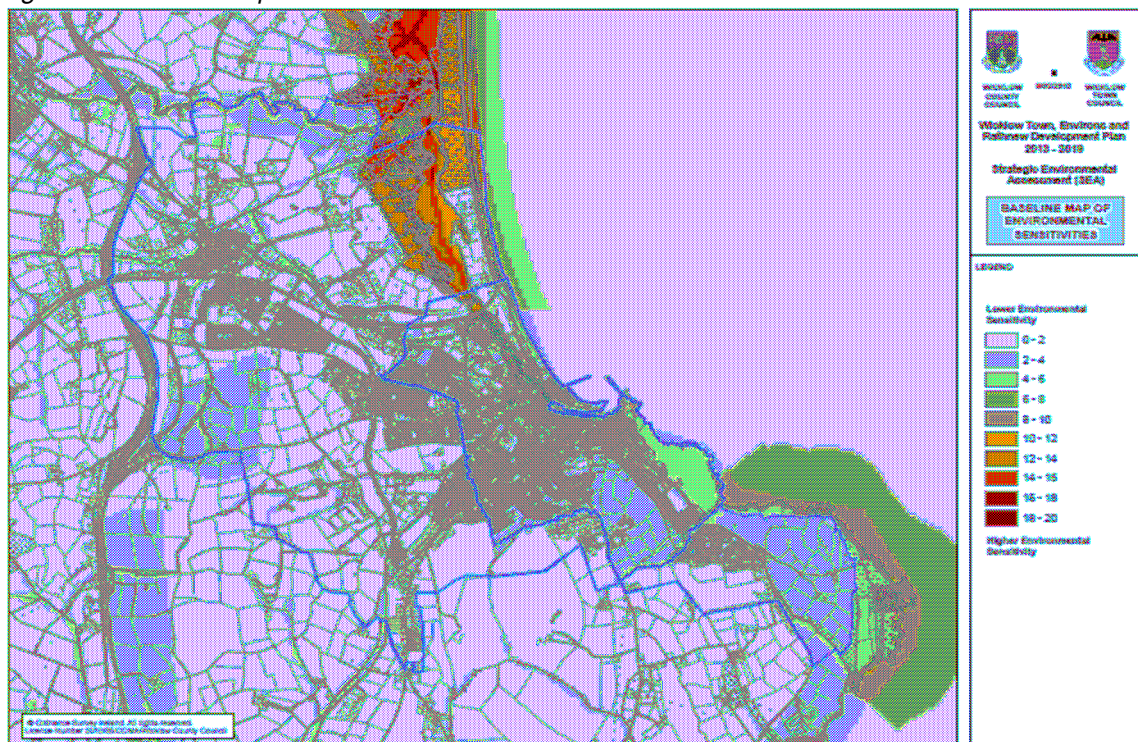
Key local policies and statutory instruments that have a relationship with the 'Wicklow Town-Rathnew Development Plan 2013-2019' include:

- Wicklow County Development Plan 2010-2016
- Wicklow County Council Development Contribution Scheme, 2008
- Wicklow Town Council Development Contribution Scheme, 2008
- Outlook 2002-2012 Wicklow County Development Board Strategic Plan
- Wicklow County Waste Management Plan 2006-2011
- Wicklow County Water Services Investment Programme 2010-2012
- County Wicklow Outdoor Recreation Strategy 2009-2013
- County Wicklow Biodiversity Action Plan 2010-2016
- County Wicklow Heritage Plan 2009-2014
- County Wicklow Wetland Survey (WCC/Faith Wilson and Peter Foss, 2011)
- Wicklow Town River Analysis (WCC/ Barry and Partners, 2004)
- Wicklow Town Public Realm Plan (WCC/Heritage Council, 2008)
- The Murrough Coastal Protection Study (WCC/RPS, 2007)
- Wicklow Urban Habitat Mapping (WCC/Heritage Council, 2008)
- Wicklow Town Shop Front Study (2010)
- Wicklow and Environs Integrated Framework Plan for Land Use and Transportation (IFPLUT) 2003

6. CURRENT STATE OF THE ENVIRONMENT

The key environmental characteristics of the area includes factors such as population and human health, biodiversity, flora and fauna, water resources, material assets, flooding, cultural heritage, climate, air quality and soil. The environmental characteristics of the area were mapped and, using Geographical Information Systems, the information was amalgamated to create a map which shows the most environmentally sensitive features of the plan area. This map allows for the determination of potential environmental impacts. This map of environmentally sensitive areas is set out in Figure 2 below.

Figure 2: Baseline Map of Environmental Sensitivities



The map indicates that the following areas have environmental characteristics that are particularly vulnerable:

- The Murrough, Wicklow Head and area designated as the Wicklow Town pNHA, are highly vulnerable areas, reflecting the large number of environmental characteristics in these areas, including Natura 2000 sites, pNHAs, listed prospects, national monuments and flood risk areas and areas prone to erosion (the Murrough).
- The Vartry River is a highly vulnerable characteristic, reflecting its protected status as a River of Salmonid Importance.
- The area that forms the Wicklow Head Golf Course is of value, reflecting its designation as an urban habitat³ and lands affected by listed prospects from the coast road towards the sea.
- Wicklow Town Centre's vulnerability is attributed to designations including the Zone of Archaeological Potential, Architectural Conservation Area and protected structures in the area.
- The Convent Lands is identified as a vulnerable area, reflecting its status as an urban habitat⁴.
- Lands in proximity to rivers are generally identified as being vulnerable, having regard to their vulnerability as water bodies and risk posed by flooding. This is particularly acute on lands south of the Vartry River.
- Lands south of Rathnew are identified as being vulnerable, having regard to listed prospect no.29 to Murrough and sea.
- Lands at Hawkstown are identified as being vulnerable, having regard to listed prospect no.30 from N11 to Hawkstown Hill.

Particular regard is to be paid to the above areas and the reasons affecting their vulnerability, in the preparation of the Development Plan.

In line with the Guidelines, the 'do-nothing' scenario was considered to assess the likely impact on the environment in the event that present trends continue, without any policy changes or infrastructural improvements. The 'do-nothing' scenario forms the basis of comparison against which the environmental effects of the Development Plan can be measured.

7. KEY ENVIRONMENTAL CHALLENGES

Following the scoping exercise, the review of the strategic planning objectives for the Plan, the review of the key policy and statutory instruments that have a relationship with the Plan, and the carrying out of the environmental baseline study, a number of environmental challenges have been identified which are particularly significant. These issues need to be addressed in the preparation of the Plan and in the drafting of Environmental Protection Objectives. These issues include the following:

7.1 Servicing the Growth of a Healthy Population in a Sustainable Settlement Form

The amount of land zoned for residential and employment purposes exceeds the amount required to accommodate projected growth. As such, it is a requirement to remove zonings that account for this over supply, through measures that may include de-zoning, rezoning or phasing of lands. The lands on which zoning is retained should be lands that are most suitable for development, which best provide a sustainable settlement form, which best serve the economic and social needs of the area, which maximise the best use of existing infrastructure, which provide for a healthy population, and which have the least detrimental environmental effects.

³ This urban habitat has been designated as being of low conservation status with low species richness.

⁴ This urban habitat has been designated as being generally of moderate status with low species richness/green lung in town.

7.2 Maximising the Efficient use of Water Services Infrastructure

It is essential that lands retained for development within the plan area are served by water infrastructure. Taking account of the fact that not all areas of the plan area can be supplied with water, this is a significant environmental issue facing the development of the plan area.

7.3 Maximising the Efficient use of Roads and Transportation Infrastructure

It is essential that lands retained for development within the plan area are served by road infrastructure. In recent years, major infrastructural projects including the Wicklow Port Access and Town Relief road have been undertaken in the town. The Wicklow Port Access Road has increased accessibility to the port and industrial areas of the town, and has reduced the movement of HGVs through the town, thereby reducing traffic congestion and enhancing the amenity of these areas. The Town Relief Road provides a key transportation spine road that provides access to new development areas to the west of the plan area and links with the main transportation routes in and out of the settlement. Notwithstanding the objectives included in the existing plan for future road objectives including east west links between the coast road and Marlton Road and a transportation interchange at Rathnew, it is considered that these objectives are no longer achievable within the lifetime of the current plan. As such, it is essential that the lands retained for development are served either by existing infrastructure, or infrastructure that can be improved or developed within the lifetime of the plan.

7.4 Protection of Water Bodies

Problems with regard to water quality have the potential for a significant adverse impact upon biodiversity and flora and fauna, drinking water supplies and human health. The European Union Water Framework Directive (WFD) requires that water bodies achieve a 'good ecological status' by 2015. Where possible, the plan should aim to implement land use zonings and objectives that improve water quality.

The Eastern River Basin Management Plan (ERBMP) provides details on the environmental pressures that pose a risk to the quality of the water bodies. In general, the most significant threats to water bodies within the ERBMP arise from pollution from wastewater treatment systems, industry and agriculture. Having regard to the fact that the plan area is served by a public mains system and a new Wastewater Treatment Plant, it is considered that the threat arising from wastewater treatment systems within the plan area is not significant. However notwithstanding this, spills and leakage from foul water system networks can cause pollution, as evidenced by pollution linked to contamination of the surface water system caused by foul sewer misconnections along the Marlton Stream. In this regard, the water services section of the Council has responsibility for the upgrading of sewer systems as and when required.

Other threats to water quality in the plan area arise from potentially harmful industrial discharges, and nutrient and organic pollution attributed to agriculture. In this regard, there is one IPPC Licensed⁵ facility located within the plan area. Crown Timber plc is located in proximity to the environmentally sensitive water body in the Murrough area of the town.

Regard will be paid to ensuring the protection of all areas that are designated on the WFD register of 'protected areas' which are relevant to the study area, including Vartry (River)

⁵ An Integrated Pollution Prevention Control (IPPC) License is required for certain large scale industrial and agricultural activities. The Environmental Protection Agency (EPA) is the competent authority for granting and enforcing IPPC Licenses. IPPC licenses aim to prevent or reduce emissions to air, water and land, reduce waste and use energy/resources efficiently. An IPPC license is a single integrated license which covers all emissions from the facility and its environmental management.

salmonid waters, Vartry (River) Protected Drinking water area, Wicklow East (protected groundwater drinking supply), and all NHAs, SPAs and SACs.

7.5 Protecting The Murrough cSAC and SPA

The Murrough area is a perhaps the most sensitive area within the plan area. The high vulnerability of the site can be attributed to a combination of the large number of environmental designations and characteristics of the area and the large number of pressures.

Notwithstanding its high vulnerability, the Murrough is an area that faces significant risks. Pressures include urbanisation and encroachment onto open space, disturbance caused from access and recreational pressure, drainage and reclamation, water pollution, and agricultural pressures from which the system is likely to be receiving a high nutrient loading as well as grazing pressure.

An additional significant risk relates the proximity of industrial activities which directly adjoin the eastern boundary of the site. These include the Wicklow Wastewater Treatment Plant, located at Knockrobin, and other industrial activities including a timber yard and waste recycling centre. Risks associated with industrial activities include potentially polluting discharges. In recent years the area has become the subject of unauthorised activities including unauthorised industrial uses, waste disposal or modification of land through infill. Unauthorised activities in the area pose a significant risk to the integrity of the area.

It should be noted that any potential environmental effect arising from the Wicklow Wastewater Treatment Plant is mitigated by the compliance of the Wicklow Sewerage Scheme with the Urban Wastewater Directive. All treated effluent is discharged at a standard that complies with the requirements of the Urban Wastewater Directive.

The SEA process will consider options with regard to reducing, offsetting and avoiding any potential impacts that may result from the proximity of conflicting land uses in the Murrough area, while the Appropriate Assessment process will provide additional protection to the Natura 2000 sites.

7.6 Protecting Wicklow Head SPA and pNHA

Wicklow Head is an extremely sensitive area within the plan area. Again, the high vulnerability of the site can be attributed to the high number of environmental designations and characteristics. The main pressures on the area arise from recreational pursuits including walking and golfing, erosion and agricultural practices.

7.7 Addressing Flood Risk

There is a need to ensure that the plan objectives do not increase flood risk within the plan area or outside. Significant detrimental environmental effects of flooding can include damage to property, soil erosion and damage to vegetation, and deterioration of water quality and habitats, caused by pollutants carried by flood water. Through the appropriate zoning of land and the implementation of measures such as sustainable urban drainage systems, flood risk can be avoided and mitigated.

7.8 Protection of Biodiversity

There is a need to ensure the protection of biodiversity in the plan area. Biodiversity within the plan area includes designated and non-designated areas. Many biodiversity areas within the Wicklow Town Council area have been identified as urban habitats. In addition, river habitats and trees identified for protection provide additional biodiversity corridors within the plan area. It is essential that where possible, biodiversity areas are retained and enhanced.

7.9 Protection of Scenic Landscapes

The settlement of Wicklow and Rathnew is located within a scenic landscape. Areas of high visual amenity include lands to the south and southwest of the town, which are located at high gradients, as well as lands located at the Murrough and Wicklow Head. In addition, the plan area includes a number of views and prospects that are listed for protection. It is important that regard is paid to the nature of landscapes in the plan area, the high visibility of hilly areas and potential difficulties in servicing these lands with infrastructure.

7.10 Protection of Built Heritage

The plan area has a significant amount of built heritage, including protected structures, national monuments, Architectural Conservation Areas, Zone of Archaeological Potential and a large number of structures that are included on the National Inventory of Architectural Heritage. It is important that growth and development in the plan area does not compromise the integrity of this built heritage.

7.11 Climate Change

In order to achieve commitments made under the Kyoto Protocol, there is a pressing need for all areas in the country to reduce greenhouse gases. In this regard, the plan has a role to plan in ensuring that where possible vehicular transport movements are replaced with sustainable transportation movements, thereby leading to a reduction in dangerous emissions and improved air quality. In addition, objectives can be included to promote energy efficient building designs.

7.12 Air Quality

Although air quality in the study area is generally good, environmental nuisance such as dust deposition and odour can impact on amenity of the environment and affect communities. Nuisance can occur at a local level in the vicinity of industrial, waste and wastewater treatment facilities. The EC Waste Water Treatment (Prevention of Odours and Noise) Regulations 2005 require that waste water treatment plants are designed, constructed and maintained to avoid causing nuisance through odours and noise. The EPA audits the facilities to assess compliance with the Regulations.

7.13 Soil

There is need for increased awareness of geomorphic sites and their importance in relation to natural heritage. Soil fertility can be degraded through increased urbanisation. Compaction and structural degradation of soils can result from construction, leading to reduced water drainage and aeration capacity and increased risk of erosion, flooding and degradation of flora and fauna.

Well drained and poorly drained soils vary in their capability to absorb runoff. Poorly drained and urban soils have a higher risk of runoff, whilst well drained soils have a lesser risk. Runoff into the area's water bodies has the potential to alter nutrient balances which can lead to the eutrophication of rivers and lakes. In addition, unabsorbed runoff has implications in terms of flood risk in the area.

7.14 Recreational Infrastructure

It is essential that access to amenity and recreational space is provided in accordance with projected growth in population.

8. ENVIRONMENTAL PROTECTION OBJECTIVES

Environmental Protection Objectives (EPOs) are measures used to show whether the objectives of the Plan are beneficial to the environment and to compare the environmental effects of alternatives for the preparation of the Plan. These objectives have been devised having regard to the key environmental challenges that face the plan area and to the environmental factors⁶ set out in the SEA Regulations, which might be significantly impacted upon by the plan.

The environmental objectives are developed from a protection goal for each environmental topic. The environmental goals and objectives are set out in the following table.

Table 1: Environmental Receptors, Goals and Environmental Protection Objectives (EPOs)

Environmental Receptor	Environmental Goal	Environmental Protection Objectives (EPOs)
Population and Human Health	To provide for population growth on appropriate lands within a healthy, high quality environment	PHH1: Plan for projected population up to 2019/2022 PHH2: Promote a high quality living environment PHH3: Create a healthy environment PHH4: Access to amenity and recreational space
Biodiversity, Flora and Fauna	Maintain and enhance biodiversity	BIO1: Conserve the diversity of protected habitats and species on designated sites. BIO2: Conserve the diversity of habitats and species in non-designated sites BIO3: Protect river habitats
Water Resources	Achieve a 'good' quality status in all water bodies within the plan area, in line with the target dates set out in the Eastern River Basin Management Plan 2009-2015	WAT1: Improve water quality of surface waters to status objectives as set out in the Water Framework Directive WAT2: Protect Vartry River of salmonid importance WAT3: Prevent pollution of groundwater
Material Assets	Make most efficient use of existing infrastructure, particularly water services and transportation infrastructure.	MAT1: Make best use of existing water services infrastructure MAT2: Make the best use of existing road and transportation infrastructure
Flooding	Reduce and mitigate flood risk	FL1: Avoid and mitigate river and coastal flood risk

⁶ biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and interrelationships between these factors

Cultural Heritage	Protection and conservation of architectural and archaeological heritage	<p>CUL1: Protect and enhance architectural heritage, including structures on RPS and structures in Architectural Conservation Area</p> <p>CUL2: Protect and enhance archaeological heritage including features identified on Record of Places and Monuments and Zone of Archaeological Potential</p>
Landscape	Protect scenic landscapes	<p>LAN1: Protection of listed views and prospects</p> <p>LAN2: Protect visual amenity of scenic and highly visible landscapes, including the Murrough, Wicklow Head, Ballyguile and upper slopes of Convent lands</p>
Climate	Minimise greenhouse gas emissions	<p>CLIM1: Minimise greenhouse gas emissions to meet National and International standards</p> <p>CLIM2: Achieve environmentally friendly building designs.</p>
Air Quality	Achieve good air quality	AIR1: Protect good air quality status and minimise the output of Nitrogen Oxides (NOx) and Particulate matter (PM10)
Soils	Maintain quality of soils	SOIL1: Maximise the sustainable re-use of brownfield sites and maximise the use of the existing built environment

Based on these objectives a range of environmental targets and indicators was devised. Targets set aims and thresholds which should be taken into consideration to effectively assess the impact of the Plan on the environment, and indicators are measures used to track the achievements of the environmental protection objectives in the Development Plan and to monitor the impact of the Development Plan on the environment. The targets and indicators are set out in Section 6 of the Environmental Report.

9. CONSIDERATION OF DEVELOPMENT PLAN ALTERNATIVES

As part of the SEA process, consideration was given to alternative development patterns for the region. Each of the alternatives is required to be reasonable, and to be in accordance with the overall development strategy for the area. Accordingly, the alternatives comply with the following key components of the overall development strategy, as set out in the Core Strategy and Vision of the Plan. The following four possible development patterns were evaluated as part of the SEA:

1. The Most Environmentally Friendly Option
2. Water Services Determinant
3. Roads and Transportation Determinant
4. Concentric Development Pattern

The above alternatives have been evaluated at a strategic level, through an assessment that measures the compatibility of each alternative with the environmental goals. The findings of this assessment are summarised in Table 2 and are described below.

Table 2: Compatibility of Alternatives with SEA Environmental Goals

Alternative	SEA Environmental Goals									
	Population and Human Health	Biodiversity, Flora and Fauna	Water Resources	Material Assets	Flooding	Cultural Heritage	Landscape	Climate	Air Quality	Soils
1. Most Environmentally Friendly										
2. Water Services Determinant										
3. Roads and Transportation Determinant										
4. Concentric Development Pattern										

	Alternative is consistent with environmental goal
	Alternative is majorly consistent with environmental goal
	Alternative is in conflict with environmental goal
	Neutral/ Uncertain

As demonstrated by the above table, it is clear that there are associated costs and benefits with following any one of these alternatives. As such, the 'preferred strategy' for the Plan is likely to reflect a combination of different parts of the alternatives, rather than strict adherence to one. Accordingly, the preparation of the Plan with the most beneficial effect on the environment should incorporate the best aspects of the four alternatives.

In addition to aiding in the determination of the 'preferred strategy', the consideration of alternatives proved beneficial in terms of measuring the likely site specific impact on the environment of implementing a proposed zoning objective. An assessment was undertaken, with the aid of a Geographical Information System application, to measure the degree of environmental sensitivity of a particular site multiplied by the likely effect of the type of development permitted by virtue of a zoning objective. The assessment is a useful tool for undertaking comparisons between the environmental effect of alternatives, and in highlighting areas that require mitigation measures to avoid, offset or reduce any potential negative effects on the environment. Areas identified in this assessment, which require mitigation include the Murrough, Wicklow Head, employment zones at Rathnew, Wicklow Town, Convent Lands, rivers and the lands at Broomhall affected by listed prospect no.29.

10. ASSESSMENT OF WICKLOW TOWN - RATHNEW DEVELOPMENT PLAN 2013-2019

This section of the Environmental Report is an assessment of the 'likely significant' effects of the Wicklow Town -Rathnew Development Plan 2013-2019 on the environment. This assessment has been undertaken through a determination of the 'likely significant' impact of the objectives of the Plan on the Environmental Protection Objectives (EPOs) set out in the Environmental Report.

A summary of the findings of this assessment is set out below. While the majority of impacts were found to be either positive or neutral, particular attention has been paid to the identification of the Plan objectives that conflict with the EPOs of the Environmental Report, and the measures that have been adopted to mitigate or offset these effects.

10.1 Population and Human Health

Overall, the SEA matrix indicates that the Plan has a positive or neutral impact on the EPO to provide for population growth on appropriate lands within a healthy and high quality environment. Of key importance to the achievement of this objective is the fact that the Plan provides enough zoned land to meet the needs of projected population targets for the lifetime of the current plan. Current zoned land that is surplus to the requirements of this projected population has been re-zoned and retained in a Strategic Land Bank, to provide for future development after the lifetime of the plan (refer to Section 1.3.2 of this report for full details). The retained zonings are located on lands that can be serviced and which are closest to the centres of Rathnew and Wicklow. This results in the promotion of a compact urban form and sustainable transportation and land use pattern, which reduces the need to travel and which provides access to housing, employment, health, educational and amenity space. This development pattern consequently promotes a healthy and high quality living environment.

10.2 Biodiversity, Flora and Fauna

One of the most important Environmental Protection Objectives is that which relates to the protection of biodiversity. Overall, the SEA matrix indicates that the Plan has a positive or neutral impact on the EPOs to maintain and enhance biodiversity. The following objectives of the Plan are particularly important in the achievement of this objective:

- All Natura 2000 and pNHA designated sites have been appropriately zoned as a 'Conservation Zone'.
- Non-designated sites, including urban habitats identified in the Wicklow Urban Habitat Study 2008 and public open space areas have been zoned Open Space, where possible.
- Objectives are included to protect other natural heritage features including trees, wildlife corridors, hedgerows, natural boundaries etc.
- New protection has been provided to riparian habitats along the Rathnew, Burkeen and Marlton river systems through the re-zoning of land to Open Space, where possible, along these water systems.

Notwithstanding the above, it should be noted that a significant number of the Plan objectives were found to conflict with the EPOs to maintain and enhance biodiversity. These effects are described below:

- The most significant environmental issue facing the Plan relates to the conflict between industrial use of the Murrough North area and the extremely high environmental sensitivity and amenity value of the site. While the Plan retains the industrial zoning of the site, a new objective EMP11 has been drafted which includes strict environmental controls.
- In order to make the most efficient use of the Port Access Route, land adjoining this road has been rezoned from residential to employment use. Employment uses on the site are to be restricted to light industrial uses only to ensure that the integrity of the Natura 2000 site is safeguarded.
- The zoning of the Convent Lands for mixed use development including residential and community use conflicts with the EPO to protect urban habitats. The potentially harmful effects on the habitat are mitigated through the introduction of objective OS10.
- Chapter 5 sets out objectives for the promotion of enterprise and employment. In general, industrial activities can result in emissions which can have adverse effects on air, water and land, which can in turn have a cumulative impact on biodiversity. However, these

effects can be successfully mitigated through the environmental objectives set out in the Plan.

- Objectives for the promotion of tourism and recreation activities and for the promotion of sustainable energy forms can have damaging effects on natural heritage. However, these effects can be successfully mitigated through the environmental objectives set out in the Plan.
- Objectives for the development of new roads can be detrimental to natural heritage, both in a direct and a cumulative manner (whereby increased car usage results in emissions harmful to natural heritage). It is difficult to mitigate the harmful effect of new roads on non-designated sites, however the requirements of the Habitats Directive will safeguard the protection of Natura 2000 sites.

The Plan includes a significant amount of environmental protection objectives that mitigate successfully any potential harmful effects. These objectives include the following: NU1-NU3, NU4-NU9, WS2, WS4, EMP13, EMP11, TR2, TR3, TTP3 and RN1.

10.3 Water Resources

Overall, the SEA matrix indicates that the Plan has a positive or neutral impact on the EPOs to achieve a 'good' quality status in all water bodies within the plan area, in line with the target dates set out in the Eastern River Basin Management Plan 2009-2015. The following objectives of the Plan are particularly important in the achievement of the EPO:

- Strong protection is afforded to the Vartry River through the designation of an Open Space area that provides a buffer to the length of the river system that is within the plan area.
- Land adjoining the Rathnew, Burkeen and Marlton river systems has been re-zoned open space, where possible.
- A large part of the coastal and estuarine waters are protected by virtue of their zoning as Natura 2000 sites.
- The Wicklow East Groundwater Body is a protected drinking water supply. Perhaps the greatest threat to this groundwater body is the development of private wastewater treatment systems. An objective has been introduced to the Plan through the SEA process to ensure that the use of the public mains system is prioritised, with permission for private abstraction systems restricted to exceptional circumstances only.

The following Development Plan objectives were found to conflict with the EPOs to achieve a 'good' quality status in all water bodies within the plan area, in line with the target dates set out in the Eastern River Basin Management Plan 2009-2015:

- The promotion of employment and enterprise uses could result in pollution leakage of water bodies.
- Objectives for tourism and recreation generally promote greater use of and access to rivers, port, harbour and coastal areas, thereby increasing the potential for pollution of these water bodies.
- Objectives for the development of renewable energy sources, particularly hydro-energy and offshore wind energy, may compromise the quality of river and coastal systems.
- Objectives for the development of new roads in Rathnew cross the river systems of the Rathnew Stream, with potentially harmful effects.

All of the above potentially negative effects are mitigated by the following key environmental objectives: WS1-WS6, W1-W9.

10.4 Material Assets

Overall, the SEA matrix indicates that the Plan has a positive or neutral impact on the EPOs to make the most efficient use of existing water services and transportation infrastructure.

A particularly significant EPO is to make the most efficient use of existing water services infrastructure. In this regard, the Plan is successful in directing development to locations that can be served by the Wicklow Water Supply Scheme. Lands not served by this Scheme have been re-zoned and held in a Strategic Land Bank.

10.5 Flooding

Overall, the SEA matrix indicates that the Plan has a positive or neutral impact on the EPO to reduce and mitigate flood risk. In accordance with the 'Flood Risk Management Guidelines for Planning Authorities' (DoEHLG, OPW, 2009), a Flood Risk Assessment (FRA) of the Plan has been prepared. This assessment has ensured that inappropriate development has been avoided in areas that are at risk of flooding. This, in combination with objectives FL1-FL7 of the Plan, ensures that flood risk has been reduced and mitigated throughout the plan area.

10.6 Cultural Heritage

Overall, the SEA matrix indicates that the Plan has a positive or neutral impact on the EPOs to protect and conserve architectural and archaeological heritage. Notwithstanding this, the SEA assessment did identify that the following objectives could be detrimental to the achievement of the EPOs:

- Objectives relating to Wicklow town centre in favour of proposals to assemble sites and buildings for redevelopment in modern retailing formats could be detrimental to the character of the Architectural Conservation Area.
- Objectives relating to Wicklow town centre that promote infill and backland development of properties could be detrimental to the integrity of archaeological sites within the Zone of Archaeological Heritage.
- Objectives for the development of Clermont as a College Campus and objectives for the development of a road in this area may compromise the character and setting of the protected structure, archaeological sites and natural heritage, including protected trees, river systems etc.
- Objectives for the promotion of increased tourism and recreation can result in damaging effects on natural and built heritage.

All potentially damaging effects on cultural heritage can be successfully mitigated by the following environmental objectives of the Plan: AH1-AH3, RPS1-RPS6, ACA1-ACA2, VA1-VA3, AR1-AR3, RC2 and TR7.

10.7 Landscape

Overall, the SEA matrix indicates that the Plan has a positive or neutral impact on the EPOs to protect scenic landscapes. The SEA process identified that the following objectives of the Plan required mitigation in order to ensure achievement of the EPOs:

- The Convent Lands have been zoned for mixed use development including residential and community and education. The promotion of development on this site could be detrimental to the EPO to protect the visual amenity of this highly visible site.
- Objectives for the development of renewable energy, particularly wind energy, and telecommunications and electricity infrastructure could be detrimental to visual amenity.

In order to address the above issues, the SEA process introduced an additional objective – OS10, to safeguard the scenic amenity of the Convent Lands. In addition, objectives E1 and ICT1 has been amended to ensure that proposals for energy and telecommunications infrastructure have due regard to the protection of scenic amenity. In addition, the re-zoning of land as 'Strategic Land Bank' protects the visual amenity of higher and more visible lands.

10.8 Climate

Overall, the SEA matrix indicates that the Plan has a positive or neutral impact on the EPOs to minimise greenhouse gas emissions.

Notwithstanding this, the SEA assessment did identify that objectives for the development of new roads and transportation infrastructure is likely to have the combined effect of increasing private vehicular use which consequently increases greenhouse gas emissions. While no environmental objective can mitigate these effects, it should be noted that the Plan has removed objectives for new roads in AA4, AA7 and AA8 and this has an overall beneficial effect on the achievement of the EPOs. In addition, the Plan promotes a compact urban form which facilitates mixed use, 'walkable' neighbourhoods, with increased promotion of public transport, walking and cycling facilities. This land use pattern reduces dependency on private vehicular use and contributes to the reduction in greenhouse gases.

Objectives for the development of employment and enterprise promote industrial activities that could result in noxious emissions. The Plan includes environmental objectives which successfully mitigate potentially damaging effects on the environment. Key objectives in this regard include AE1, AE2 and AE3.

10.9 Air Quality

The environmental assessment of the Plan for the achievement of good air quality yielded the same results as the test for the environmental objectives to minimise greenhouse gas emissions.

10.10 Soils

Overall, the SEA matrix indicates that the Plan has a neutral or beneficial impact on the EPOs to minimise greenhouse gas emissions. Key to the achievement of this objective is the promotion of a compact settlement form, which re-zones surplus peripheral lands as Strategic Land Bank and which maximises the use of the existing built environment. This, in combination with policies that protect designated and non-designated natural heritage areas, has an overall effect of positively contributing to the quality of soils in the plan area.

Potentially harmful effects are mitigated by the environmental objectives SL1-SL4, which were introduced through the SEA process.

10.11 Assessment of Likely Environmental Effect of Wicklow Town-Rathnew Development Plan 2013-2019

Taking account of the above assessment, it is concluded that the overall effect of the Wicklow Town - Rathnew Development Plan 2013-2019 on the environment is likely to be beneficial or neutral. Any likely significant adverse effects on the environment have been prevented, reduced or offset. An extensive list of environmental objectives that mitigate the potential adverse effects of the Development Plan on the environment are set out in Section 9 of the Plan.

11. MONITORING

The SEA Directive requires that the significant environmental effects of the implementation of Development Plans are monitored. Monitoring enables, at an early stage, the identification of unforeseen adverse effects and the undertaking of appropriate remedial action. In addition, monitoring can also play an important role in assessing whether the Development Plan is achieving its environmental objectives and targets – measures which the Development Plan can help work towards – whether these need to be re-examined and whether the proposed mitigation measures are being implemented. Monitoring is based on the SEO indicators and targets. These indicators enable quantitative measurement of trends over time.

The methodology used in the development of the monitoring programme for the Wicklow - Rathnew Development Plan 2013-2019 is based on the use of indicators and targets, and the assignment of responsibilities. It also includes intervention in the event of an unforeseen occurrence.

Wicklow County Council and Wicklow Town Council are responsible for the implementation of the monitoring programme in relation to the Plan. The minimum requirement for overall SEA reporting is every two years, in parallel with the review period of the Plan. Much of the indicator information required is already being actively collected and reported at a level sufficient to meet the needs of this Plan.

The tables set out in Section 6 of the Environmental Report set out the monitoring programme for the Plan. The indicators used for the monitoring programme are at a level which is relevant to the Plan, and where information is collated and reported on by a variety of Government agencies including EPA, OPW, National Parks and Wildlife Services, NTA and different sections within Wicklow County Council and Wicklow Town Council, including the Heritage Offices, water services, roads and environment sections.

SECTION 1: INTRODUCTION

1.1 INTRODUCTION AND STATUTORY BACKGROUND

The Strategic Environmental Assessment (SEA) of the Wicklow Town - Rathnew Development Plan 2013-2019 has been carried out by Wicklow County Council and Wicklow Town Council in compliance with the provisions of the SEA Directive (Directive 2001/42/EC) and those regulations transposing the Directive into Irish Law, i.e. Planning and Development (Strategic Environmental Assessment) Regulations 2004 (S.I. No.436 of 2004), as amended by Planning and Development (Strategic Environmental Assessment) (Amendment) Regulations 2011 (S.I. No. 201 of 2011).

As required by Article 13E of Regulations, this Environmental Report identifies, describes and evaluates the likely significant effects on the environment of implementing the Plan, and sets out reasonable alternatives for the preparation of the Plan, taking account of the objectives and geographical scope of the plan. The Report includes the information as set out in Schedule 2B of the Regulations and takes account of submissions received during the 'scoping' consultation.

Schedule 2B sets out the information that is required to be contained in an Environmental Report. Accordingly, this Environmental Report includes:

- an outline of the contents and main objectives of the plan and relationship with other relevant plans or programmes;
- the relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan;
- the environmental characteristics of areas likely to be significantly affected;
- any existing environmental problems which are relevant to the plan including, in particular, those relating to any areas of a particular environmental importance, such as areas designated pursuant to the Birds Directive or Habitats Directive;
- the environmental protection objectives, established at international, European Union or national level, which are relevant to the plan and the way those objectives and any environmental considerations have been taken into account during its preparation;
- the likely significant effects on the environment, including on issues such as biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above factors;
- the measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan;
- an outline of the reasons for selecting the alternatives dealt with, and a description of how the assessment was undertaken including any difficulties (such as technical deficiencies or lack of know-how) encountered in compiling the required information;
- a description of the measures envisaged concerning monitoring of the significant environmental effects of implementation of the plan; and
- a non-technical summary of the information provided under the above headings.

The Report includes information that may be reasonably required, taking into account:

- current knowledge and methods of assessment,
- the contents and level of detail in the Plan,
- the stage of the Plan in the decision-making process, and
- the extent to which certain matters are more appropriately assessed at different levels in the planning process in order to avoid duplication of assessment.

In undertaking the SEA of the Plan, regard has been paid to the 'Guidelines for Regional Authorities and Planning Authorities on the Implementation of SEA Directive (2001/42/EC): Assessment of the Effects of Certain Plans and Programmes on the Environment, 2004.'

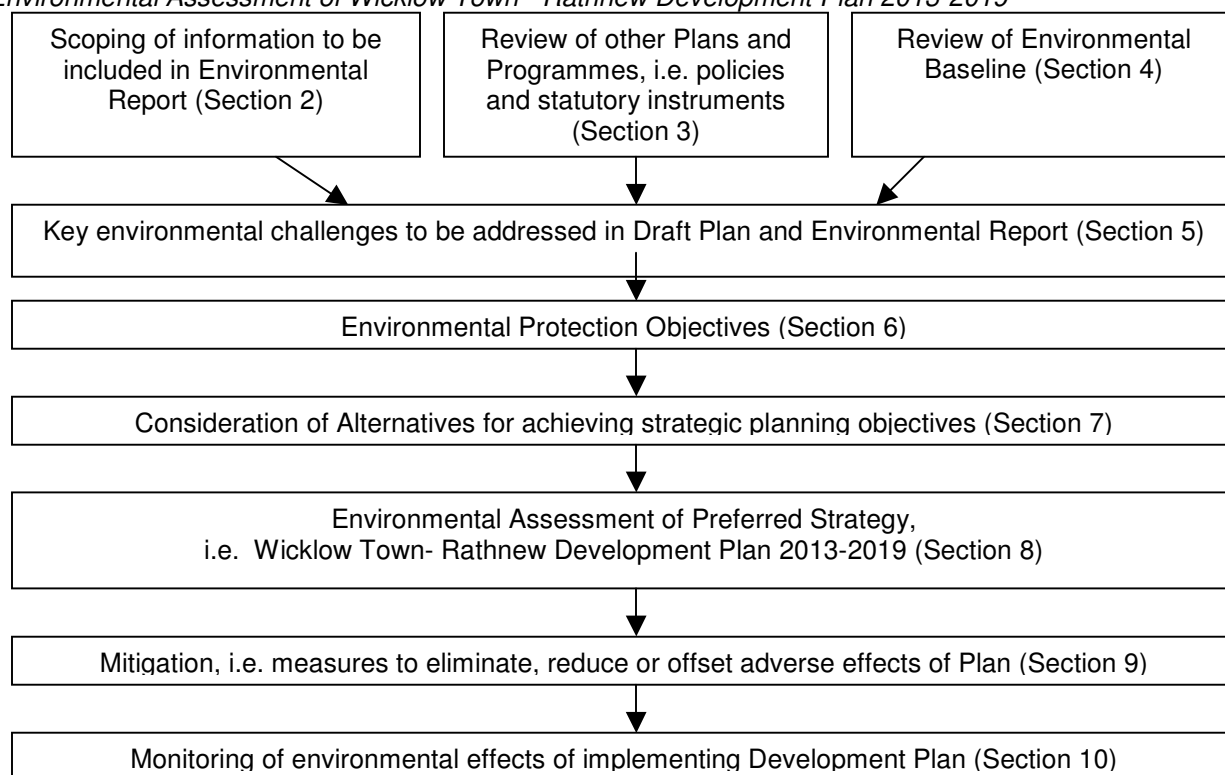
The SEA has been carried out by the Forward Planning Section of Wicklow County Council. It is considered that this Section, with the support of the Wicklow County Council Heritage Officer, and other sections, including the water services, environment and roads sections of the Council, has the competent expertise to ensure the satisfactory completion of the SEA.

The SEA and plan-making processes have been informed from an early stage, by the requirements of the Habitats Directive and Floods Directive, in terms of ensuring protection of Natura 2000 sites and ensuring that flood risk is appropriately addressed in plan making decisions.

1.2 METHODOLOGY FOR THE PREPARATION OF THE ENVIRONMENTAL REPORT

The Environmental Report includes an identification, description and evaluation of the likely significant effects on the environment of implementing the Plan. The following diagram describes the steps that have been undertaken in the preparation of the Environmental Report. Each stage of the methodology is dealt with under the different sections of the Environmental Report.

Figure 1.1: Methodology for the preparation of Environmental Report for the Strategic Environmental Assessment of Wicklow Town - Rathnew Development Plan 2013-2019



1.3 DESCRIPTION OF WICKLOW TOWN- RATHNEW DEVELOPMENT PLAN 2013-2019

The Wicklow Town-Rathnew Development Plan 2013-2019 applies to the administrative area of Wicklow Town Council and to that part of the administrative area of Wicklow County Council which forms the environs of Wicklow Town, including the village of Rathnew. The Development Plan sets out the overall strategy for the proper planning and sustainable development of the area and consists of a written statement and plan indicating the development objectives for the area.

The overall strategy for the plan area is set out in the Vision and Core Strategy for the plan area, as set out in Chapter 2 of the Development Plan.

1.3.1 Vision

The Vision for the Development Plan is:

For Wicklow Town, Environs and Rathnew to be a prosperous and growing community in the garden county of Wicklow, offering a unique and high quality of life by providing for a sustainable and local work/life balance; within a quality environment for all who live, work and visit the area.

The Vision is to be implemented by the following key strategic objectives for the plan area:

- Strengthening and consolidating Wicklow Town as the County town to ensure that it remains the economic and social hub of the community by making the town a more attractive place to live and do business, by improving the public realm, by encouraging infill development and brownfield regeneration, by protecting the built and natural heritage and by improving movement throughout the town. While protecting the character and uniqueness of the Main Street, it is necessary to provide for the development of Wicklow Town so as to provide for the requirements of modern retailers and business. Identifying suitable locations within the plan area that are deliverable within the time scale of this plan to cater for major retailers' needs is crucial for Wicklow Town to grow as a Primary Growth Centre and County Town.
- Re-enforcing and protecting the identity of Rathnew as a separate stand alone entity in the wider settlement; by providing local services in an attractive, thriving village and to facilitate the potential for innovation, enterprise and education at Clermont Campus for the benefit of the local and regional community
- Integrating land use planning and transport planning, with the dual aim of reducing the distance that people need to travel to work, shops, schools and places of recreation and social interaction and facilitating the delivery of improved public transport
- To enhance existing housing areas and to provide for high quality new housing at appropriate locations and to ensure the development of a range of house types, sizes and tenures in order to meet the differing needs of all in society and to promote balanced communities
- Cultivating the port and manufacturing employment tradition in the settlement while facilitating a broad range of enterprise development thereby avoiding dependence on a specific sector
- To recognise and protect through policies of the Plan, the unique character, built heritage, seaside location, maritime history, natural environment of the area, ensuring that this heritage can continue to contribute positively to the overall quality of life, recreation and tourism role of the settlement and by developing existing traditional coastal and estuarine walks.
- Ensuring that the quality and setting of the natural environment is protected and strengthened through the Plan so that maximum associated ecosystem services in terms of flood attenuation, biodiversity, quality of life, tourism and recreation may be realised for the benefit of the local and wider community.
- Supporting social and community development and in particular, to link the development of new housing to the delivery of necessary community facilities, including schools, playing pitches, health facilities and other community services
- To recognise the needs of all society and ensure that all strategies, policies and objectives do not inhibit or exclude any individuals or groups from being part of their community's development
- Maximising the use of existing infrastructure and targeting new investment in infrastructure to that which can generate the highest returns to the community.
- To address the climate change challenge as a plan dynamic, directly in the areas of flooding and renewable energy and indirectly through integrating climate change and sustainable development into all aspects of plan policy and objectives.

1.3.2 Core Strategy

The core strategy shows that the development objectives in the Development Plan are consistent, as far as practicable, with national and regional development objectives set out in the National Spatial Strategy and Regional Planning Guidelines.

Population

The Core Strategy provides for the future population growth of the plan area through population targets. The Development Plan makes provision for the achievement of these targets through ensuring that sufficient zoned and serviced land is available for housing, employment and social uses. The following table sets out population targets for the plan period:

Table 1.1: Population Targets for Wicklow Town, Environs and Rathnew 2011-2022

Year	Population
2006	11,919
2011	13,468 EST
2016	19,000
2019	21,500
2022	24,000

Housing

In order to achieve the above targets, the plan makes provision for the zoning of land for 5,699¹ new housing units, in two phases:

Phase 1 2013-2019 3,980 units

Phase 2 Post 2019 1,719

It is the development strategy of the plan that lands closest to the core of Wicklow Town and Rathnew Village shall be considered first for development². Where permission is sought for development on other lands designated for significant development (as shown on Map 2.1 'Core Strategy'), permission will only be considered during the lifetime of the plan if:

- Lands closer to the core area have been substantially developed and have not delivered the number of housing units envisaged, or
- Some barrier is impeding the development of lands closest to the core areas, or
- Lands closer to the core areas are not being released to the market.

Under the previous Development Plan and Local Area Plans for the area, there was zoned and undeveloped land to provide for 9,587 units. Given, the housing requirement of an additional 5,662³ units up to 2022, the three previous plans provided for a significant surplus of zoned land. As set out in the 'Core Strategy' guidelines issued by the Department of the Environment, Heritage and Local Government, surplus zoned land should be de-zoned, re-zoned or retained in a 'strategic land reserve' for future use.

This Plan provides for a combination of the first 2 options, whereby surplus land is zoned 'SLB Strategic Land Bank: To provide a suitable land bank for future development of the settlement'. The description of the land use zoning objective states "(g)generally any development proposals within the lifetime of the plan will be considered under the Wicklow County Development Plan rural objectives".

Employment

¹ Refer Table 2.5, Core Strategy

² These lands are generally located within 750m (as the crow flies) of the centre of Rathnew Village and 1500m of the centre of Wicklow Town-Fitzwilliam Square (as shown on Map 2.1 Core Strategy)

³ Notwithstanding the housing requirement of an additional 5662 units, the members amended the proposed Plan and adopted a Plan that accommodates 5699 units.

Under the existing Development Plan and Local Area Plans for the area, there is zoned and undeveloped employment land to provide for 31,000 new jobs. Having regard to the above growth targets, the role of the settlement, and assumptions regarding the labour force participation rate and jobs ratio, the Core Strategy indicates that **9,400 jobs** would be required to be available in the settlement in 2022. The employment strategy focuses on ensuring that these jobs are provided at suitable locations, focussing in particular at the following locations – Wicklow town centre and Rathnew village centre, the Murrough and other lands serviced by the new Port Access Road, Clermont Campus and Lands adjacent to the M11 interchanges which provide safe access to primary routes.

Retail

The retail policies and objectives set out in the Plan aim to re-inforce Wicklow Town's status as a 'Level 2' County Town retail centre and Rathnew's status as a 'Level 4' local centre.

Retail zonings in the Plan should reflect the floorspace growth allocations set out in the County Retail Strategy which indicates that growth in convenience floorspace of the order of 3,000-5,000m² is required, along with growth of 7,000-15,000m² of comparison floor space up to 2016. Retail objectives and zoning provisions will however reflect that this plan extends beyond 2016.

Infrastructure

The Core Strategy describes existing transportation and water services infrastructure. In general, the Strategy aims to maximise the use of existing infrastructure within the plan area through ensuring that land which is zoned is adequately served by roads, public transport and water services infrastructure.

SECTION 2: SCOPE OF INFORMATION TO BE INCLUDED IN THE ENVIRONMENTAL REPORT

The initial stage of the SEA process involves the scoping of the contents of the Environmental Report. Scoping is undertaken to ensure that the relevant environmental issues are identified, allowing them to be addressed appropriately in the Environmental Report and Plan.

As per the Planning and Development (SEA) Regulations 2004 (as amended), the planning authority is required to consult with 'environmental authorities' (statutory consultees) on the scope and level of detail of the information to be included in the Environmental Report. The statutory consultees include the following:

- Environmental Protection Agency (EPA),
- Minister for the Environment, Community and Local Government (DoECLG),
- Minister for Agriculture, Marine and Food (DAMF),
- Minister for Communications, Energy and Natural Resources, where it appears there might be a significant effect on fisheries or the marine environment,
- Minister for Arts, Heritage and Gaeltacht Affairs (DoAHG), where it appears there might be significant effects in relation to architectural or archaeological heritage or to nature conservation, and
- any adjoining planning authority whose area is contiguous to the area of a planning authority which prepared the Plan.

In July 2011, the statutory consultees were invited, over a four week period, to make a submission or observation. In line with best practice, a Scoping Report was prepared by the planning authority to facilitate the consultation process.

Submissions in respect to the scoping process were received from EPA, Department of Arts, Heritage and the Gaeltacht and Inland Fisheries Ireland (through DCENR). Key observations made in these submissions include the following:

- Plan to include objectives which ensure that a safe, reliable and effective water services infrastructure is put in place to service the existing future development needs of the settlement;
- Plan to include objectives for the protection of architectural heritage, including structures listed on the Record of Protected Structures (RPS) and the National Inventory of Architectural Heritage (NIAH);
- Plan to include objectives for the protection of natural heritage, in particular the protection of designated and non-designated sites;
- Plan to include objectives which contribute to the achievement of objectives as set out in the 'Eastern River Basin District Management Plan 2009-2015';
- Carry out a flood risk assessment in accordance with the 'Guidelines for Flood Risk Management' (DoEHLG and OPW, 2009);
- Carry out screening for Appropriate Assessment; and
- Ensure Plan includes objectives for the protection of riparian habitats, particularly along the River Vartry which is an EU designated salmonid system.

The submissions also included recommendations regarding the preparation of Environmental Protection Objectives (EPOs) for the Environmental Report. Key recommendations in this regard include the following:

- biodiversity EPOs to relate to habitats and species both within and outside of designated sites, and should aim to achieve relevant biodiversity targets; and
- water EPOs should have regard to the objectives of the 'Eastern River Basin District Management Plan 2009-2015' and should ensure the protection of protected species.

A consideration of the matters raised in the above submissions was undertaken in the 'Manager's Report on the Pre-Draft Consultations' (October 2011). In this report, the Manager recommended that the matters raised in the consultees' submissions be addressed and that their recommendations be incorporated in the preparation of the Plan and associated Environmental Report. Accordingly, the objectives of the Plan and the EPOs of the Environmental Report have been prepared in accordance with the above key recommendations.

SECTION 3: RELATIONSHIP OF THE WICKLOW TOWN - RATHNEW DEVELOPMENT PLAN 2013-2019 WITH OTHER PLANS AND PROGRAMMES

The 'Wicklow Town- Rathnew Development Plan 2013-2019' sits within a hierarchy of International, European, national, regional and local planning policies and statutory instruments. These policies and instruments are required to be taken into account in the development of objectives for the Plan and Environmental Protection Objectives for the Environmental Report. A list of these policies and instruments are set out in the following tables.

Table 3.1: Relationship of the 'Wicklow Town - Rathnew Development Plan 2013-2019' with key International and European policies and statutory instruments

Policy/ Statutory Instrument	Summary of Key Objectives
Kyoto Protocol	Internationally agreed targets to alleviate the impacts of climate change and reduce global emissions of Green House Gases (GHGs).
Nagoya Protocol – Strategic Plan for Biodiversity 2011-2020	Internationally agreed targets for the protection of biodiversity.
EU SEA Directive	Under the SEA Directive, the Development Plan requires an SEA. The Development Plan must take into account protection of the environment and sustainable planning.
EU Habitats Directive	Protects animal and plant species and 'habitat types' which are of European importance.
EU Birds Directive	Protection and conservation of bird species.

EU Water Framework Directive	Aimed at improving the water environment. Member states must aim to achieve 'good' status in all water bodies by 2015.
EU Groundwater Directive	Objective to protect groundwater bodies. Developed in response to Article 17 of the Water Framework Directive.
EU Drinking Water Directive	Objective to protect the health of consumers in the EU and to make sure the water is wholesome and clean.
EU Bathing Water Directive	To ensure good bathing water quality.
EU Floods Directive	To reduce and manage the risk that floods pose to human health, the environment, cultural heritage and economic activity.
EU Urban Waste Water Treatment Directive (91/271/EEC) as amended by 98/15/EEC Urban Wastewater Treatment Directive	Aimed at protecting the environment from the adverse effects of urban wastewater discharges and discharges from certain industrial sectors.
EU Shellfish Waters Directive	Concerns the quality of shellfish waters and applies to those waters designed as needing protection or improvement in order to support shellfish life and growth.
EU Freshwater Fish Directive	Designates surface waters for protection and improvement to support fish populations.
EIA (Environmental Impact Assessment) Directive	Requires member states to carry out assessments of the environmental impact of certain public and private projects before they are allowed to proceed.
EU Seveso Directive	To prevent major accidents involving dangerous substances.
EU Directive on Ambient Air Quality and Cleaner Air for Europe (CAFE)	Sets out air quality standards and obligations relating to fine particle matter.
EU Pesticides Directive	To control the storage, use and disposal of pesticides to minimise risk to health and environment from their usage and to include measures which relate to soil management strategies in land use planning.
EU Directive on the Energy Performance of Buildings (EPBD)	Aims to improve energy performance of residential and non-residential buildings.
EU Renewables Directives	Promotes the use of energy from renewable sources, for the achievement of the EU's 20% renewable energy target by 2020.
EU Waste Framework Directive, including Waste Directive 75/442/EEC	It provides for a general framework of waste management requirements in the EU.
EU Landfill Directive	To prevent or reduce as far as possible negative effects on the environment from landfill.
EU IPPC Directive	To minimise pollution from various industrial activities throughout the EU.
EU Nitrates Directive	To reduce water pollution caused or induced by nitrates from agricultural sources
EU Environmental Noise Directive	Deals with the assessment and management of environmental noise. This Directive applies to noise from industrial activity and from road, rail and air traffic. It does not apply to domestic noise.
The European Landscape Convention (Florence 2000)	To promote landscape protection, management and planning and to organise European co-operation on landscape issues.
European Commission White Paper on Adapting to climate change: Towards a	Sets out a framework to reduce the EU's vulnerability to the impact of climate change.

European Framework for Action (COM(2009)147)	
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Table 3.2: Relationship of the 'Wicklow Town - Rathnew Development Plan 2013-2019' with key national policies and statutory instruments

Policy/ Statutory Instrument	Summary of Key Objectives
Planning and Development Act 2000 (as amended), and Planning and Development Regulations 2001 (as amended)	Primary and secondary legislation prescribing the processes and procedures that form the Irish planning code.
European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 S.I. 435 of 2004 and Planning and Development (Strategic Environmental Assessment) Regulations 2004 S.I. 436 of 2004, as amended by Planning and Development (SEA) (Amendment) Regulations 2011 S.I. 201 of 2011	Transposes EU Directive 2001/42/EC into Irish Law
National Development Plan 2007-2013	€184 mil infrastructural investment plan to build a prosperous country for Ireland's population.
National Spatial Strategy 2002-2020	20-year national planning framework to achieve more balanced social, economic and physical development across Ireland based on a strategy of gateways and hubs.
National Climate Change Strategy 2007-2012	Sets out measures for Ireland's reduction in emissions.
Transport 21 2006-2015	€34 billion transport capital investment framework under the NDP to address past investment backlogs and continuing growth in transport demand.
Department of Transport 2020 Vision – Sustainable Travel and Transport (2009)	Transport policy for Ireland for the period 2009-2020. Sets out how the vision of a sustainable travel and transport system can be achieved
Government White Paper – Delivering a Sustainable Energy Future for Ireland 2007-2020	Describes the actions and target for the energy policy framework up to 2020.
National Biodiversity Plan: Actions for Biodiversity 2011-2016	Objective to promote the conservation and sustainable use of biodiversity.
National Energy Efficiency Action Plan 2009-2020	Sets out the government's actions to achieve 20% energy efficiency saving.
Wildlife Act 1976 and Wildlife (Amendment) Act 2000	To provide for the protection of flora and fauna.
EU (Natural Habitats) Regulations, 1997 (S.I. No.94 of 1997) and amendments S.I. No.233 of 1998 and S.I. 378 of 2005	Transposes EU Habitats Directive 95/43/EC into Irish Law.
Water Services Act 2007	Focuses on management of water 'in the pipe' as opposed to river water quality etc.
Water Services (Amendment) Bill 2011	To regulate wastewater discharges from all homes which are not connected to the public sewer network.
European Communities (Water Policy) Regulations 2003 European Communities Environmental Objectives (Surface Waters) Regulations 2009 EC Environmental Objectives (Groundwater)	Transposes Water Framework Directive and Groundwater Directive into Irish Law.

Regulations 2010, and Amendment Regulations 2011	
European Communities (Drinking Water) Regulations 2000 and 2007	Transposes EU Water Framework Directive (2000/60/EC) and EU Drinking Water Directive 98/83/EC into Irish Law.
EC (Quality of Salmonid Waters) Regulations 1988	Transposes Freshwater Fish Directive (78/659/EEC) into Irish Law.
Bathing Water Regulations 2008 and 2011	Transposes EU Bathing Water Directive 76/160/EEC into Irish Law.
Waste Water Discharge (Authorisation) Regulations 2007, and Amendment Regulations 2010	Provide for the authorisation by the EPA of discharges from local authority Waste Water Treatment Systems that are released to all types of receiving waters. In the case of discharges from smaller systems, certificates will apply instead of licences.
Urban Wastewater Treatment Regulations 2001	Transposes Urban Waste Water Treatment Directive into Irish Law.
European Communities (Quality of Shellfish Waters) Regulations 2006 and European Communities (Quality of Shellfish Waters) (Amendment) Regulations 2009	Transposes Shellfish Water Directive into Irish Law.
Water Conservation Regulations 2008	Provides for the conservation of water.
Nitrates Regulations 2006 and EC (Good Agricultural Practice for the Protection of Waters) Regulations, 2007, 2009, 2010 Waste Management (Use of Sewage Sludge in Agriculture) Regulations 1998, as amended 2001	Provide statutory support for good agricultural practice to protect waters against pollution from agricultural sources and give further effect to several EU Directives.
Environmental Noise Regulations 2006 (S.I.140 of 2006)	Transposes EU Directive 2002/49/EC into Irish Law
Air Quality Standards Regulations 2011 (S.I. No. 180 of 2011)	Transposes the Ambient Air Quality and Cleaner Air for Europe (CAFE) Directive into Irish Law.
Sustainable Residential Development in Urban Areas – Guidelines for Planning Authorities 2009	Objective to produce high quality sustainable development which includes the integration of schools, community facilities, employment, transport and amenities in a timely and cost-effective manner.
Best Practice Urban Design Manual	Companion document on best practice implementation of 'Sustainable Residential Development in Urban Areas'.
Sustainable Rural Housing Development – Guidelines for Planning Authorities 2005	Guidelines for the sustainable development of rural areas, with a focus on housing need.
Flood Risk Management – Guidelines for Planning Authorities 2009	Aims to integrate flood risk management in to the planning process.
Architectural Heritage Protection – Guidelines for Planning Authorities 2004	Practical guide for planning authorities to deal with the provisions of Part IV of the Planning and Development Act.
Spatial Planning and National Roads – Guidelines for Planning Authorities 2012	Advice relating to development at locations on or in the vicinity of national roads.
Landscape and Landscape Assessment – Guidelines for Planning Authorities 2000	Guidance on landscape appraisal.
Strategic Environmental Assessment – Guidelines for Planning Authorities 2004	Guidance relating to the implementation of SEA Directive (2001/42/EC).
Telecommunications Antennae and Support Structures – Guidelines for Planning Authorities	Guidance relating to appropriate locations for telecommunications structures.

Tree Preservation – Guidelines for Planning Authorities	Guidance relating to Tree Protection Orders.
Wind Energy Development – Guidelines for Planning Authorities	Guidance relating to the appropriate locating of wind energy structures.
Appropriate Assessment of Plans and Projects in Ireland – Guidance for Local Authorities 2010	Guidance relating to Appropriate Assessment – for the protection and conservation of Natura 2000 sites.
EPA Code of Practice on Wastewater Treatment and Disposal Systems serving Single Houses (October 2009),	Guidance regarding the assessment of on-site wastewater disposal systems for single houses.
Environmental Protection Agency (EPA), Inland Fisheries and National Roads Authority (NRA) Guidelines as appropriate	Guidance produced by stakeholders involved in the promotion of sustainable planning and the protection of the environment.
Record of Monuments and Places	Record of archeologically important monuments and places, protected under Section 12 of the National Monuments (Amendment) Act (1994).
National Inventory of Architectural Heritage (NIAH).	Survey of architecturally important heritage, undertaken by Department of Arts, Heritage and the Gaeltacht.

Table 3.3: Relationship of the 'Wicklow Town - Rathnew Development Plan 2013-2019' with key regional policies and statutory instruments

Policy/ Statutory Instrument	Summary of Key Objectives
Regional Planning Guidelines for the Greater Dublin Area 2010-2022	To provide a long-term strategic planning framework for the development of the Greater Dublin Area.
Retail Strategy for the GDA 2008-2016	Aims to set out a co-ordinated sustainable approach to the assessment and provision of retail use within the Greater Dublin Area.
Greater Dublin Area Transport Strategy (National Transport Authority) 2011	To identify areas of accessibility within the Dublin Region and the most appropriate locations for intensification.
Eastern River Basin Management Plan 2009-2015 and associated Programme of Measures	Plan for the implementation of the EU Water Framework Directive.
Greater Dublin Strategic Drainage Study 2005	Identifies the policies, strategies and projects for the development of a sustainable drainage system for the Greater Dublin Region.
Water Supply Project Dublin Region	Study determining a new major water source to meet projected demand in the long term.
Catchment wide Flood Risk Assessments	Requirement of the EU Floods Directive.

Table 3.4: Relationship of the 'Wicklow Town - Rathnew Development Plan 2013-2019' with key local policies and statutory instruments

Policy/ Statutory Instrument	Summary of Key Objectives
Wicklow County Development Plan 2010-2016	Strategy for the proper planning and sustainable development of County Wicklow up to 2016.
Wicklow County Council Development Contribution Scheme, 2008	Capital contribution scheme for development undertaken in County Wicklow, prepared in accordance with Section 48 of the Planning and Development Act 2000 (as amended).
Wicklow Town Council Development Contribution Scheme, 2008	
Outlook 2002-2012 Wicklow County	Strategic Plan for social, economic and cultural

Development Board Strategic Plan	development of County Wicklow up to 2012.
Wicklow County Waste Management Plan 2006-2011	A strategy for the recovery, recycling and disposal of waste arising in County Wicklow. The Plan promotes a hierarchy of preferential modes of waste management such as, prevention, minimisation, reuse and recycling, disposal with energy recovery and disposal of residual waste.
Wicklow County Water Services Investment Programme 2010-2012	Programme of investment on water services infrastructure in County Wicklow.
County Wicklow Outdoor Recreation Strategy 2009-2013	Strategy for the development and management of outdoor recreation in County Wicklow.
County Wicklow Biodiversity Action Plan 2010-2016	A strategy for increasing our understanding and appreciation of biodiversity in the county along with measures for enhancing the protection of biodiversity.
County Wicklow Heritage Plan 2009-2014	Objective for the conservation of natural, built and cultural heritage in County Wicklow and to increase awareness and enjoyment of it among all in Wicklow.
County Wicklow Wetland Survey (WCC/Faith Wilson and Peter Foss, 2011)	Survey of wetland habitats in County Wicklow.
Wicklow Town River Analysis (WCC/ Barry and Partners, 2004)	An analysis of the potential for flooding along Rathnew, Burkeen and Marlton Streams in Wicklow Town.
Wicklow Town Public Realm Plan (WCC/Heritage Council, 2008)	Includes proposals for a series of initiatives for the improvement of the town's natural and urban public spaces and landmarks.
The Murrough Coastal Protection Study (WCC/RPS, 2007)	A coastal protection study for the Murrough area. The study includes predictions on the level of coastal erosion in the area and set out mitigation proposals.
Wicklow Urban Habitat Mapping (WCC/Heritage Council, 2008)	The project identifies locally important biodiversity areas in Wicklow Town.
Wicklow Town Shop Front Study (2010)	Includes an inventory and guidance notes for the repair and renewal of shopfronts in the town centre.
Wicklow and Environs Integrated Framework Plan for Land Use and Transportation (IFPLUT) 2003	Sets out detailed land use and transportation proposals for the future growth of the Wicklow development centre, having particular regard to land-use patterns that compliment local public transport, walking and cycling.

SECTION 4: CURRENT STATE OF THE ENVIRONMENT

This section will provide a description of the environmental characteristics of the plan area, including factors such as population and human health, biodiversity, flora and fauna, water resources, material assets, flooding, cultural heritage, climate, air quality and soil. In addition, an overview of the overall level of environmental sensitivity of the plan area is provided in a Cumulative Environmental Assessment. The final part of this section sets out the 'do-nothing' scenario, which is an estimate of how current environmental conditions would change over time without implementation of the plan.

4.1 POPULATION AND HUMAN HEALTH

4.1.1 Population

The census for 2006 showed that the population of the Wicklow area was 11,919 (comprising 6,930 in Wicklow Urban area, 3,140 in Wicklow Environs and 1,849 in Rathnew). Figures from the

2011 Census indicate that the population of the plan area has increased to 13,468. The Wicklow County Settlement Hierarchy includes targets for the future growth of the area. The Hierarchy indicates that the Wicklow/Rathnew settlement is to grow to target population of 19,000 by 2016 and 24,000 by 2022.

4.1.2 Housing and Employment

In order to be able to meet population growth allocations, the plan must make provision for growth in housing stock. This will involve ensuring that there is sufficient zoned and serviced land available for the construction of new housing. While the duration of the Plan is only until 2019, in accordance with current guidance, the plan will provide for growth until 2022.

The existing three plans provide sufficient zoned and undeveloped land to provide 9587 houses. Given the housing requirement of an additional 5662 units up to 2022, there is clearly a surplus of zoned housing land in the plan area.

In addition to providing sufficient housing to meet projected growth, the plan is required to ensure that sufficient land is zoned for employment uses in order to aid in the delivery of job creation projects. Based on assumptions regarding growth, labour force participation and jobs ratio, a total of 9,400 jobs would be required to be available in the settlement in 2022. The existing three plans provide sufficient zoned land for 31,000 jobs.

Taking account of the above, it is clear that the amount of land zoned for residential and employment uses exceeds the requirements of the projections for the plan area.

4.1.3 Human Health

As health is influenced by many factors in the social and built environment including housing, employment status and transport, as well as the impacts of air quality, water quality, flooding and access to green space; good planning can play an important role in promoting a healthy society.

Wicklow is fortunate in that it has a wide variety of housing types, employment sectors, good transport links, good air quality and water quality and access to green space. In addition, the population has access to a range of health facilities which improve the overall health and well being of the population. Of vital importance to health is the level of green space and access to the natural environment. Open space provision can improve level of exercise in a community which can impact on obesity and can improve social interaction and community activities which can contribute to reducing stress-related problems.

4.2 BIODIVERSITY, FLORA AND FAUNA

4.2.1 EU Designated Sites

The study area includes four EU Natura 2000 sites (i.e. Special Areas of Conservation (SAC)⁴ and Special Protection Areas (SPA)⁵ sites). These include the Murrough Wetlands cSAC (Site Code 00249), Wicklow Reef cSAC (Site Code 002274), the Wicklow Head SPA (Site Code 004127) and the Murrough SPA (Site Code 004186). A description of the characteristics of each site and the conservation objectives for each site are set out below. These sites are shown on Figure 4.1.

⁴ Special Areas of Conservation (SACs) are sites designated under EC Directive 92/42/EEC known as the 'Habitats Directive'. This requires the conservation of important, rare or threatened habitats and species (not birds, which are protected by Special Protection Areas) across Europe.

⁵ Special Protection Areas (SPAs) are sites designated under the EC Directive 79/409/EEC, known as the 'Birds Directive', to conserve the habitats of certain migratory or rare birds.

The Murrough Wetlands cSAC

The Murrough is a coastal wetland complex which stretches for 15 km from Ballygannon to the north of Wicklow town, and in parts, extends inland for up to 1 km. A shingle ridge stretches the length of the site and carries the mainline Dublin-Wexford railway. The site supports a number of habitats listed on Annex I of the EU Habitats Directive and a number of bird species listed on Annex I of the EU Birds Directive, as well as a wide range of important migratory birds. There are also many rare plants in the site. This site is of importance as it is the largest coastal wetland complex on the east coast of Ireland. Although much affected by drainage, it still contains a wide range of coastal and freshwater habitats, some of which contain threatened plants. Areas on the site contain a rich invertebrate fauna, including several rarities. It is an important site for both wintering and breeding birds.

The conservation objective for the site is to maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected, i.e. annual vegetation of drift lines, perennial vegetation of stony banks, atlantic salt meadows (*Glauco-Puccinellietalia maritimae*), mediterranean salt meadows (*Juncetalia maritimi*), calcareous fens with *Cladium mariscus* and species of the *Caricion davallianae*, and alkaline fens.

Wicklow Reef cSAC

Wicklow Reef is of high conservation value as it is the only documented example in Ireland of a biogenic reef. Reefs are listed under Annex I of the EU Habitats Directive. Wicklow Reef is situated just to the north of Wicklow Head on the east coast of County Wicklow.

The conservation objective for the site is to maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected, i.e. reefs.

Wicklow Head SPA

Wicklow Head is a rocky headland with extensive exposures of mica-schist. It is situated approximately 3km south of Wicklow Town. The Kittiwake and Black Guillemot populations are of National Importance. The site also supports a pair of breeding Peregrines, a species listed on Annex I of the EU Birds Directive. Ravens nest annually on the cliffs, and the heath.

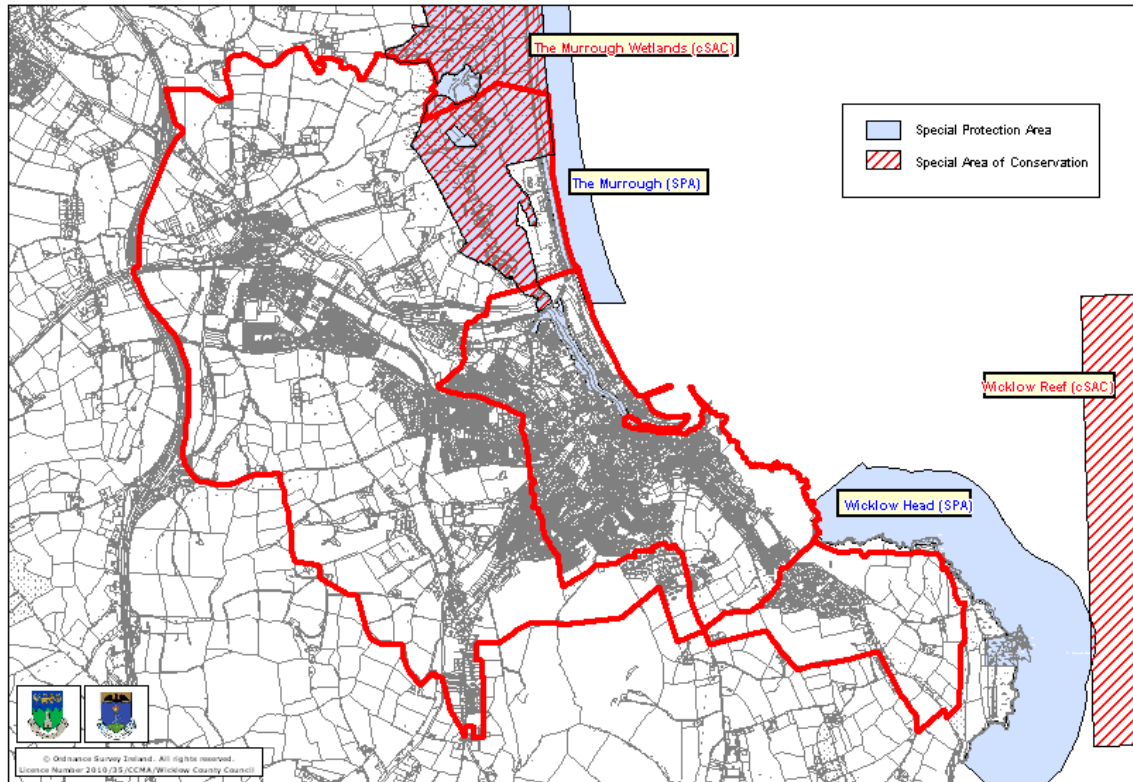
The conservation objective for this site is to maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA, i.e. kittiwake.

The Murrough SPA

The Murrough SPA comprises a coastal wetland complex that stretches for 13km from Kilcoole Station, east of Kilcoole village in the north to Wicklow Town in the south, and extends inland for up to 1 km in places. The regular occurrence of Red-throated Diver, Little Egret, Whooper Swan, Greenland White-fronted Goose, Golden Plover, Little Tern, Sandwich Tern, Shorteared Owl and Kingfisher is of note as these species are listed on Annex I of the E.U. Birds Directive. The site also supports a typical diversity of birds associated with reed swamp, including Reed Warbler, a very localised species in Ireland. The site is also of considerable importance for the wide range of coastal and freshwater habitats that it supports, including several that are listed on Annex I of the E.U. Habitats Directive.

The conservation objective for this site is to maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA, i.e. *anser anser*, *branta bernicla hrota*, *anas Penelope*, *anas crecca*, *sterna albifrons* and wetlands and waterbirds.

Figure 4.1: Natura 2000 Sites



Source: NPWS

4.2.2 Proposed Natural Heritage Areas

Three proposed Natural Heritage Areas (pNHAs)⁶ have been designated for protection in the study area – Wicklow Head pNHA (Site Code 000734), The Murrough pNHA (Site Code 000730) and Wicklow Town pNHA (Site Code 001929). These sites are shown on Figure 4.2.

The environmental characteristics and qualifying interests of Murrough pNHA and Wicklow Head pNHA correspond with those of SPAs and SACs of these areas. The Wicklow Town pNHA comprises two sub-sites – the Leirim River Sub-Site and the Blackcastle Sub-site, each of which contains rare plants protected under the Flora Protection Order 1987.

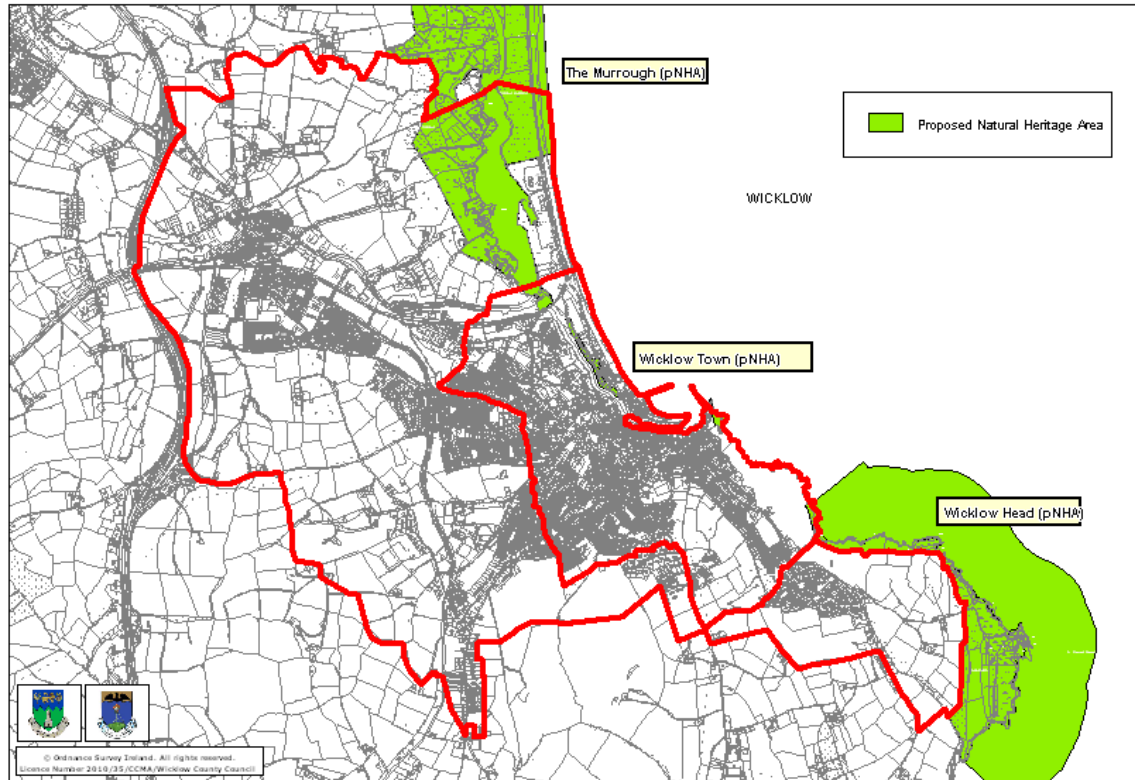
The gravelly bank of the Leirim River supports a community of plants typical of disturbed ground and includes clovers (*Trifolium repens*, *T. dubium*), Ribwort Plantain (*Plantago lanceolata*), Common Fumitory (*Fumaria officinalis*), Yarrow (*Achillea millefolium*), Common Ragwort (*Senecio jacobaea*), Viper's-bugloss (*Echium vulgare*) and Spotted Medick (*Medicago arabica*). The rare Subterranean Clover (*Trifolium subterraneum*) grows among this community.

⁶ All Natural Heritage Areas (NHAs) in County Wicklow are 'proposed' and are protected through the planning legislation and the Wildlife Acts.

Blackcastle is a rocky area adjoining cliffs at the edge of Wicklow town and is also the site of a ruined castle. On the landward side of the cliffs is a grassy area used for amenity purposes. The vegetation is dominated by Red Fescue (*Festuca rubra*). Other species found growing there include Common Bird's-foot-trefoil (*Lotus corniculatus*), White Clover (*Trifolium repens*), and Curled Dock (*Rumex crispus*). Two rare clovers have been recorded growing in this coastal grassland area – Birdsfoot Clover (*Trifolium ornithopodioides*) and Subterranean Clover.

The site is important because of the rare plants it contains. Of particular note is the presence of Subterranean Clover which is unknown from elsewhere in Ireland.

Figure 4.2: Proposed Natural Heritage Areas



Source: NPWS

4.2.3 Wicklow Urban Habitat Mapping

The 'Wicklow Urban Habitat Mapping' project was undertaken in 2008 for the urban area of Wicklow town. The project identifies locally important biodiversity areas, including public parks, areas of railway embankments, and numerous agricultural fields with associated hedgerow systems and small areas of woodland along roadsides and streams. These sites are generally of medium to high conservation value and provide important corridors to link green spaces, further contributing to the enhancement of biodiversity within the town. Sites identified as urban habitats under the Wicklow Urban Habitat Mapping project are shown on Figure 4.3.

Figure 4.3: Urban Habitats in Wicklow Town



Source: Wicklow Urban Habitat Mapping Study, 2008

4.2.4 Tree Protection

Trees that are designated for protection under the previous plans are listed on the following table and are indicated on Figure 4.4. These trees listed for protection have been carried forward into the new Plan.

Table 4.1: Trees Listed for Protection

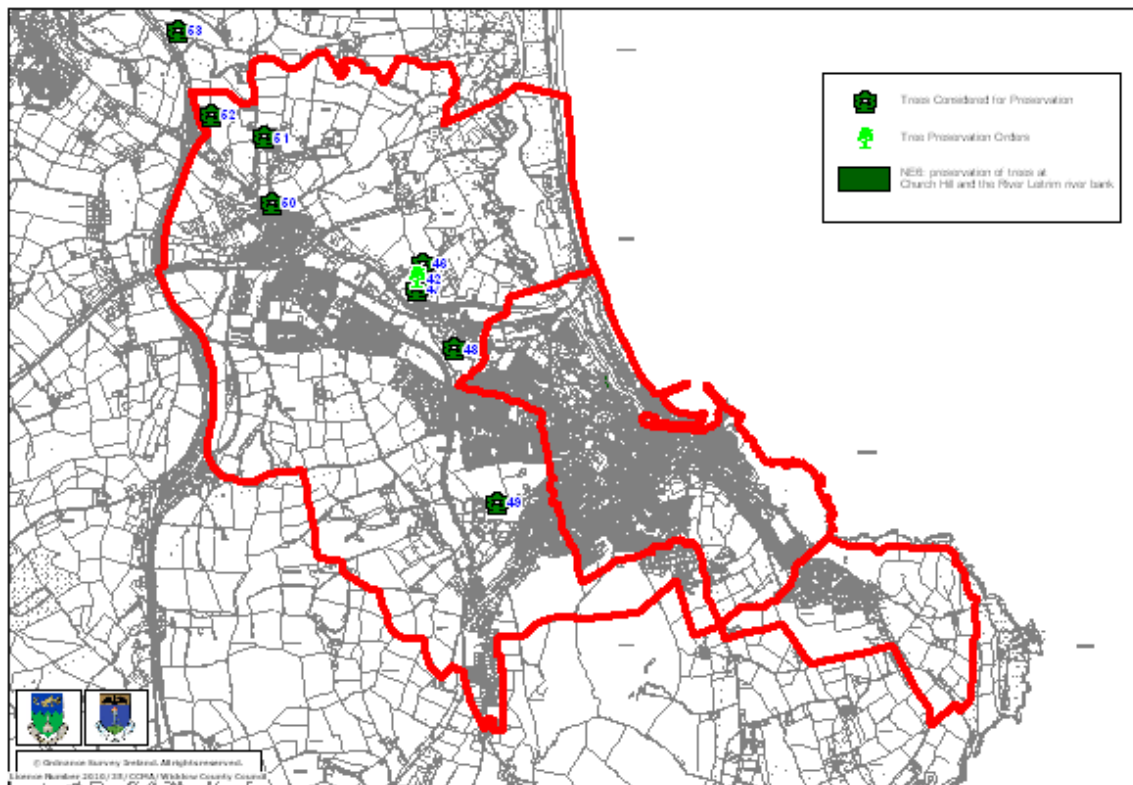
Tree Protection Order		
42	Larch, Scots Pine and Sycamore group of trees	Knockrobin House
Trees Considered for Preservation		
50	Southern boundary of Clermont House, with exception of any felling required for road access as indicated	Rathnew
51	Line of trees at western boundary of Clermont House, with exception of any felling required for road access as indicated (junction with existing N11)	Rathnew
52	Line of trees stretching northwest to southeast, except where future road developments require removal	Lands at Rosanna Lower, Ashford
46	Knockrobin Oak and ornamental species forming the	Knockrobin, Wicklow Town

	avenue of Knockrobin House	
47	A copse of European Larch, Scots pine and Sycamore, on Knockrobin Hill	Kockrobin, Wicklow Town
48	Deciduous woodland overlooking the Wicklow to Rathnew Road	Burkeen
49	A deciduous woodland forming the valley of the Marlton Stream	Ballynerrin
NE6	Objective for the preservation of trees at Church Hill and the River Leitrim River bank	

Source: Wicklow CDP 2010-2016, Wicklow Town Development Plan 2007-2013 and Action Area 6 LAP, 2006

The 'Chestnut tree at Parochial Hall, St. Patrick's Road' was added to the list of trees considered for preservation (as identified on Wicklow Town-Rathnew Development Plan 2013-2019 Heritage Map)

Figure 4.4: Trees Listed for Protection



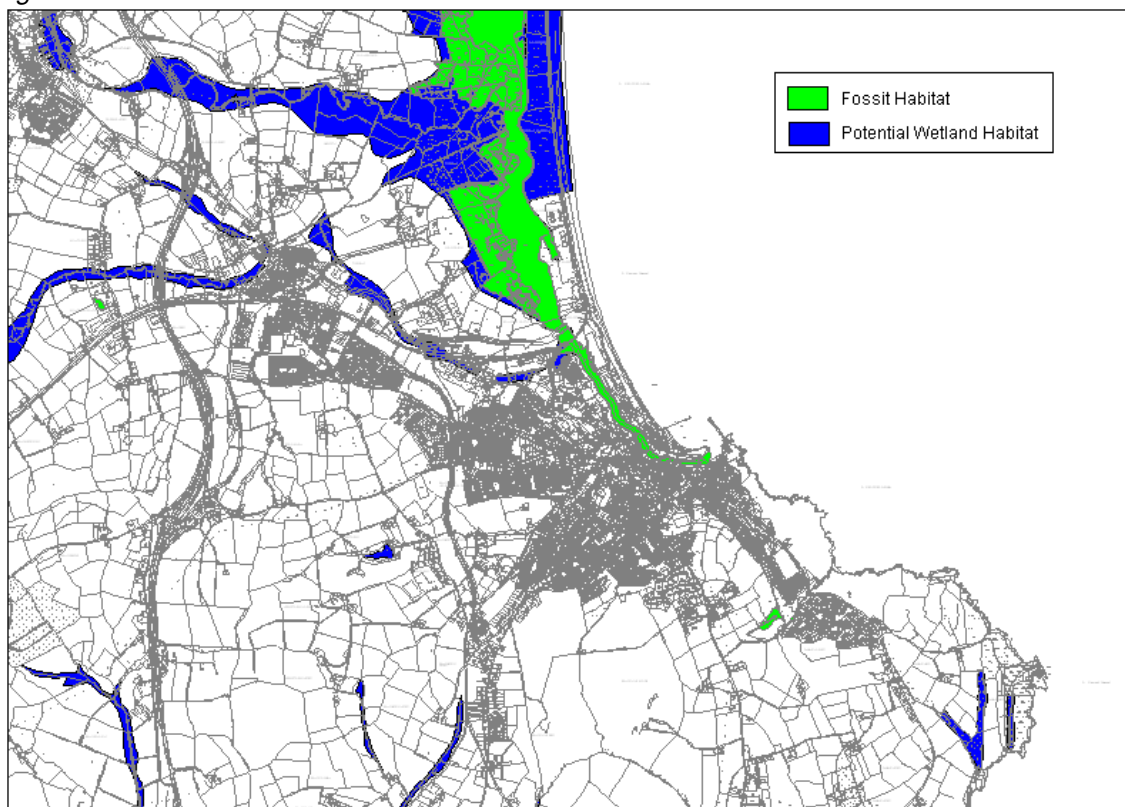
Source: Wicklow CDP 2010-2016, Wicklow Town Development Plan 2007-2013 and Action Area 6 LAP, 2006

4.2.5 The County Wicklow Wetland Survey

The County Wicklow Wetland Survey 2011 includes a survey of wetland habitats in County Wicklow. Fossitt habitats⁷ within the plan area include the Murrough Wetland pNHA/SAC and a pond and associated stream located at Dunbur Lower. The majority of sites in the plan area are designated 'potential wetlands', and are designated mainly on the basis of alluvial soil type.

⁷ The Wicklow Wetland survey mapped wetland habitats using the 'Fossitt' classification system. This is the standard habitat classification system in Ireland and is derived from the Heritage Council's "A Guide to the Habitats of Ireland", Fossitt (2000).

Figure 4.5: Wetlands



Source: County Wicklow Wetland Survey 2011

4.2.6 Invasive Species

Invasive non-native plant and animal species are one of the greatest threats to biodiversity within the plan area. Invasive alien species negatively impact biodiversity through competition, herbivory, predation, habitat alteration and introduction of parasites and poses a risk to the genetic integrity of our native species. Invasive species within the plan area include Japanese knotweed (*Fallopia japonica*), Giant rhubarb (*Gunnera tinctoria*), Travellers joy (*Clematis vitalba*), Sea buckthorn (*Hippophae rhamnoides*), and Hottentot fig (*Carpobotus edulis*).

4.3 WATER RESOURCES AND QUALITY

The water resources of the region comprise surface waters including rivers, lakes, transitional and coastal water, and ground water. These resources are utilised for a wide range of uses including potable water, industry, amenity, agriculture and in the sustenance of ecosystems. Consequently, water is an extremely important resource and needs to be managed appropriately to ensure that its quality is maintained and its availability is not compromised.

The plan area falls within the catchment of the Eastern River Basin District (ERBD) and as such, much information regarding this environmental baseline is derived from the Eastern River Basin Management Plan (ERBMP)⁸. It should be noted that a substantial amount of the plan area is

⁸ The Eastern River Basin District Management Plan 2009-2015 is a plan for the implementation of the EU Water Framework Directive, which commits all member states to preventing deterioration and achieving at least good status in our rivers, lakes, estuaries, coastal and ground waters by the year 2015. The Plan describes the actions that are proposed to ensure the necessary protection of waters over the coming years. It sets out how the aims and objectives of improving and protecting water quality and ecology in the waters of each river basin district could be achieved, by means of a Programme of Measures.

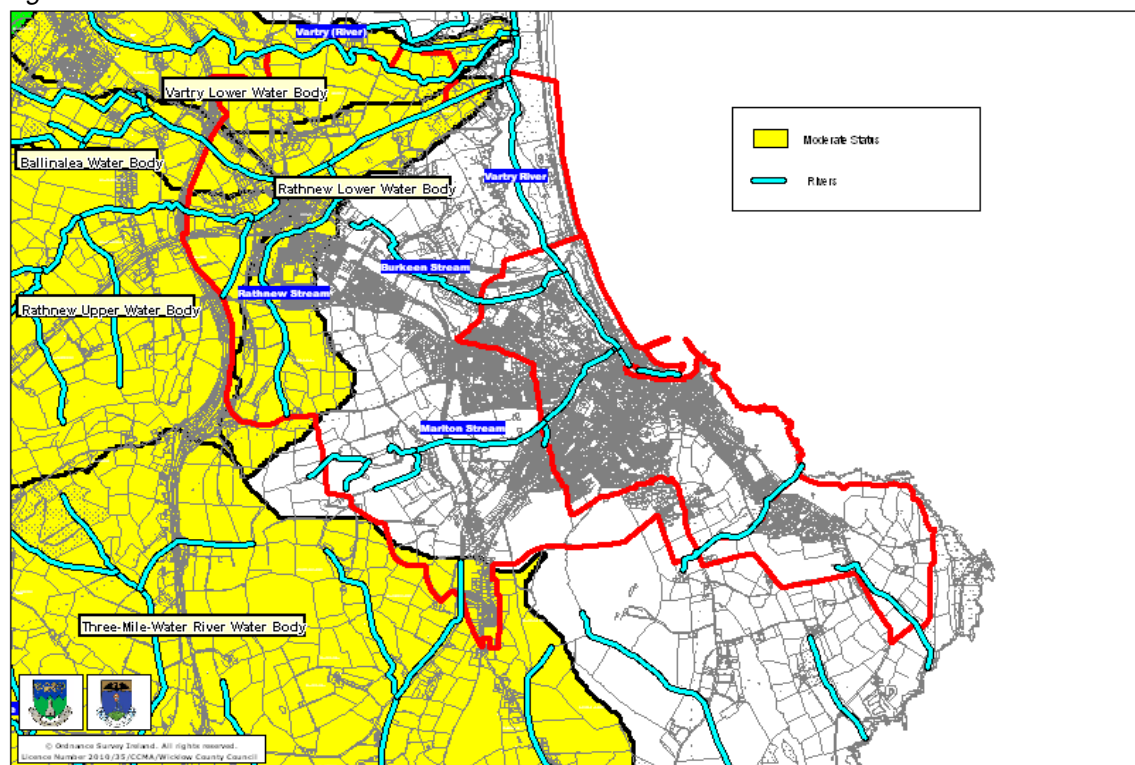
classified as being an area that floods directly into the sea, and as such is not part of the water management unit.

The following water bodies are of relevance to the plan area:

- The Potters Water Management Unit (WMU) includes the Three Mile Water river water body, which is of 'moderate' ecological status. The RBMP includes an objective for the Potters WMU to achieve a 'good' ecological status by 2021.
- Rathnew WMU includes the following water bodies:- Rathnew Lower water body, which is of 'moderate' ecological status, - Rathnew Upper water body, which is of 'moderate' ecological status and Ballinalea water body, which is of 'moderate' ecological status. The RBMP includes an objective for the Rathnew WMU to achieve a 'good' status by 2027.
- Vartry WMU includes the Vartry Lower water body, which is of 'moderate' ecological status. The RBMP includes an objective for the Vartry WMU to achieve a 'good' ecological status by 2021.
- The 'Southwestern Irish Sea-Killiney Bay (HA10)' coastal water body – this water body is of 'high' ecological status, and the objective is for it to maintain its status.
- The 'Broad Lough' transitional water body⁹ - this water body is of 'moderate' ecological status, and the objective, as set out in the RBMP, is for it to achieve a 'good' status by 2021.
- The 'Wicklow East' groundwater body – this water body is of 'good' ecological status, and the objective is for it to maintain its status.

Information on the water quality of the area is indicated in Figures 4.6, 4.7 and 4.8.

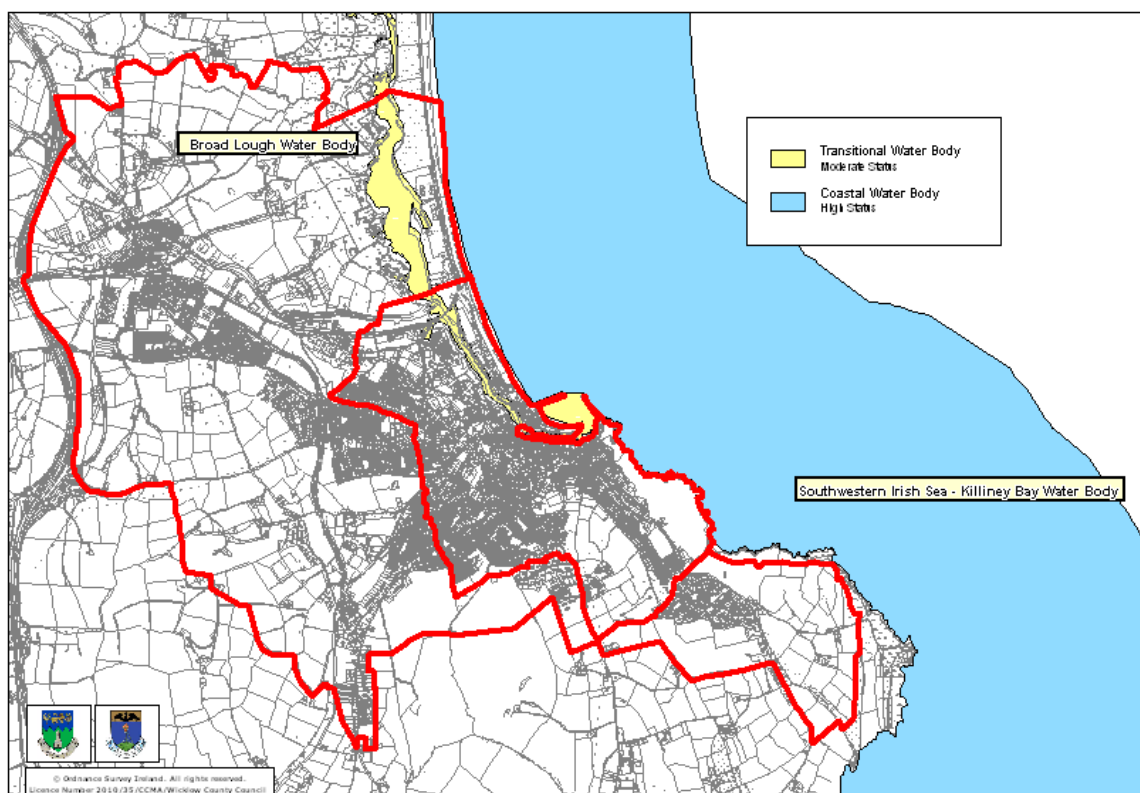
Figure 4.6: River Water Bodies



Source: Eastern River Basin Management Plan 2009-2015

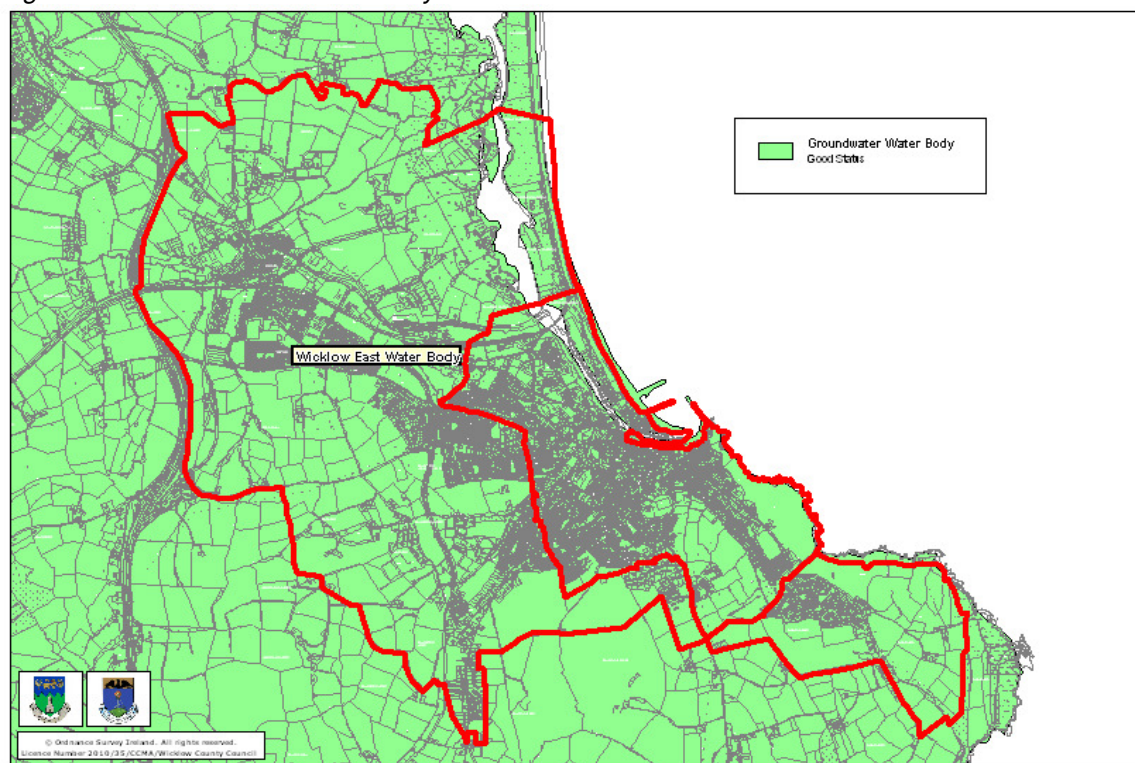
Figure 4.7: Coastal and Transitional Water Bodies

⁹ Transitional waters are bodies of surface water in the vicinity of river mouths which are partly saline in character as a result of their proximity to coastal waters but which are substantially influenced by freshwater flows.



Source: Eastern River Basin Management Plan 2009-2015

Figure 4.8: Groundwater Water Body



Source: Eastern River Basin Management Plan 2009-2015

4.4 MATERIAL ASSETS

4.4.1 Drinking Water Supply

Drinking water to the areas of Ashford, Rathnew and Wicklow Town and its environs are supplied by the 'Wicklow Water Supply Scheme'. This scheme is supplied from the Cronroe Water Treatment Plant and Reservoir in Ashford, where water, abstracted from the Vartry River at Annagolan, is treated and mixed with treated water from the Dublin Regional Supply at Vartry Reservoir in Roundwood. Water from the Cronroe Water Treatment Plant is distributed throughout the plan area via a number of intermediary storage reservoirs, including Broomhall, Seacrest, Ballynerrin, Greenhills and Mariner's Point reservoirs.

Pending the completion of a new pipeline from the Vartry supply to the Cronroe Reservoir by 2013, the town will have sufficient water supply to meet the needs of projected population growth. Notwithstanding the available supply of water, the ability to supply all lands within the environs boundary is restricted, mainly due to the lack of a high level reservoir, and also to requirements regarding the upgrade and rationalisation of existing systems. The following table describes the general limits at which water can be currently supplied.

Table 4.2: Limits for Water Supply to lands subject of Wicklow Town - Rathnew Development Plan 2013-2019

Lands	Maximum height for water supply	Supplied by
Lands north west of Marilton Road	80m	Broomhall Reservoir
Lands south east of Marilton Road	103m	Greenhills/Ballynerrin/Seacrest Reservoirs
Lands off Greenhills Road	130m	Mariner's Point Reservoir

4.4.2 EPA Remedial Action List

As part of its supervisory role under the 2007 Drinking Water Regulations, the EPA prepares a list of public water supplies where remedial action or management action is required to ensure compliance with the requirements of these Regulations into the future. This list is called the Remedial Action List for Public Drinking Water Supplies (RAL).

The most recent report¹⁰ on the provision and quality of drinking water indicates that the Wicklow Regional Public Supply is included on the Remedial Action List (RAL) due to levels of THMs (trihalomethanes), which are marginally above the limits set out by EC (Drinking Water) (No. 2) Regulations 2007¹¹. Notwithstanding this, the water supplied to the plan area from the Cronroe Treatment Plant is safe to drink, and the water services section of Wicklow County Council is currently in the process of addressing this matter.

4.4.3 Drinking Water Conservation

Wicklow County Council is involved in the Dublin Region Water Conservation Project, which aims to conserve the region's scarce water resources through measures focused on reducing leakage in the system.

There are significant levels of unaccounted water in the Wicklow Regional Public Supply. However, significant planned upgrades to the system including the upgrade of the Varty to

¹⁰ 'The Provision and Quality of Drinking Water in Ireland – A report for the Year 2010' (EPA, 2011)

¹¹ These THMs are disinfection by product, resulting from the chlorination of the Dublin City Council supply at Cronroe.

Cronroe water main and the introduction of the new trunk main from Cronroe to the plan area will significantly improve the security of the system.

4.4.4 Wastewater Treatment

In 2010, the new Wicklow Sewerage Scheme came into operation, serving the settlements of Ashford, Rathnew and Wicklow. The Wastewater Treatment Plant has a capacity of 34,000 PE (population equivalent) and is located at Knockrobin Murrough. The operation of the scheme involves the collection of wastewater from the area at the Murrough Pumping Station, near the harbour, where the wastewater undergoes preliminary treatment. The screened wastewater is then pumped to the Knockrobin Wastewater Treatment Plant, where secondary treatment is undertaken along with the removal and treatment of sludge. Treated effluent is returned to the Murrough Pumping Station where it is discharged to the sea through a long sea outfall pipe.

4.4.5 Transportation Infrastructure

Wicklow and Rathnew are located at highly accessible locations, with direct access off the N11/M11 at Rathnew and Ballynabarney, linking the settlement to Dublin in the north and Rosslare in the south. Accessibility within the plan area has been enhanced greatly over recent years, with the introduction of the Wicklow Port Access and Wicklow Town Relief road schemes. There are a variety of regional and local roads which provide access from the south and north. There is however, limited road infrastructure servicing lands in an east west direction. Bus and rail public transport routes connect the settlement to Dublin and Rosslare. In addition, Wicklow Port is an important international freight transport mode.

'Wicklow and Environs Integrated Framework Plan for Land Use and Transportation (IFPLUT), 2003' set out proposals for the plan area, including a proposal for the development of an Integrated Transportation Interchange at Rathnew. It is unlikely that such a facility will be provided in the foreseeable future.

4.4.6 Flood and Coastal Defences

In order to mitigate against risk posed from flooding, alleviation works have been undertaken in the plan area. In order to alleviate flood risk from Marlton Stream, the Wentworth Place culvert has been upgraded from Parnell Bridge to the Abbey Grounds. In addition, there are culvert upgrading and stream regrading works planned for the Forge culvert and for the Rathnew Stream in the vicinity of Ballybeg and Rathnew village.

As a measure to mitigate against the effects of coastal erosion, rock armour protection was placed along the shoreline of the plan area in the 1980s. This was extended by the Port Road contract to protect the Port Road from erosion.

4.4.7 Recreational Amenity

The plan area includes a variety of assets for recreational amenity, including a golf course, tennis courts, GAA grounds (Coast Road), rugby grounds (Ashtown), soccer grounds (Station Road), GAA/soccer grounds (Rathnew), swimming pool, and a Multi Use Games Area (MUGA) on St. Laurence's Road.

In addition, the Murrough and Wicklow Head areas provide natural amenity assets, providing important walking routes and swimming areas. Wicklow Port provides an important amenity for pursuits including sailing and fishing.

4.5 FLOODING

To comply with the EU Floods Directive introduced in November 2007, and in line with the Guidelines for Planning Authorities 'The Planning System and Flood Risk Management', an assessment of flood risk is to be undertaken as part of the preparation of the new Development Plan. In accordance with the guidelines, the preparation the plan is to incorporate an approach that aims to avoid development in areas at risk of flooding, and where development on floodplains cannot be avoided, to take a sequential approach to flood risk management based on reduction and mitigation of risk.

The Office of Public Works (OPW) National Flood Hazard mapping project provides information on records of flooding the area. The maps indicate three records of flooding in the study area, at Marlton Stream, Burkeen Stream and Rathnew.

In addition, the plan preparation process had regard to the 'Wicklow Town River Analysis' that was undertaken by Barry and Partners in 2004. The study involved calculating the capacity of three streams, the Rathnew, Burkeen and Marlton Streams, to determine the impact of existing and future levels of urban development and to provide an analysis of the potential for flooding in their lower reaches. Mathematical modelling was used to determine what works are required to provide adequate capacity in the streams to cater for the 100-year design flow for the scheme.

4.6 CULTURAL HERITAGE INCLUDING ARCHITECTURAL AND ARCHAEOLOGICAL HERITAGE

4.6.1 Record of Protected Structures

The plan area includes a number of structures that are included on the Record of Protected Structures (RPS). These structures are listed on the following table and are indicated on Figures 4.9a and 4.9b.

Table 4.3: Record of Protected Structures

RPS Number	Structure	Address
RPS 1	House	Brickfield Lane
RPS2	Piers and gates	Brickfield Lane
RPS3	graveyard	Wicklow Parish Church of Ireland Graveyard, Church Hill
RPS4	Church	Wicklow Parish Church of Ireland, Church Hill
RPS5	Early Christian or Norman works	Saint Nathi's/ Round Mount
RPS6	doorcase	Wicklow Parish Church of Ireland, Church Hill
RPS7	bridge	Leitrim River (Bridge)
RPS8	house	Bridge Street
RPS9	church	Saint Patrick's Church, Saint Patrick's Road
RPS10	courthouse	Courthouse, Market Square
RPS11	laneway	Main Street
RPS12	Gaol	Kilmantin Hill
RPS13	chapel	Methodist Chapel, Bay View Road
RPS14	Semi detached 6 bay three storey over basement extension with dormer attic	Dominican Convent, Convent Road
RPS15	chapel	Saint Dominic's Convent and Chapel, Dominican Convent, Convent Road

RPS16	school	Saint Dominic's Wing, Dominican Convent, Convent Road
RPS17	Terraced 8 bay three storey basement dormitory extension	Saint Joseph's Wing, Dominican Convent, Convent Road
RPS18	Semi detached 6 bay three storey over basement extension to school	Saint Theresa's Wing, Dominican Convent, Convent Road
RPS19	Semi detached 6 bay four storey over basement extension	Saint Catherine's Wing, Dominican Convent, Convent Road
RPS20	Retaining wall	The Mall
RPS21	Letter box	Dunbur Road
RPS22	ruins	Black Castle
RPS23	Remains of defensive ramparts to Black Castle	Castle Street
RPS24	Remains of friary	The Abbey, Abbey Street
RPS25-01	Hotel	Hunter's Hotel, Rathnew
RPS25-04	Rathnew	Former school/hall
RPS25-05	Rathnew Catholic Church	Church
RPS25-07	Brides Head, Dunbar, Wicklow Head	Early ecclesiastical remains
RPS25-08	Wicklow Head	Old semifore
RPS25-09	Wicklow Head Lighthouse	Lighthouse
RPS25-12	Newrath, Rathnew	Letterbox
RPS25-13	Clermont House, Rathnew	Country house/3 rd level college
RPS25-15	Tinakilly House Rathnew	Country house
RPS25-16	Broadlough House	Country house

Source: Wicklow CDP 2010-2016, Wicklow Town Development Plan 2007-2013 and Action Area 6 LAP, 2006

Figure 4.9a: Record of Protected Structures in Wicklow County Council area

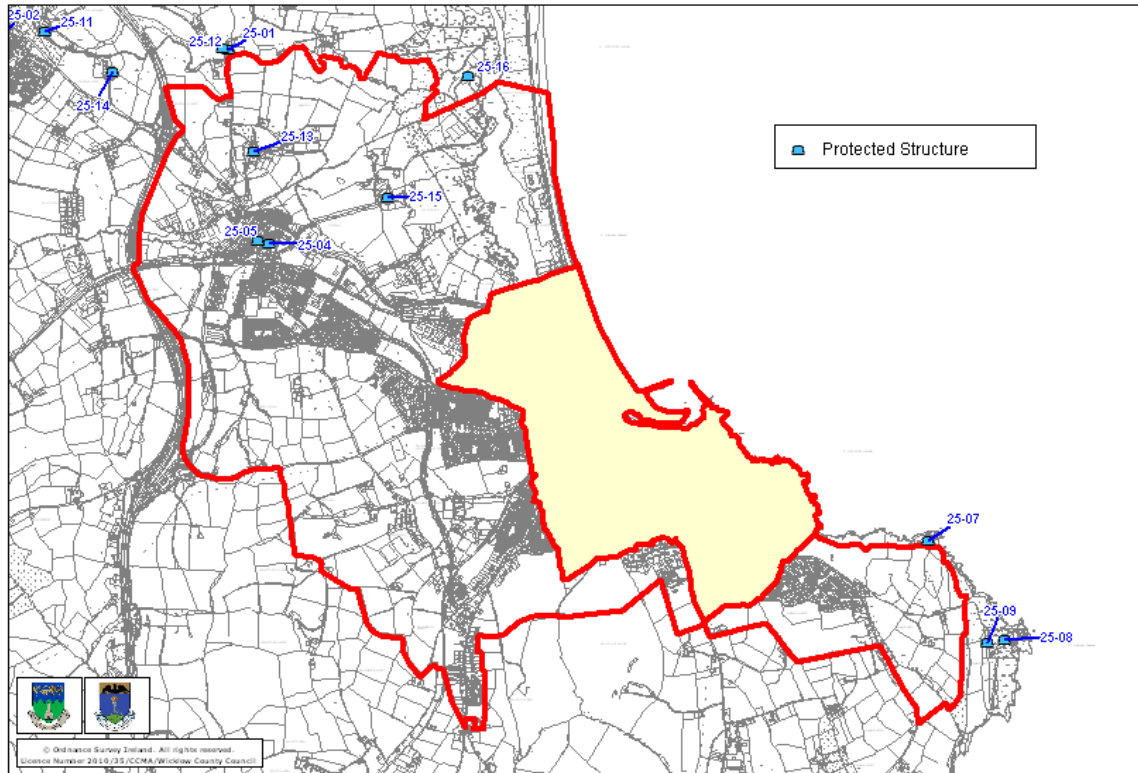
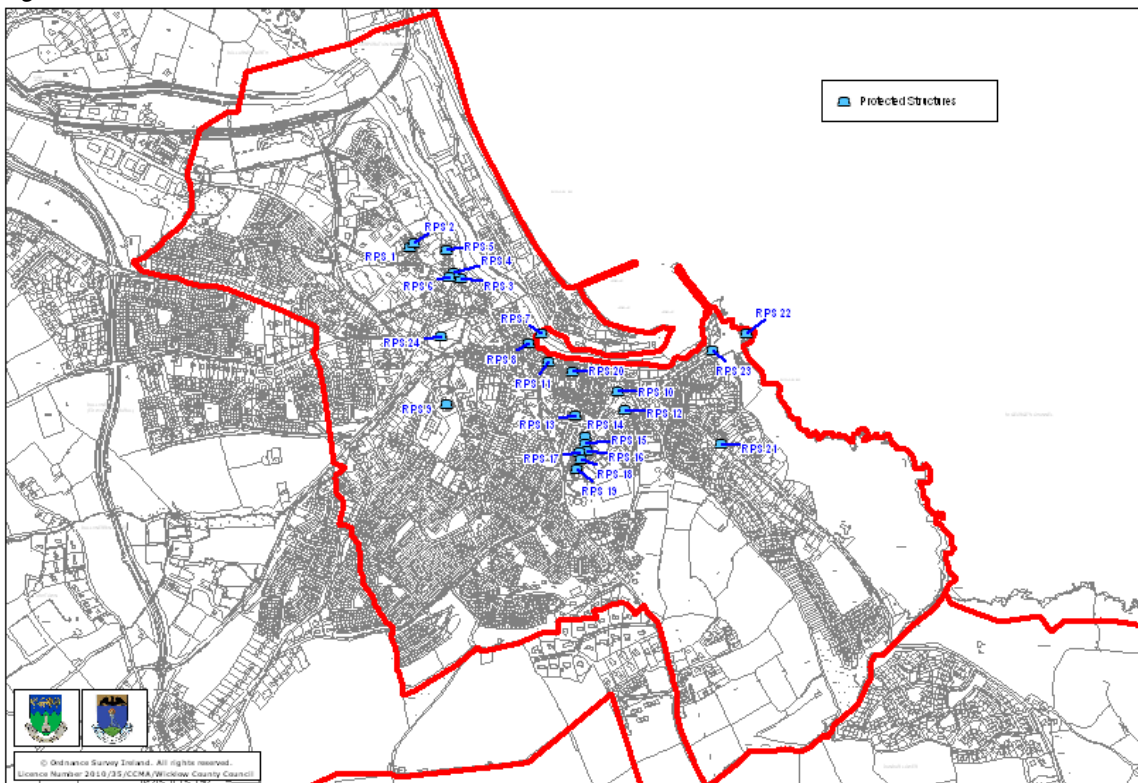


Figure 4.9b: Record of Protected Structures in Wicklow Town Council area



the following additions were made to the RPS:

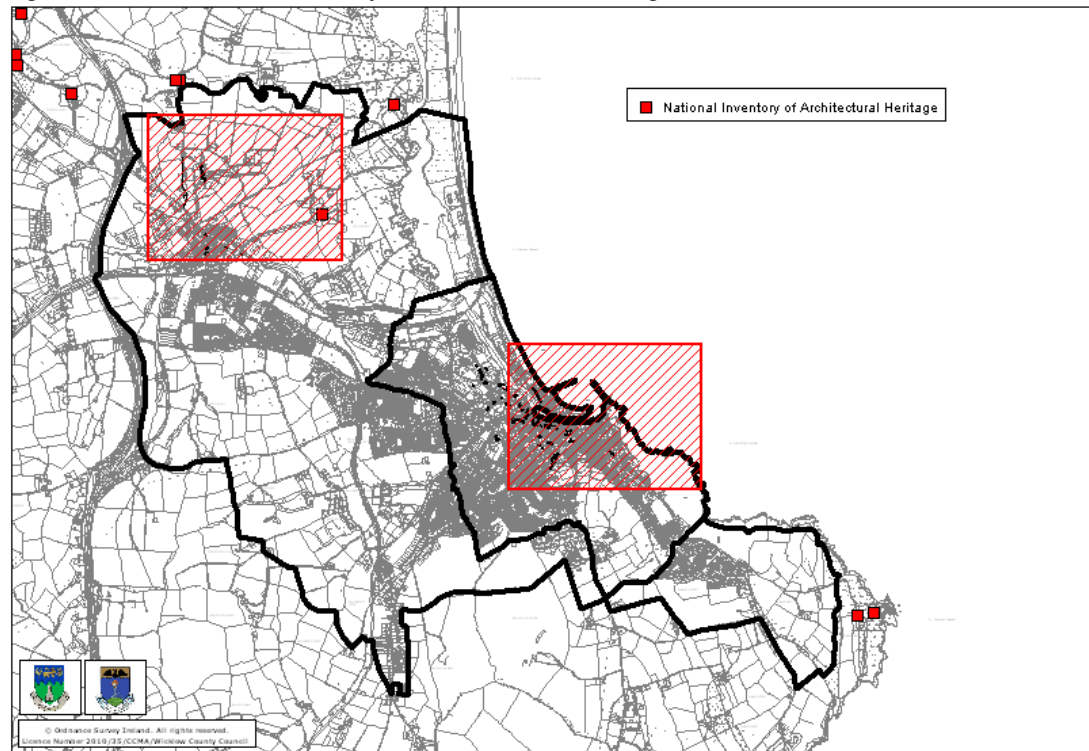
- The Train Station, signal room and waiting room on the opposite platform (Platform 2), Station Road
- Grimshaws Lodge, Friar's Hill
- St. Patrick's Parochial Hall, St. Patrick's Road
- The Comhaltas Building, Seafront
- The Cholera House, Greenhills Road
- The Handball Alley, Crinion Park
- The Capstan, South Quay
- Anchor at Black Castle

These additions are identified on Wicklow-Town Rathnew Development Plan 2013-2019 Heritage Map.

4.6.2 National Inventory of Architectural Heritage

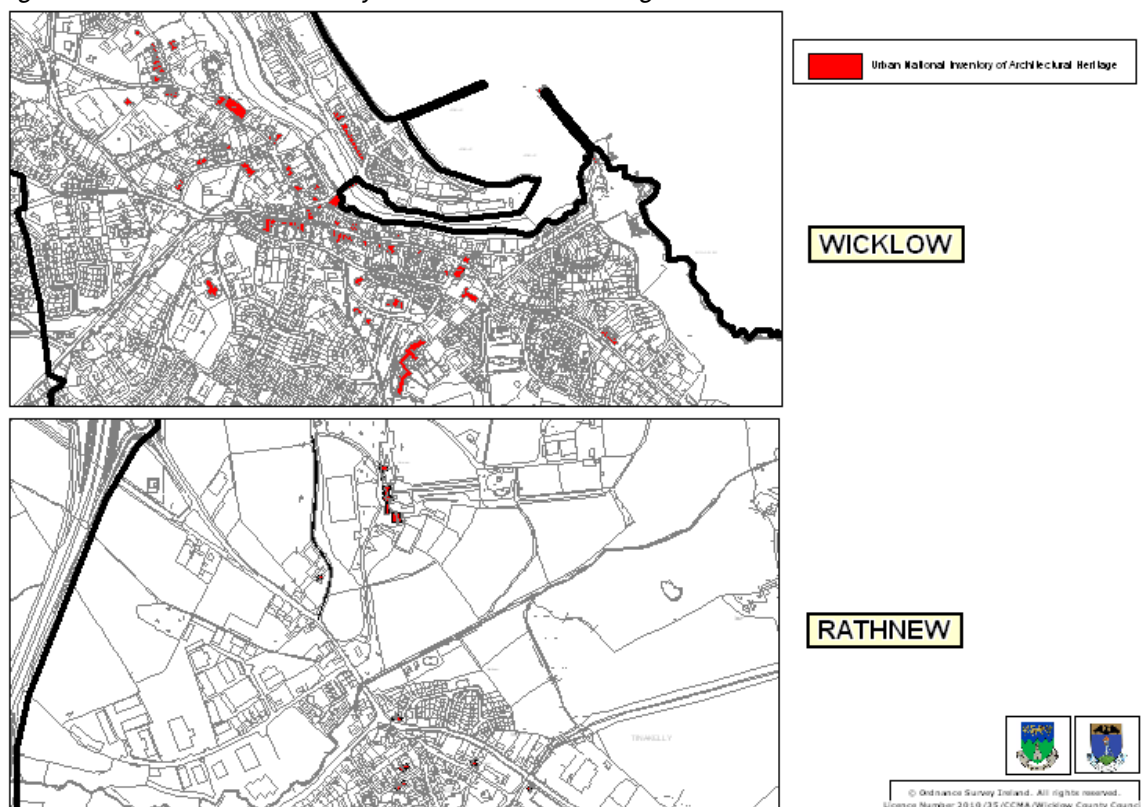
Regard will be paid to the survey of the National Inventory of Architectural Heritage. There are nearly 100 structures listed on the NIAH that are located within the plan area. Structures identified in the survey are identified in Figure 4.10a and 4.10b.

Figure 4.10a: National Inventory of Architectural Heritage



Source: NIAH

Figure 4.10b: National Inventory of Architectural Heritage

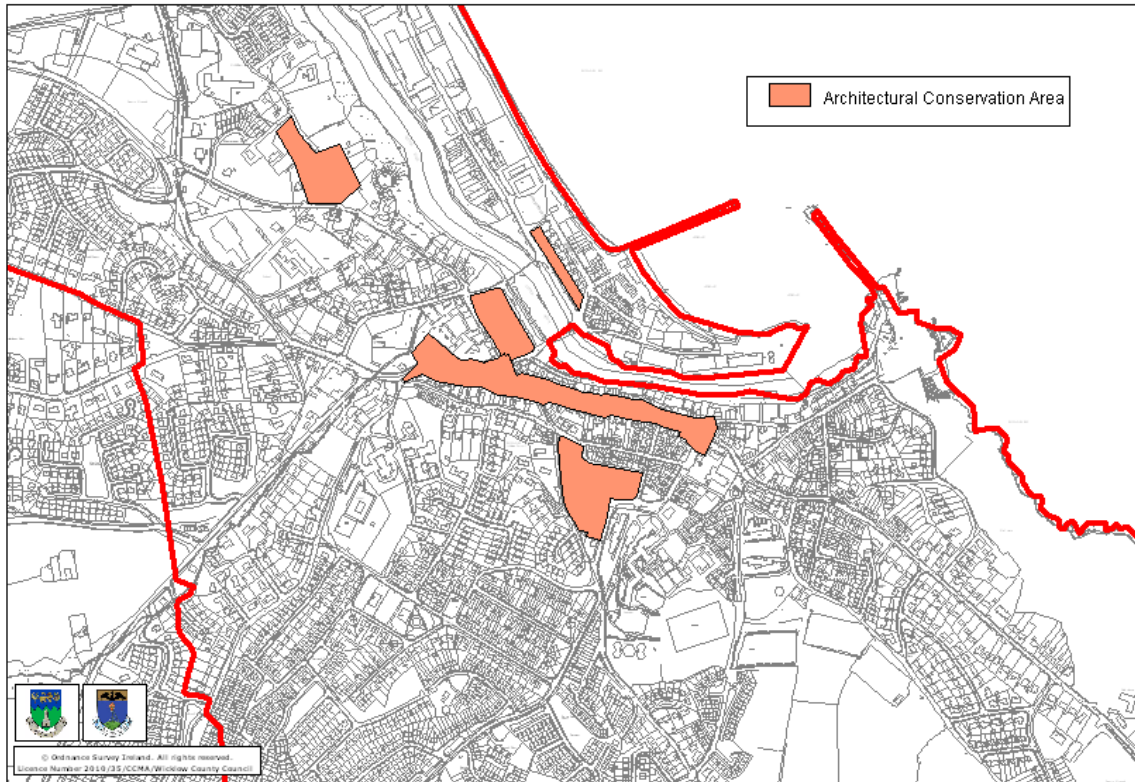


Source: NIAH

4.6.3 Architectural Conservation Area

The following five Architectural Conservation Areas (ACAs) are included in the Wicklow Town-Rathnew Development Plan 2013-2019: Town Centre ACA, Leirim Place ACA, Bachelor's Walk and Church Street ACA, Bay View Road ACA, Brickfield Lane ACA. These ACAs are designated in areas of architectural, historical and cultural importance. The ACAs are indicated on Figure 4.11.

Figure 4.11: Architectural Conservation Area

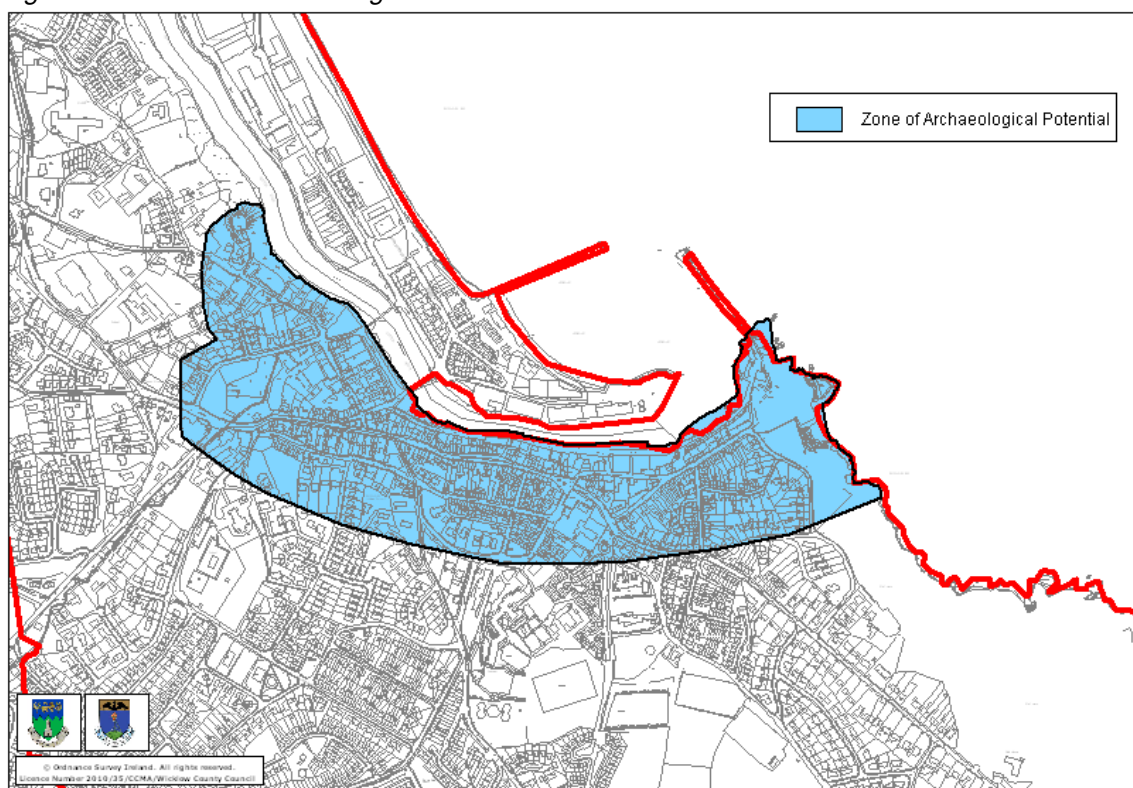


Source: Wicklow Town-Rathnew Development Plan 2013-2019

4.6.4 Zone of Archaeological Potential

The Zone of Archaeological Potential is indicated on Figure 4.12. The Zone of Archaeological Potential is protected under the National Monuments Act 1994 (as amended), and is listed as RMP 12, on the Record of Monuments and Places.

Figure 4.12: Zone of Archaeological Potential



4.6.5 Record of Monuments and Places (RMP)

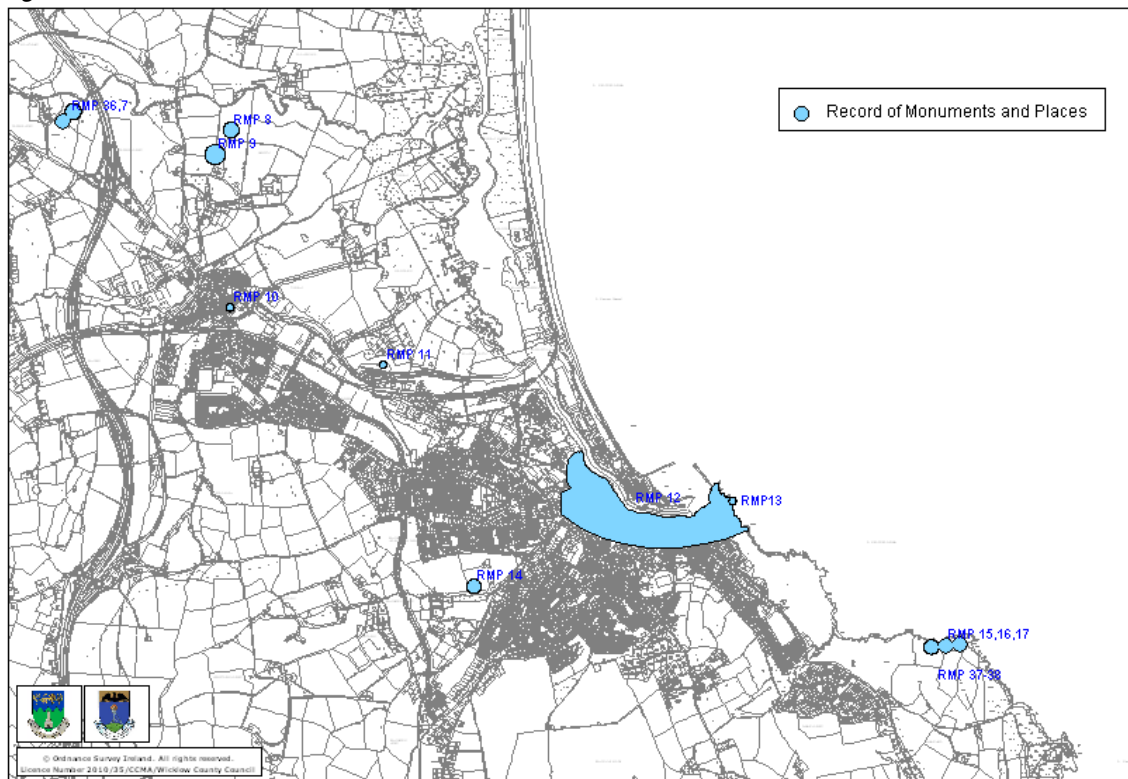
The Record of Monuments and Places (RMP) includes a list of monuments and places that are protected under the National Monuments Act 1994 (as amended). These are listed in Table 4.4 and are indicated on Figure 4.13.

Table 4.4: Record of National Monuments and Places (RMP)

RNP	Monument Number	Townland	Classification
RMP8	WI025-008	Newrath	Enclosure
RMP9	WI025-009	Newrath	Field System Possible Site
RMP10	WI025-01001 WI025-01002	Commons	Church, Graveyard, Font
RMP11	WI025-01101 WI025-01102	Glebe (NE.BY.) Wicklow Rural ED	Church Site, Font
RMP12	WI025-012 WI025-01201 WI025-01202	Ballynerrin Lower Corporation Land (1 st Division) Corporation Lands Glebe (NE. BY.) Wicklow Urban ED Wicklow	Town Motte possible Friary Church
RMP13	WI025-013	Corporation Lands	Castle
RMP14	WI025-014	Ballynerrin (NE BY) Wicklow Rural ED	Cist
RMP15	WI025-015	Dunbur Head	Souterrain Possible
RMP16	WI025-016	Dunbur Head	Holy well site
RMP17	WI025-01701	Dunbur Head	Church
RMP37	WI025-037	Dunbur Head	Rock Shelter

RMP38	WI025-038	Dunbur Head	Rock Shelter
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Figure 4.13: Record of Monuments and Places



Source: Record of Monuments and Places

4.6.6 Wicklow Town Public Realm

The following guidance documents aim to protect and enhance the physical features that contribute to the town's special character and setting:

- 'Wicklow Town Public Realm Plan' (2008) includes proposals for a series of initiatives for the improvement of the town's natural and urban public spaces and landmarks.
- 'Wicklow Town – A Gallery of Shopfronts' (2010) includes an inventory and guidance notes for the repair and renewal of shopfronts in the town centre.

4.7 LANDSCAPE

4.7.1 Landscape Characterisation Assessment

The Wicklow CDP 2010-2016 Landscape Characterisation Assessment classifies landscapes in Wicklow according to their sensitivity. The landscape of the plan area is within the 'urban' area, which is a designation of low vulnerability.

4.7.2 Listed Views and Prospects

The Wicklow CDP 2010-2016 includes a list of prospects that are designated for protection. The following are located within the study area:

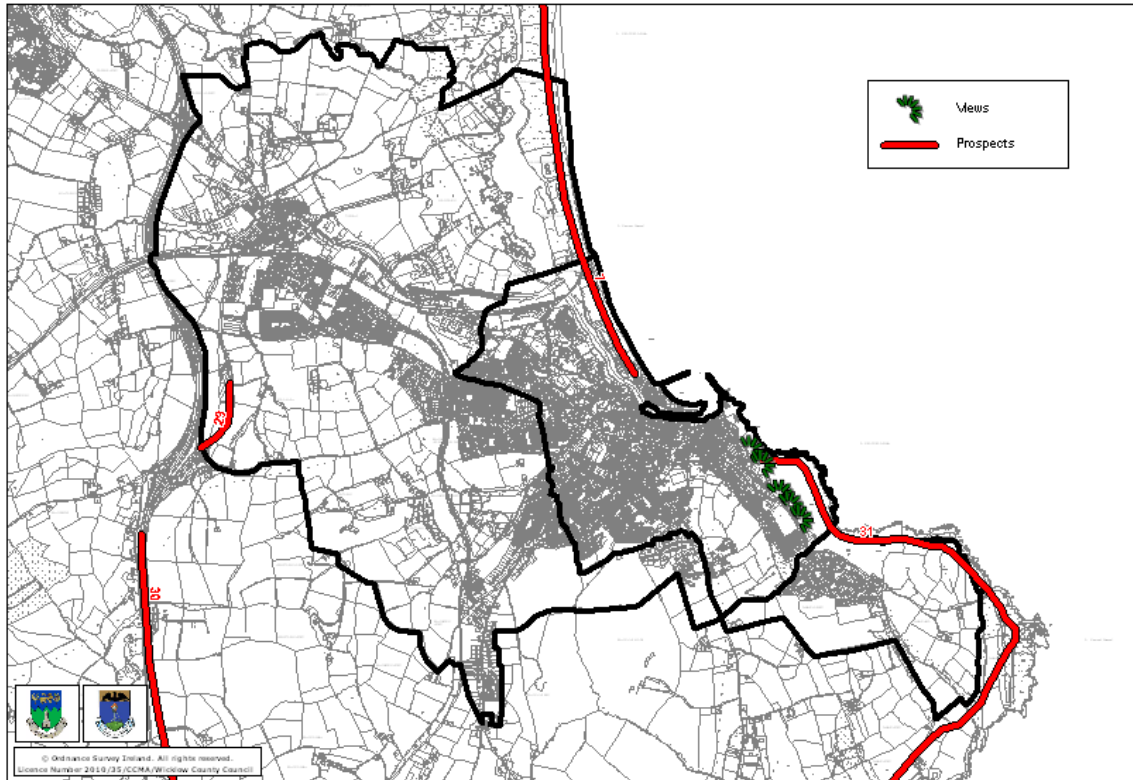
- Listed Prospect no.31: prospect from 'R750 Wicklow to Arklow' to 'Prospect towards sea from coast road'.
- Listed Prospect no.29: prospect from 'N11 south of Rathnew' to 'Murrough and sea'
- Listed prospect no.30: prospect from 'N11 Ballinabarney' to 'Hawkstown Hill'

- Listed prospect no. 7: prospect from 'Railway from Greystones to Wicklow town' to 'coast along railway line'.

The 'Wicklow Town Development Plan 2007' includes an objective to protect five listed views. Three views are from the Dunbur Road and two are from the edge of the Blackcastle area. Policy NE7 requires the 'protection of listed views from inappropriate development or obstruction from public access'.

These protected views and prospects have been carried forward into the Plan (including minor amendment to prospect no.29). Listed views and prospects are indicated on Figure 4.14.

Figure 4.14: Views and Prospects



Source: Wicklow CDP 2010-2016, Wicklow Town Development Plan 2007-2013

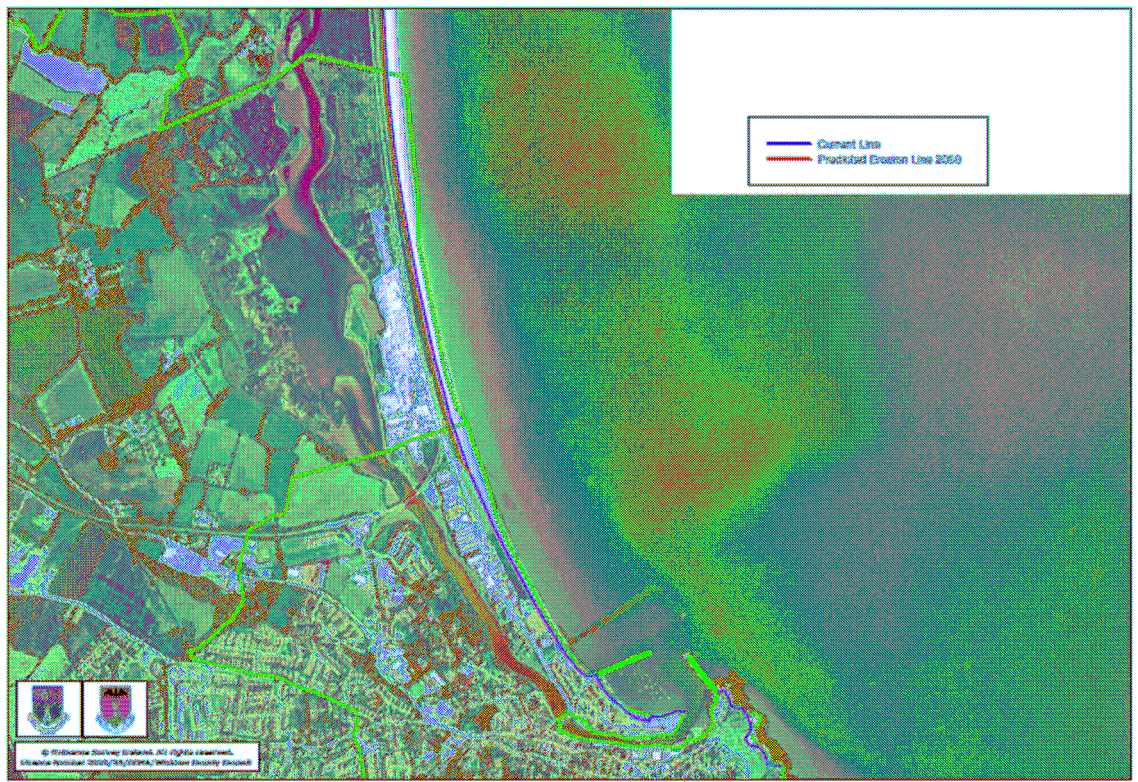
4.8 CLIMATE AND AIR QUALITY

4.8.1 Climatic Factors

The most important climate change impact that the plan area will have to adopt includes changing rainfall patterns and rising sea levels. These changes will significantly affect water resources, ecosystems and agriculture, and increase the risk of flooding and coastal erosion.

In 2007, the 'Murrough Coastal Protection Study' was undertaken for the Murrough area, extending the coastal stretch from Wicklow Harbour to Five Mile Point. The study predicts that coastal erosion is likely to occur at a distance of between 15 and 30 metres by 2050 and recommends the installation of a rock revetment and breakwaters in order to protect the coast and to provide a beach for recreational activity. Figure 4.15 indicates the predicted erosion line in 2050. Coastal erosion and flooding pose a significant risk to the water dependent habitats of the Murrough and to buildings and infrastructure along the coastal areas and in flood plains.

Figure 4.15: Predicted Coastal Erosion



Source: Murrough Coastal Protection Study, 2007

4.8.2 Air

There are wide ranges of EU introduced legislation that have measures to address the issue of air quality management, including the Air Quality Framework Directive (96/62/EC) and 'daughter' directives. The recently adopted CAFÉ Directive (2008/50/EC) incorporates all main air quality limits and measurement techniques and includes targets for quality. As yet, this Directive has not been transposed into Irish law.

Ambient air quality is monitored by the EPA. The EPA air quality data indicates that the Wicklow area is located in Air Quality Zone D (Rural Ireland) and has no restrictions on the sale of coal. Air quality in Zone D areas is generally very good with low concentrations of pollutants such as NO₂, PM₁₀, CO.

At present, there is a localised effect upon air quality in the town centre area due to traffic emissions, however this is common to all urban centres. In general, potential concerns in terms of air quality, either from traffic or industrial activities, are greatly reduced by Wicklow Town's coastal location. The attendant sea winds and air movements generally result in the dispersal of emissions in the town. In addition, dust and PM10 can also be an issue locally during construction and operation.

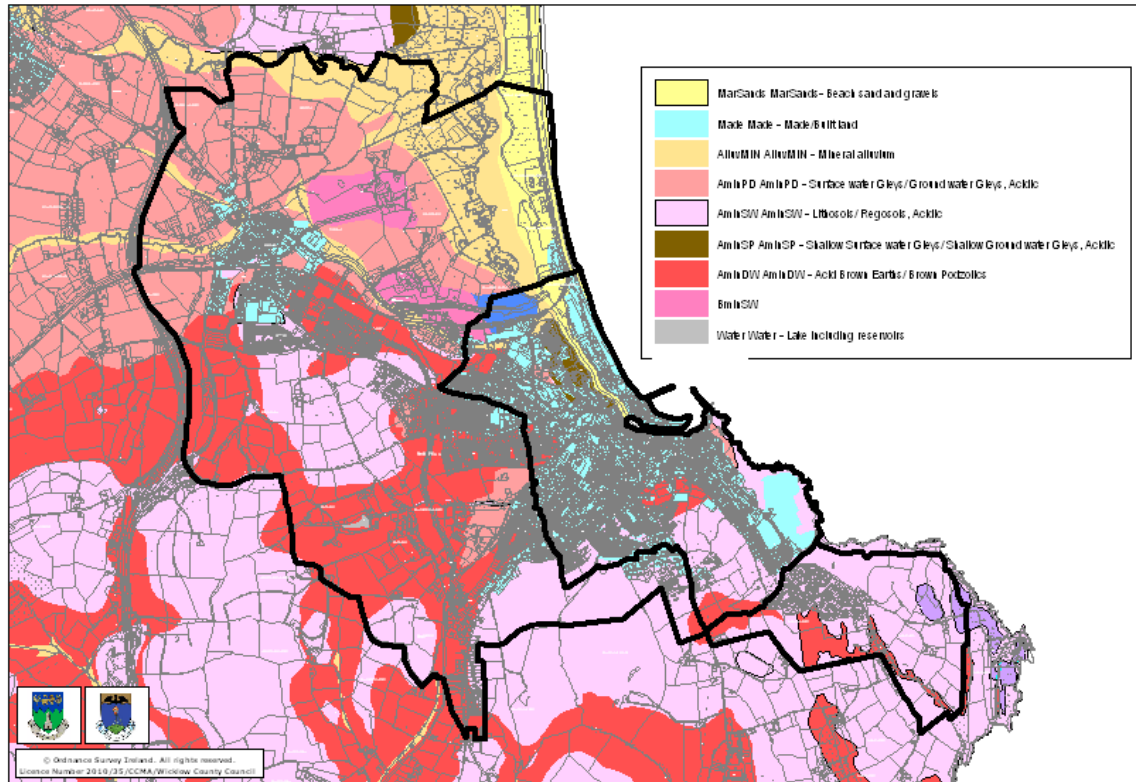
4.9 SOIL

The distribution and type of soils influences the diversity, flora and fauna of the area, as well as the type and extent of agricultural land uses. Figure 4.16 indicates the spatial distribution of soils in the study area. There are no current extractive industries in or sites of geological interest in the plan area.

The plan area is underlain by three main bands of soil types:

- The developed areas of Wicklow Town and Rathnew are underlain by man-made or urban soils. Urban soils are soils which have been disturbed, transported or manipulated by man's activities in the urban environment and are often overlain by a non-agricultural, man-made surface layer that has been produced by mixing, filling, or by contamination of land surfaces in urban and suburban areas.
- Soils to the north of the study area are predominantly poorly drained mineral soils, mineral alluvium along flood plains and the Murrough area, and sand and gravels along coast.
- The majority of soils to the south of the study area are well drained mineral soils.

Figure 4.16: Soil Type



4.10 CUMULATIVE ENVIRONMENTAL ASSESSMENT

In order to assess how the Plan may impact on the environment of the plan area, a map was prepared to indicate levels of environmental sensitivity across the plan area. This map is included in Figure 4.17. The areas shaded in red indicate areas where there is a high environmental vulnerability, whilst areas shaded yellow indicate areas with a lower environmental vulnerability.

The map was created using Geographical Information Systems (GIS), whereby layers of environmental sensitivities were overlain, thereby enabling the identification of areas where a number of environmental sensitivities co-exist. In layering the environmental sensitivities, regard was paid to the degree of vulnerability attributed to the varying environmental characteristics. Each environmental characteristic was attributed with a weighting, ranging from 1-4, whereby characteristics of lower vulnerability are attributed a lower weighting and characteristics of higher vulnerability are attributed a higher weighting. After all layers were overlain, each site was attributed with a cumulative score, reflecting the combined total of all weightings on the site. This combined weighting indicates the overall level of sensitivity of a particular within the plan area. A

list of the environmental characteristics and their weightings represented in the map is set out in Table 4.5 below.

It should be noted that the map created on the basis of this assessment is based on certain assumptions regarding vulnerability and levels of risk, and assumes the reliability of spatial data. It is recommended that this assessment should be used for strategic level and general guidance purposes only.

Table 4.5: Environmental Characteristics Risk Scoring

Environmental Characteristic	Score
Natura 2000 Sites (SAC/ SPA)	4
Natural Heritage Areas	3
Record of Monuments and Places	3
Record of Protected Structures ¹²	3
Flood risk areas	2
Zone of Archaeological Potential	3
Views and Prospects	2
Tree Preservation Order	2
Architectural Conservation Area	2
National Inventory of Architectural Heritage	1
Trees considered for preservation ¹³	1
Wicklow Urban Habitat Mapping	1
Predicted erosion line	1
<i>Data from Eastern River Basin Management Plan</i>	
Rivers	2
River water body with Moderate Status	1
River water body with Good Status	1
Groundwater body (Good Status)	1
Coastal water body (High Status)	1
Transitional water body (Moderate Status)	1
WFD Register of Protected Areas	2
- Vartry River Salmonid waters - Vartry river protected drinking water area - Wicklow East (protected groundwater drinking supply) - NHAs - SPAs - SACs	

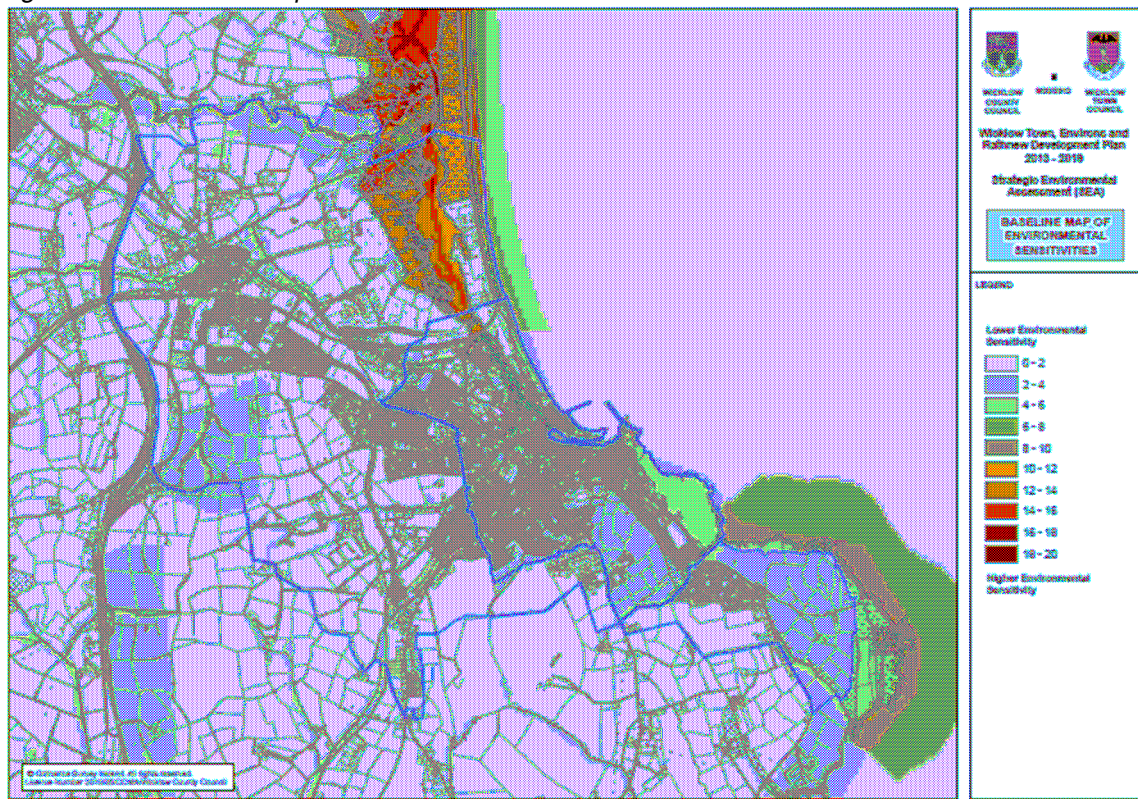
Scoring System

- 1 – status of local importance or low sensitivity
- 2 – status of county importance or medium sensitivity
- 3 – status of National/regional importance or high sensitivity
- 4 – status of European/International importance or extremely high sensitivity

¹² Excluding proposed additions

¹³ Excluding proposed additions

Figure 4.17: Baseline Map of Environmental Sensitivities



The baseline map of environmental sensitivities indicates that the following areas have environments that are particularly vulnerable:

- The Murrough, Wicklow Head and area designated as the Wicklow Town pNHA, are highly vulnerable areas, reflecting the large number of environmental characteristics in these areas, including Natura 2000 sites, pNHAs, listed prospects, national monuments and flood risk areas and areas prone to erosion (the Murrough).
- The Vartry River is a highly vulnerable characteristic, reflecting its protected status as a River of Salmonid Importance.
- The area that forms the Wicklow Head Golf Course is of value, reflecting its designation as an urban habitat¹⁴ and lands affected by listed prospects from the coast road towards the sea.
- Wicklow Town Centre's vulnerability is attributed to designations including the Zone of Archaeological Potential, Architectural Conservation Area and protected structures in the area.
- The Convent Lands is identified as a vulnerable area, reflecting its status as an urban habitat¹⁵.
- Lands in proximity to rivers are generally identified as being vulnerable, having regard to their vulnerability as water bodies and risk posed by flooding. This is particularly acute on lands south of the Vartry River.
- Lands south of Rathnew are identified as being vulnerable, having regard to listed prospect no.29 to Murrough and sea.

¹⁴ This urban habitat has been designated as being of low conservation status with low species richness.

¹⁵ This urban habitat has been designated as being generally of moderate status with low species richness/green lung in town.

- Lands at Hawkstown are identified as being vulnerable, having regard to listed prospect no.30 from N11 to Hawkstown Hill. It should be noted that this land is outside the plan boundary.

Particular regard is to be paid to the above areas and the reasons affecting their vulnerability, in the preparation of the Plan.

4.11 EVOLUTION OF ENVIRONMENTAL BASELINE IN THE ABSENCE OF A PLAN

The 'Do-Nothing' scenario represents a continuation of present trends, without any policy changes or infrastructural improvements, which may be proposed in a Plan. It forms the basis of comparison against which the environmental effects of the Development Plan can be measured. It is important to note that the 'Do-Nothing' scenario is not a reasonable alternative, which is required to be considered under the SEA Directive. Nor would it necessarily be in keeping with the fundamental principle of sustainable development.

The likely environmental effects resulting from the lack of a new Development Plan for the area include the following:

4.11.1 Retention of Surplus Land and Development of Unsustainable Settlement Pattern

As stated previously, the amount of land zoned for residential and employment purposes is in excess of the requirements for growth within the plan period. Adopting a Do-Nothing alternative would result in the retention of surplus land for future development which is contrary to current national policy guidelines¹⁶, which requires that surplus land should be identified and then de-zoned, re-zoned or designated as a 'strategic land reserve', set aside for future use.

Considering that there is a surplus of land available for development, over and beyond projected population growth, the current development pattern could result in a dispersed spatial form, whereby land on the extremities of the settlement is developed before land which is adjacent to the existing built up area. This results in an ad-hoc, haphazard and inefficient development pattern, which contributes to the inefficient and costly use of public transport, road, water services and communications infrastructure; which contributes to urban sprawl; and which is contrary to the achievement of a high density mixed use and sustainable urban form. In addition, this pattern results in the unnecessary reduction in natural heritage of the area, interference with biodiversity and a reduction in the visual amenity of the settlement as outer lands which are located to the south and east are located on visible higher gradients, are developed. These effects are likely to be most extreme on lands zoned Action Area 7, Action Area 8, Action Area 11 and Action Area 4 under the 'Wicklow Environs and Rathnew LAP, 2008-2014'.

4.11.2 Failure to Implement European Directives

Since the adoption of the current plans for the area, the requirements of European Directives, including the Floods Directive, Habitats Directive and Water Framework Directive have been integrated into the plan-making system. The continuation of the current plans would result in a failure to address the land use issues which relate to the recent statutory requirements to take account of flood risk, protection of Natura 2000 sites and protection of water bodies.

4.11.3 Action Area 10 of the previous Environs Local Area Plan

It was an objective of the previous 'Wicklow Environs and Rathnew Local Area Plan 2008-2014' to provide a high density mixed use development and Transportation Hub on lands zoned Action Area 10. This objective was in conformity with objectives set out in the 'Wicklow and Environs Integrated Framework Plan for Land Use and Transportation, 2003'. It is no longer an objective of the Roads Section of Wicklow County Council to provide a Transportation Hub at this location. As

¹⁶ 'Implementation of Regional Planning Guidelines: Best Practice Guidance' (DoEHLG, 2010)

such, the previous zoning of AA10 is now out of date. The development of Action Area 10 in accordance with the objective of the 2008 LAP would therefore result in the evolution of the roads and transportation baseline in a manner that is contrary to current policy.

SECTION 5: KEY ENVIRONMENTAL CHALLENGES

Following the scoping exercise, the review of the strategic planning objectives for the Plan, the review of the key policy and statutory instruments that have a relationship with the Plan, and the carrying out of the environmental baseline study, a number of environmental challenges have been identified which are particularly significant. These issues need to be addressed in the preparation of the Plan and in the drafting of Environmental Protection Objectives. These issues include the following:

5.1 SERVICING THE GROWTH OF A HEALTHY POPULATION IN A SUSTAINABLE SETTLEMENT FORM

The amount of land zoned for residential and employment purposes exceeds the amount required to accommodate projected growth. As such, it is a requirement to address zonings that account for this over supply, through measures that may include de-zoning, rezoning or phasing of lands. The lands on which zoning is retained should be lands that are most suitable for development, which best provide a sustainable settlement form, which best serve the economic and social needs of the area, which maximise the best use of existing infrastructure, which provide for a healthy population, and which have the least detrimental environmental effects.

5.2 MAXIMISING THE EFFICIENT USE OF WATER SERVICES INFRASTRUCTURE

It is essential that lands retained for development within the plan area are served by water infrastructure. Taking account of the fact that not all areas of the plan area can be supplied with water, this is a significant environmental issue facing the development of the plan area.

5.3 MAXIMISING THE EFFICIENT USE OF ROADS AND TRANSPORTATION INFRASTRUCTURE

It is essential that lands retained for development within the plan area are served by road infrastructure. In recent years, major infrastructural projects including the Wicklow Port Access and Town Relief road have been undertaken in the town. The Wicklow Port Road has increased accessibility to the port and industrial areas of the town, and has reduced the movement of HGVs through the town, thereby reducing traffic congestion and enhancing the amenity of these areas. The Town Relief Road provides a key transportation spine road that provides access to new development areas to the west of the plan area with the main transportation routes in and out of the settlement. Notwithstanding the objectives included in the existing plan for future road objectives including east west links between the coast road and Marilton Road and a transportation interchange at Rathnew, it is considered that these objectives are no longer achievable within the lifetime of the current plan. As such, it is essential that the lands retained for development are served either by existing infrastructure, or infrastructure that can be developed within the lifetime of the plan.

5.4 PROTECTION OF WATER BODIES

Problems with regard to water quality have the potential for a significant adverse impact upon biodiversity and flora and fauna, drinking water supplies and human health. The European Union Water Framework Directive (WFD) requires that water bodies achieve a 'good ecological status' by 2015. Where possible, the plan should aim to implement land use zonings and objectives that improve water quality.

The Eastern River Basin Management Plan (RBMP) provides details on the environmental pressures that pose a risk to the quality of the water bodies. In general, the most significant threats to water bodies within the RBMP arise from pollution from wastewater treatment systems, industry and agriculture. Having regard to the fact that the plan area is served by a public mains system and a new Wastewater Treatment Plant, it is considered that the threat arising from wastewater treatment systems within the plan area is not significant. However notwithstanding this, spills and leakage from foul water system networks can cause pollution, as evidenced by pollution linked to contamination of the surface water system caused by foul sewer misconnections along the Marlton Stream. In this regard, the water services section of the Council has responsibility for the upgrading of sewer systems as and when required.

Other threats to water quality in the plan area arise from potentially harmful industrial discharges, and nutrient and organic pollution attributed to agriculture. In this regard, there is one IPPC Licensed¹⁷ facility located within the plan area. Crown Timber plc is located in proximity to the environmentally sensitive water body in the Murrough area of the town.

Regard will be paid to ensuring the protection of all areas that are designated on the WFD register of 'protected areas' which are relevant to the study area, including Vartry (River) salmonid waters, Vartry (River) Protected Drinking water area, Wicklow East (protected groundwater drinking supply), and all NHAs, SPAs and SACs.

5.5 PROTECTING THE MURROUGH CSAC AND SPA

The Murrough area is a perhaps the most sensitive area within the plan area. The high vulnerability of the site can be attributed to a combination of the large number of environmental designations and characteristics of the area and the large number of pressures.

Notwithstanding its high vulnerability, the Murrough is an area that faces significant risks. Pressures include urbanisation and encroachment onto open space, disturbance caused from access and recreational pressure, drainage and reclamation, water pollution, and agricultural pressures from which the system is likely to be receiving a high nutrient loading as well as grazing pressure.

An additional significant risk relates the proximity of industrial activities which directly adjoin the eastern boundary of the site. These include the Wicklow Wastewater Treatment Plant, located at Knockrobin, and other industrial activities including a timber yard and waste recycling centre. Risks associated with industrial activities include potentially polluting discharges. In recent years the area has become the subject of unauthorised activities including unauthorised industrial uses, waste disposal or modification of land through infill. Unauthorised activities in the area pose a significant risk to the integrity of the area.

It should be noted that any potential environmental effect arising from the Wicklow Wastewater Treatment Plant is mitigated by the compliance of the Wicklow Sewerage Scheme with the Urban Wastewater Directive. All treated effluent is discharged at a standard that complies with the requirements of the Urban Wastewater Directive.

The SEA process will consider options with regard to reducing, offsetting and avoiding any potential impacts that may result from the proximity of conflicting land uses in the Murrough area,

¹⁷ An Integrated Pollution Prevention Control (IPPC) License is required for certain large scale industrial and agricultural activities. The Environmental Protection Agency (EPA) is the competent authority for granting and enforcing IPPC Licenses. IPPC licenses aim to prevent or reduce emissions to air, water and land, reduce waste and use energy/resources efficiently. An IPPC license is a single integrated license which covers all emissions from the facility and its environmental management.

while the Appropriate Assessment process will provide additional protection to the Natura 2000 sites.

5.6 PROTECTING WICKLOW HEAD SPA AND PNHA

Wicklow Head is an extremely sensitive area within the plan area. Again, the high vulnerability of the site can be attributed to the high number of environmental designations and characteristics. The main pressures on the area arise from recreational pursuits including walking and golfing, erosion of cliff face, and agricultural practices.

5.7 ADDRESSING FLOOD RISK

There is a need to ensure that the plan objectives do not increase flood risk within the plan area or outside. Significant detrimental environmental effects of flooding can include damage to property, soil erosion and damage to vegetation, and deterioration of water quality and habitats, caused by pollutants carried by flood water. Through the appropriate zoning of land and the implementation of measures such as sustainable urban drainage systems, flood risk can be avoided and mitigated.

5.8 PROTECTION OF BIODIVERSITY

There is a need to ensure the protection of biodiversity in the plan area. Biodiversity within the plan area includes designated and non-designated areas. Many biodiversity areas within the Wicklow Town Council area have been identified as urban habitats. In addition, river habitats and trees identified for protection provide additional biodiversity corridors within the plan area. It is essential that where possible, biodiversity areas are retained and enhanced.

5.9 PROTECTION OF SCENIC LANDSCAPES

The settlement of Wicklow Town and Rathnew is located within a scenic landscape. Areas of high visual amenity include lands to the south and southwest of the town, which are located at high gradients, as well as lands located at the Murrough and Wicklow Head. In addition, the plan area includes a number of views and prospects that are listed for protection. It is important that regard is paid to the nature of landscapes in the plan area, the high visibility of hilly areas and potential difficulties in servicing these lands with infrastructure.

5.10 PROTECTION OF BUILT HERITAGE

The plan area has a significant amount of built heritage, including protected structures, national monuments, an Architectural Conservation Area, Zone of Archaeological Potential and a large number of structures that are included on the National Inventory of Architectural Heritage. It is important that growth and development in the plan area does not compromise the integrity of this built heritage.

5.11 CLIMATE CHANGE

In order to achieve commitments made under the Kyoto Protocol, there is a pressing need for all areas in the country to reduce greenhouse gases. In this regard, the plan has a role to play in ensuring that where possible vehicular transport movements are replaced with sustainable transportation movements, thereby leading to a reduction in dangerous emissions and improved air quality. In addition, objectives can be included to promote energy efficient building designs.

5.12 AIR QUALITY

Although air quality in the study area is generally good, environmental nuisance such as dust deposition and odour can impact on amenity of the environment and affect communities.

Nuisance can occur at a local level in the vicinity of industrial, waste and wastewater treatment facilities. The EC Waste Water Treatment (Prevention of Odours and Noise) Regulations 2005 require that waste water treatment plants are designed, constructed and maintained to avoid causing nuisance through odours and noise. The EPA audits the facilities to assess compliance with the Regulations.

5.13 SOIL

There is need for increased awareness of geomorphic sites and their importance in relation to natural heritage. Soil fertility can be degraded through increased urbanisation. Compaction and structural degradation of soils can result from construction, leading to reduced water drainage and aeration capacity and increased risk of erosion, flooding and degradation of flora and fauna.

Well drained and poorly drained soils vary in their capability to absorb runoff. Poorly drained and urban soils have a higher risk of runoff, whilst well drained soils have a lesser risk. Runoff into the area's water bodies has the potential to alter nutrient balances which can lead to the eutrophication of rivers and lakes. In addition, unabsorbed runoff has implications in terms of flood risk in the area.

5.14 RECREATIONAL INFRASTRUCTURE

As the plan area grows in population and the built up area of the settlement extends, it is essential that recreational infrastructure is retained, in order to provide for the recreational use of visitors and citizens, as well as for its recreational and visual amenity value.

SECTION 6: ENVIRONMENTAL PROTECTION OBJECTIVES

Environmental Protection Objectives (EPOs) are measures used to show whether the objectives of a Plan are beneficial to the environment and to compare the environmental effects of alternatives. Targets set aims and thresholds which should be taken into consideration to effectively assess the impact of the Plan on the environment, and indicators are measures used to track the achievements of the EPOs and to monitor the impact of a Development Plan on the environment.

The list of environmental objectives used in this report is based on the environmental factors¹⁸ set out in the SEA Regulations, which might be significantly impacted upon by the plan. They have been devised having regard to the key environmental challenges that face the plan area. The environmental objectives are developed from a protection goal for each environmental topic. These goals are set out in the following table.

Table 6.1: Environmental Goals

Population and Human Health	To provide for population growth on appropriate lands within a healthy, high quality environment
Biodiversity, Flora and Fauna	Maintain and enhance biodiversity
Water Resources	Achieve a 'good' quality status in all water bodies within the plan area, in line with the target dates set out in the Eastern River Basin Management Plan 2009-2015
Material Assets	Make most efficient use of existing infrastructure, particularly water services and transportation infrastructure.
Flooding	Reduce and mitigate flood risk
Cultural Heritage	Protection and conservation of architectural and archaeological heritage

¹⁸ biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and interrelationships between these factors

Landscape	Protect scenic landscapes
Climate	Minimise greenhouse gas emissions
Air Quality	Achieve good air quality
Soils	Maintain quality of soils

The following section sets out the environmental objectives, targets and indicators for the above environmental goals. The information provided in the final column, relating to 'responsible authority/ information source', pertains to details required for the monitoring of the final Development Plan. The monitoring programme is outlined in section 10.

Table 6.2: Population and Human Health: To provide for population growth on appropriate lands within a healthy, high quality environment

Environmental Protection Objective	Target	Indicator	Responsible Authority/ Information Source
PHH1: Plan for projected population up to 2019/2022	Ensure amount of land zoned reflects projected growth targets.	Remove land that accommodates growth beyond population target.	WCC/WTC
PHH2: Promote a high quality living environment	Create compact settlement pattern / sustainable mixed use development. Increase modal shift public transport, walking and cycling. Access to health and education facilities Access to employment	Amount of mixed use developments Sustainable densities Amount of pathways/cycleways. Regularity of trains/buses and degree of route expansion. % change of commuter transport/distances/time Quantity and accessibility of health and education facilities. Amount of jobs	WCC/WTC CSO/Department of Education and Skills/HSE/Department of Jobs, Enterprise and Innovation/ Live Register/ NTA
PHH3: Create a healthy environment	Ensure drinking water is safe/ quality improved Reduce exposure to high levels of air pollution. Minimisation of noise pollution.	Removal of Wicklow Regional Public Supply from EPA Remedial Action List % population exposed air pollutants including Nitrogen Oxides (NOx) and particulate matter (PM10). %population exposed to high noise, and in	EPA WCC/WTC HSE

		particular levels beyond the relevant standards	
PHH4: Access to amenity and recreational space	Improve accessibility to and quality of amenity spaces	Changes in the amount/type/location of recreational facilities	WCC/WTC

Table 6.3: Biodiversity, Flora and Fauna: Maintain and enhance biodiversity

Environmental Protection Objective	Target	Indicator	Responsible Authority/ Information Source
BIO1: Conserve the diversity of protected habitats and species on designated sites.	Protection of Natura 2000 sites. Protection of pNHAs Protection of protected trees	Achievement of conservation objectives of designated sites. Amount of TPOs.	NPWS WCC/WTC
BIO2: Conserve the diversity of habitats and species in non-designated sites	Protection of urban habitat site Improve protection for important undesignated habitats, particularly urban wildlife corridors. Protect habitats from invasive species	% loss of non designated natural habitats including Trees hedgerows Public open space Recreation/amenity areas. Surveys with regard to numbers and types of invasive species.	NPWS WCC/WTC
BIO3: Protect river habitats	Protection of river and riverside habitats	% habitat/species loss in river/riverside habitats over lifetime of plan.	NPWS WCC/WTC

Table 6.4: Water Resources: Achieve a 'good' quality status in all water bodies within the plan area, in line with the target dates set out in the Eastern River Basin Management Plan 2009-2015

Environmental Protection Objective	Target	Indicator	Responsible Authority/ Information Source
WAT1: Improve water quality of surface waters to status objectives as set out in the Water Framework Directive	For all river water bodies and transitional water body to achieve WFD 'good' quality status by 2015, and to retain the high status of the coastal water body.	Changes in receiving water quality as identified during water quality monitoring for the WFD conducted by WCC and EPA	EPA WCC/WTC Eastern River Basin District Project
WAT2: Protect Vartry River of salmonid importance	Improve Biotic rating (Q value) of Vartry Lower water body from current moderate status (Q 3-4) to good status (Q4).	Biotic quality rating of river waters at EPA monitoring locations	EPA WCC/WTC Eastern River Basin District Project
WAT3: Prevent pollution of groundwater	Improvement or at least no deterioration in groundwater quality, so that good status of Wicklow East groundwater body is	Changes in groundwater quality as identified in monitoring programmes conducted by WCC and EPA	EPA WCC/WTC Eastern River Basin District Project

	retained.		
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Table 6.5: Material Assets: Make most efficient use of existing Infrastructure, particularly water services and transportation infrastructure.

Environmental Protection Objective	Target	Indicator	Responsible Authority/ Information Source
MAT1: Make best use of existing water services infrastructure	Promoting development at locations served by existing water services infrastructure Reduce amount of unaccounted for water in the Wicklow Regional Public Supply from 32% to reduce level of unaccounted water to 22%.	Amount of new water services infrastructure. Changes in levels of unaccounted water, as monitored by WCC.	WCC/WTC/ Department of Environment, Community and Local Government
MAT2: Make the best use of existing road and transportation infrastructure	Promoting development at locations served by existing road and transportation infrastructure	Amount of new developments located along existing roads and transportation infrastructure.	WCC/WTC NTA

Table 6.6: Flooding: Reduce and mitigate flood risk

Environmental Protection Objective	Target	Indicator	Responsible Authority/ Information Source
FL1: Avoid and mitigate river and coastal flood risk	Promote development in accordance with Flood Risk Assessment All new developments to incorporate SUDS design.	Number and type of developments in flood risk areas. Provision of SUDS compliant drainage plans for proposed developments in study area.	OPW WCC/WTC

Table 6.7: Cultural Heritage: Protection and conservation of architectural and archaeological heritage

Environmental Protection Objective	Target	Indicator	Responsible Authority/ Information Source
CUL1: Protect and enhance architectural heritage, including structures on RPS and structures in Architectural Conservation Area	No loss in value of architectural heritage	Number of developments which enhance/ diminish the character and setting of architectural heritage	WCC/WTC Department of Arts, Heritage and the Gaeltacht
CUL2: Protect and enhance archaeological heritage including features identified on Record of	No loss in value of archaeological heritage.	Number of developments which enhance/ diminish the character and setting of archaeological heritage	WCC/WTC Department of Arts, Heritage and the Gaeltacht

Places and Monuments and Zone of Archaeological Potential			
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Table 6.8: Landscape: Protect scenic landscapes

Environmental Protection Objective	Target	Indicator	Responsible Authority/ Information Source
LAN1: Protection of listed views and prospects	No significant disruption of designated views and prospects	Number of developments located within the designated views and prospects.	WCC/WTC
LAN2: Protect visual amenity of scenic and highly visible landscapes, including the Murrough, Wicklow Head, Ballyguile, and upper slopes of Convent lands.	No development affecting highly visible and scenic landscapes	Number of developments located on sites that compromises visual amenity of these landscapes.	WCC/WTC

Table 6.9: Climate: Minimise greenhouse gas emissions

Environmental Protection Objective	Target	Indicator	Responsible Authority/ Information Source
CLIM1: Minimise greenhouse gas emissions to meet National and International standards	Provide for increased use of public transport Increase number of cycle lanes and pedestrian routes in study area. Renewable energy projects	Use of public transport Provision of cycle lanes and walking routes Number of permissions granted for renewable energy projects	NTA WCC/WTC EPA
CLIM2: Achieve environmentally friendly building designs.	Compliance with Part L (Amendment) of the Building Energy Regulations S.I. No.259 of 2008	Amount of properties meeting targets.	WCC/WTC

Table 6.10: Air Quality: to achieve good air quality

Environmental Protection Objective	Target	Indicator	Responsible Authority/ Information Source
AIR1: Protect good air quality status and minimise the output of Nitrogen Oxides (NOx) and Particulate matter (PM10)	Meet value targets for names pollutants in line with Air Quality Framework Directives Maintain or improve ambient air quality through reduction private vehicle usage.	Values of monitored pollutants in the air, including levels of Nitrogen Oxides (NOx) and Particulate matter (PM10). % changes in amount of car use.	EPA NTA CSO

Table 6.11: Soils: Maintain quality of soils

Environmental Protection Objective	Target	Indicator	Responsible Authority/ Information Source
SOIL1: Maximise the sustainable re-use of brownfield sites and maximise the use of the existing built environment	Development of brownfield sites during the lifetime of the plan.	Number of new developments on brownfield sites.	Geological Survey of Ireland EPA WCC/WTC

SECTION 7: CONSIDERATION OF DEVELOPMENT PLAN ALTERNATIVES

This section includes a consideration of the alternatives in the preparation of the Plan. Alternatives are required to be reasonable and to take account of the overall planning strategy for the plan area and the geographical scope of the plan area. The environmental effect of implementing the alternatives is considered, having regard to the environmental goals for the Environmental Protection Objectives set out above.

7.1 DESCRIPTION OF ALTERNATIVES

Each of the alternatives is required to be reasonable, and to be in accordance with the overall development strategy for the area. Accordingly, the alternatives comply with the following key components of the overall development strategy, as set out in the Core Strategy and Vision of the Plan:

- It is estimated that c.227.5ha of residential land is required to be zoned for housing use, in order to meet a projected population of 5662 units. It is necessary to remove surplus zoned land for housing.
- In order to meet the required employment allocations, it is estimated that c.125ha of land is required to be zoned for employment use. As with housing, there is currently a surplus of employment zoned land in the plan area. Surplus zoned land for employment purposes should be removed.
- In accordance with the County Wicklow Retail Hierarchy, the Plan is required to re-enforce Wicklow Town's status as a Level 2 County Town retail centre and Rathnew's status as a Level 4 local centre.
As the amount of currently zoned land for retail use in Action Area 6 is in excess of that required for Wicklow Town, each alternative includes a proposal to rezone this land to residential use with ancillary Neighbourhood Centre and Community use. In addition, in each alternative, the proposed Neighbourhood Centre on AA9/AA5 lands has been relocated to a more suitable location at Ashtown Lane/Rocky Road crossroads.
- The natural and built heritage of the plan area should be protected.
- The identity of Rathnew as a separate stand alone entity in the wider settlement is to be re-enforced.

While the Core Strategy Guidelines identifies three options to address the issue of surplus zoned land (i.e. strategic land reserve, re-zone or de-zone), the following alternatives include proposals for either de-zoning and/or re-zoning land, as the preferred options.

7.1.1 Alternative 1: Most Environmentally Friendly Option

This alternative sets out a development strategy that aims to achieve a high level of protection to the environment. This alternative is illustrated in Figure 7.1 and key components of it are described below:

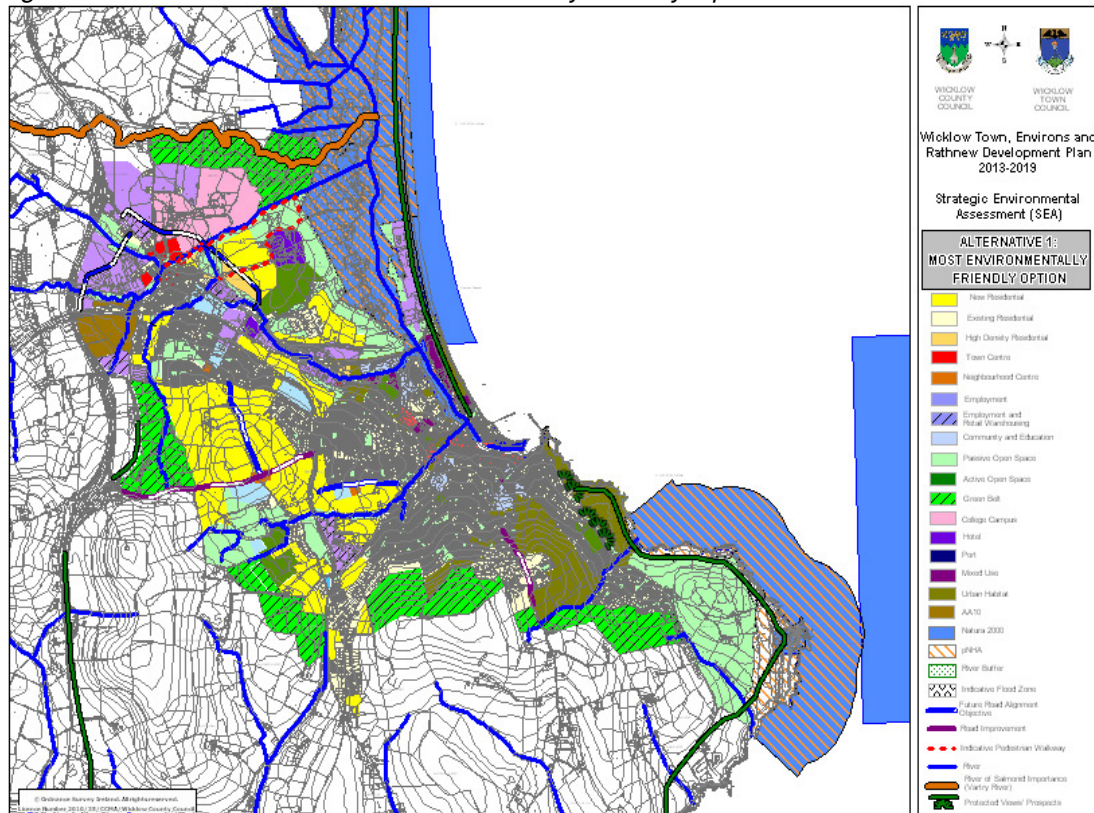
- In order to provide a high degree of protection to Natura 2000 sites, the Area of Conservation (AC) zone has been removed and a new zone, the Natura 2000 zone, is

introduced to reflect lands that are designated cSAC or SPA. The objective of this zone is to preserve and improve the integrity of the Natura 2000 site and to prohibit development that adversely affects the integrity of the Natura 2000 site, in light of the site's conservation objectives. Lands designated pNHA's are included in a new pNHA zone, with an objective to preserve and improve the integrity of pNHAs.

- In order to aid the protection of Natura 2000 sites and to avoid encroachment, open space buffer zones have been introduced on lands adjoining the Natura 2000 sites, including Tinakilly hotel area to west, employment/Murrough area to east and the rezoning of Active Open Space to Open Space at Wicklow Head.
- To ensure that recreational use is directed away from sensitive areas, the walking route extending from Tinakilly House is removed from the Natura 2000 site.
- A green belt has been introduced on lands at the edges of the plan area. These green belt areas reflect land of high gradients which is highly visible, land of key importance in the protection of listed prospects, lands with rivers and flood prone areas and lands that act as a buffer to Natura 2000 sites.
- In order to protect riparian habitats, a 10m buffer has been introduced along all rivers, where possible. A 15m buffer was introduced for Vartry River which is a river of salmonid importance. These buffers are introduced in a new zone 'River Buffer'.
- In order to protect the biodiversity of non-designated sites, a new zone 'urban habitat' is introduced on all lands covered by the Wicklow Urban Habitat Mapping Study 2008.
- In order to protect against flood risk, an indicative flood risk area¹⁹ is indicated, and the zonings of these lands has been changed to open space, where possible.
- In order to protect urban biodiversity and to preserve public open space areas, public open space in housing estates has been zoned 'open space'.

¹⁹ The indicate flood risk area identified in this alternative represents a cursory assessment of lands that may be of flood risk. The assessment represents lands that have an alluvial soil type and which are identified as being of flood risk under the Wicklow Town River Analysis. A detailed assessment of flood risk is included in the Flood Risk Assessment, which has been undertaken at a time post dating the assessment of this alternative.

Figure 7.1: Alternative - the Most Environmentally Friendly Option

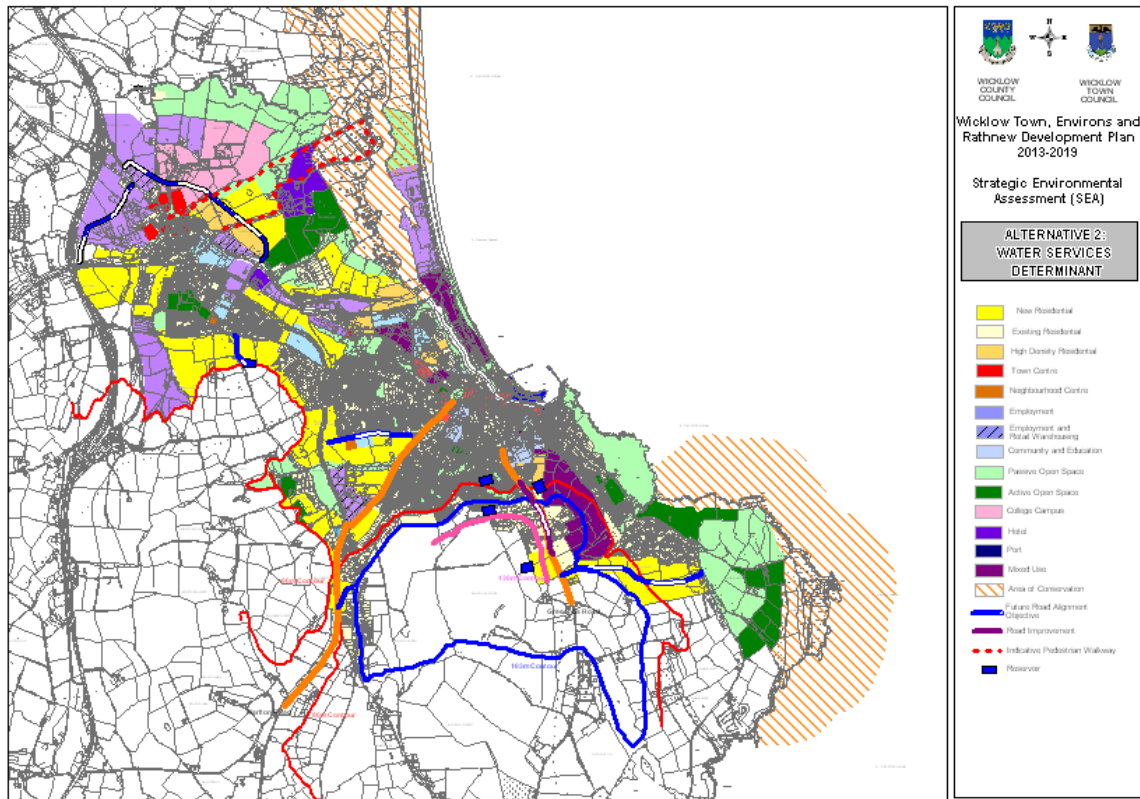


7.1.2 Alternative 2: Water Services Determinant

In this alternative, land that cannot be served by water services infrastructure is removed from the development strategy and is de-zoned. This alternative is illustrated in Figure 7.2 and its key components are described below:

- On lands north west of Marlton Road, water can only be supplied up to a maximum height of 80m. Zoned lands above this contour are removed.
- On lands south east of Marlton Road, water can only be supplied up to a maximum height of 103m. Zoned land above this contour is removed, excluding existing developed areas and those lands in proximity to the Mariner's Point reservoir (considered below).
- On lands in the immediate vicinity of Greenhills Road, water can only be supplied up to a maximum height of 130m. At the Mariners Point Estate, there is a small part of existing residential zoned land that is at a height over 130m. As these lands are located in direct proximity to Mariners Point Reservoir (located at c.150m), these lands can be supplied with water and the existing zoning has been retained.
- In order to ensure that the amount of land zoned for employment use does not exceed 125ha of land, the Employment and College Camus zonings at AA11 have been omitted and replaced with Open Space. The Mixed Use zoning at AA10 has been omitted and replaced with a Residential zoning and the Employment and Retail Warehousing zoning at Broomhall has been omitted.

Figure 7.2: Alternative 2 - Water Services Determinant



7.1.3 Alternative 3: Roads and Transportation Determinant

This alternative has been devised with the following key objectives in mind:

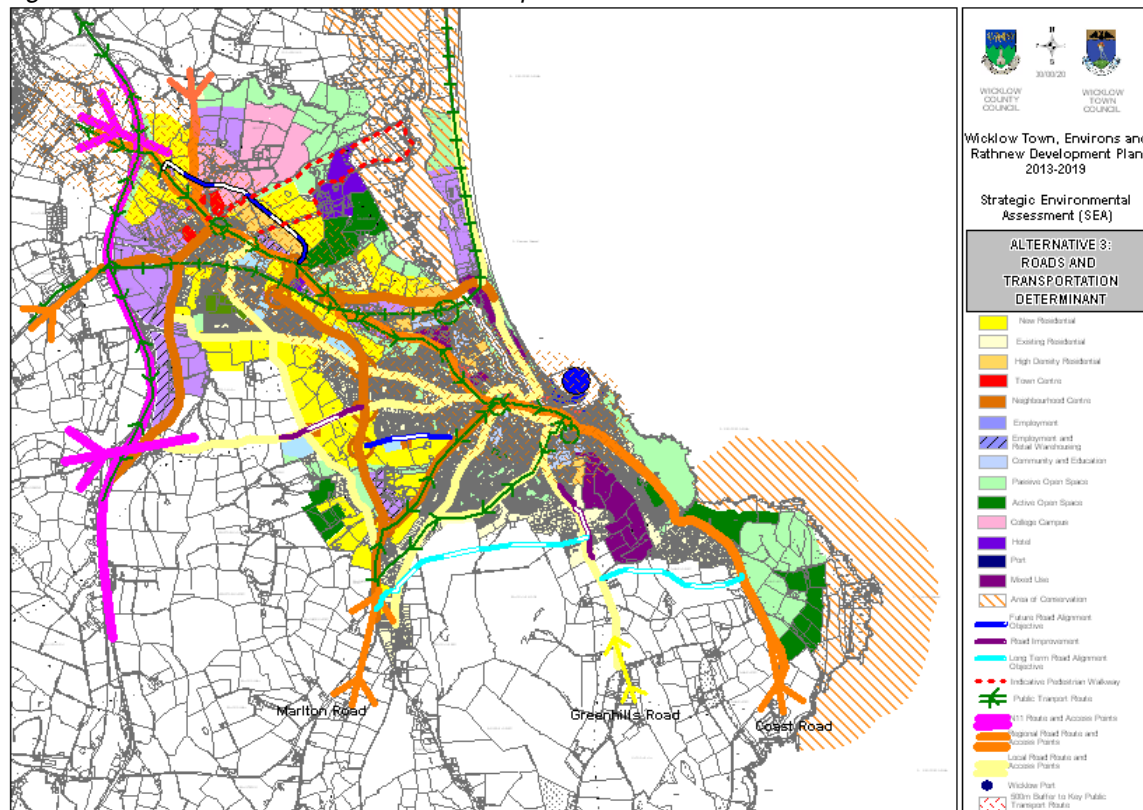
- Achieving the maximum use of land that has access to the Town Relief/ Port Access routes and the main route from the M/N11 into town via Rathnew.
- Achievement of the employment strategy as set out in Wicklow County Development Plan, which states that the settlement should target both product and people intensive industries. In summary,
 - product based industries are best located at sites with easy access to the main transportation routes – as such, land with best access to M11 is zoned Employment; and
 - people based industries are best located on lands with easy access to the main public transport corridors – as such, land with best access to the main public transport route is designated for housing/College Campus/ TC/ high density use.

This alternative is illustrated in Figure 7.3 and its key components are described below:

- The current Wicklow Environs and Rathnew LAP 2008-2014 includes an objective for the development of developer funded roads through Action Area 7 and Action Area 8. As the cost of providing these roads is likely to outweigh the benefit yielded from the construction of houses, it is unlikely that this objective can be realistically achieved. As such, this alternative includes the omission of this objective and the omission of land zonings that are dependent on these roads. As it remains an aspirational objective of the Council to provide an east west link between the Coast Road and the Marlton Road, a long term roads objective for the provision of links in this area is included (to reflect that it is not likely to be developed within the lifetime of this plan).
- The current Wicklow Environs and Rathnew LAP 2008-2014 includes an objective for the development of a new road in Action Area 4. The infrastructural difficulties involved in

- constructing a road over the hill at Ballynerrin Upper is likely to constrain the achievement of this objective. As such, this alternative removes the objective for a road through AA4 and consequently removes land zonings dependent on this road objective.
- The current Wicklow Environs and Rathnew LAP 2008-2014 includes an objective for the development of public transportation hub at Rathnew. It is no longer an objective to provide this transportation hub. This alternative omits the objective for the transportation hub and replaces the accompanying high density mixed use zoning that with an Employment use zone.
 - In order to promote appropriate land uses on lands with most direct access to the key public transport corridor in the area, Employment zoned lands are rezoned to Residential use at appropriate sites at Newrath, Milltown and Merrymeeting. An Open Space buffer between the N/M11 and the new residential zoned area is introduced to safeguard residential amenity.
 - The objective for the development of a new road along Ashtown Lane (Action Area 5) has been removed, as a roads objective is not considered necessary having regard to the fact that roads in AA5 are likely to be secondary estate type roads that provide direct access to houses. Similarly, the roads objective for a future road within E zoned land west of Rathnew has been removed as roads within this area are likely to be secondary estate type roads.
 - Part of the roads objective for road improvement along Rocky Road has been removed to reflect removal of zoned land in this area.

Figure 7.3: Alternative 3 – Roads and Transportation Determinant



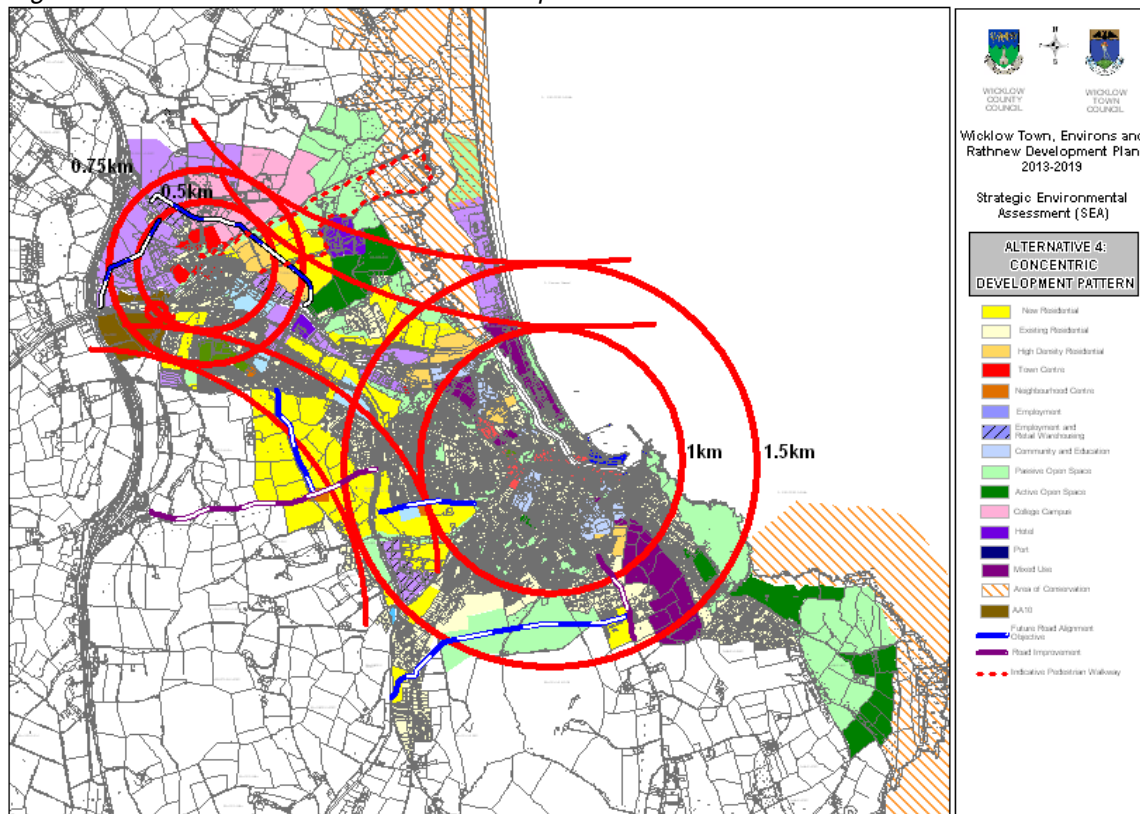
7.1.4 Alternative 4: Concentric Development Pattern

This alternative sets out a development strategy that aims to achieve a concentric and compact settlement form. This alternative is illustrated in Figure 7.4 and its key components are described below.

The concentric model is based on an urban form whereby urban expansion is determined by a model whereby the spatial strategy of the settlement extends in a radial pattern outwardly from the centre. A key component of the overall strategy relates to promoting Wicklow Town and Rathnew as separate urban entities within an overall symbiotic settlement structure. As such, the concentric pattern is based on two centres, Wicklow being the primary centre and Rathnew the secondary centre. Under this model, the outward limit for the spatial structure of Wicklow and Rathnew is 1.5km and 0.75km respectively. The spatial element of each settlement is linked by a transportation corridor, within which the main transportation spine for the settlement is located.

Under this alternative, lands within the concentric spatial structure and within the transportation corridor have been retained for the accommodation of future growth and development. Lands at the outer edges of the boundaries of the structure are considered to be less suitable for development and the zonings have been removed. This alternative consolidates the land use pattern of the settlement, resulting in a more compact form which encourages the efficient use of land, the development of mixed use and walkable neighbourhoods and a reduction in the need for additional infrastructure.

Figure 7.4: Alternative 4 – Concentric Development Pattern



7.2 ENVIRONMENTAL ASSESSMENT OF ALTERNATIVES

The following environmental assessment includes a strategic examination of the alternatives with a view to identifying a preferred strategy for the Plan, which is most likely to achieve the environmental goals. In addition, the assessment examines locations where environmental consequences are likely to be highest and which would therefore require the introduction of mitigation measures.

7.2.1 Evaluation of Alternatives

The above alternatives have been evaluated at a strategic level, through an assessment that measures the compatibility of each alternative with the environmental goals. The findings of this assessment are summarised in Table 7.1 and are described below.

Table 7.1: Compatibility of Alternatives with SEA Environmental Goals

Alternative	SEA Environmental Goals									
	Population and Human Health	Biodiversity, Flora and Fauna	Water Resources	Material Assets	Flooding	Cultural Heritage	Landscape	Climate	Air Quality	Soils
1. Most Environmentally Friendly										
2. Water Services Determinant										
3. Roads and Transportation Determinant										
4. Concentric Development Pattern										

	Alternative is consistent with environmental goal
	Alternative is highly consistent with environmental goal
	Alternative is in conflict with environmental goal
	Neutral/ Uncertain

From a strategic environmental perspective, Alternative 1 – The Most Environmentally Friendly option, is considered to be most beneficial to the protection of the environmental integrity of the plan area, and as such, in theory, should form the ‘preferred strategy’ for the preparation of the Plan. This alternative is consistent and highly consistent with a large number of goals. However, the dispersed nature of this settlement pattern renders the goal to maximise the efficient use of existing infrastructure, unachievable. Considering the particular significance of this goal for the plan area, this is a major shortfall of this alternative. In addition, the dispersed nature of this settlement form allows for increased journey lengths and is likely to contribute to an increased amount of greenhouse gas emissions.

As demonstrated by the examination of the theoretically ‘preferred strategy’, it is clear that there are associated costs and benefits with following any one of these alternatives. As such, the ‘preferred strategy’ for the Plan is likely to reflect a combination of different parts of the alternatives, rather than strict adherence to one.

The preparation of a Plan with the most beneficial effect on the environment should incorporate the best aspects of the four alternatives. In order to achieve the environmental goals, the Plan should incorporate the following combination of the various alternatives:

Population and Human Health

To achieve the goal to provide for population growth on appropriate lands within a healthy and high quality environment, the strategy proposed in any one of the alternatives could be adopted. In strategic terms, each of the alternatives provide sufficient land to provide for the future growth of the settlement and removes surplus land which is not required within the Plan period. Each alternative, in general terms would contribute to the creation of a healthy and high quality environment.

Biodiversity, Flora and Fauna

Although each alternative would result in the maintenance and enhancement of biodiversity, the Most Environmentally Friendly alternative has been prepared with strict adherence to environmental goals and as such results in the highest degree of environmental protection. This alternative affords strict protection to designated and non-designated sites, including Natura 2000 sites, pNHAs, urban habitats and riparian habitats; and introduces green belt areas and more public open space areas. It is clear that this alternative would provide for the better achievement of this environmental goal, and as far as possible, the proposals in this alternative for the protection of biodiversity, flora and fauna should be carried forward to the Plan.

Water Resources

The Most Environmentally Friendly alternative is the only alternative to introduce significant measures for the achievement of a 'good' quality status in water bodies in accordance with the Eastern River Basin Management Plan 2009-2015. These measures include the introduction of a new River Buffer zone and the introduction of wider open space areas along the river systems. Where possible, these measures should be carried forward to the Plan.

Material Assets

A key goal of this Plan is to maximise the use of existing infrastructure, particularly water and transportation infrastructure. Alternatives 2 and 3 have been prepared in accordance with this goal. The Plan should be prepared in accordance with the elements of these alternatives which contribute to the achievement of this goal, namely the zoning of land which can be supplied by water and which can be best served by existing roads and public transport facilities.

Flooding

The Most Environmentally Friendly alternative is the only alternative that has been prepared taking account of the Planning System and Flood Risk Guidelines 2009. Where possible, this alternative has designated land at likely flood risk for open space purposes. Where possible, the Plan should be prepared in accordance with the elements of this alternative which aim to reduce and mitigate flood risk.

Cultural Heritage

There is no significant difference between alternatives in terms of the degree to which architectural and archaeological heritage is protected and conserved. As such, the adoption of any such alternative could achieve this goal, subject to objectives being included in the written statement for the protection and conservation of architectural and archaeological heritage.

Landscape

Each alternative, to varying degrees, achieves the goal to protect scenic landscapes. Each alternative results in the protection of listed views/ prospects, as land affected or lands which form the foreground of protected views are either de-zoned or re-zoned open space in order to keep

these lands free from development. An important element in the landscape of Wicklow is the hilly nature of lands to the south and southeast of the settlement, with land reaching a level of 130m at Dunbur Lower, 180m at Ballyguile More, 110m at Ballynerrin Upper and 180/200m at Hawkstown. In addition, the upper slopes of the Convent Lands, the Golf Links and the Murrough and coastal area contribute to the scenic quality of the town. These lands are highly visible and contribute to the visual amenity of the area. The Most Environmentally Friendly alternative includes proposals for the rezoning of high lands as Greenbelt, Open Space and Urban Habitat and consequently removes objectives for the development of new roads in these areas. These elements of this alternative contribute to the greatest achievement of the goal to protect scenic areas of the settlement, and as such these elements should be included, where possible, in the Plan.

Climate

Alternative 3 introduces measures which aim to minimise greenhouse gas emissions. This alternative promotes a compact urban form which reduces the need for vehicular travel, thereby resulting in a reduction of harmful vehicle based emissions. This urban form should, where possible, be incorporated in the Plan.

Air Quality

There is a significant link between the goal to achieve good air quality and the goal to minimise greenhouse gases. As with the above assessment for 'Climate', the goal to achieve good air quality can be best achieved through proposals set out in the Roads and Transportation alternative and the Most Environmentally Friendly alternative.

Soils

Each alternative has a positive impact in terms of maintaining the quality of soils in the area. Alternatives 2, 3 and 4 promote a more compact urban form which reduces urban sprawl and the spread of development onto undeveloped lands. As compaction and runoff resulting from development can be detrimental to the quality of soils, these three alternatives all reduce the pressure on soils in the area and make a positive contribution to maintaining soil quality in the area. Although the Most Environmentally Friendly alternative promotes a more dispersed settlement pattern, it makes a significantly positive contribution as biological activity is a primary factor in the physical and chemical formation of soils. As this alternative protects and conserves biodiversity, it consequently impacts positively on the quality of soils.

7.2.2 Cumulative Environmental Assessment of Alternatives

In order to aid in the assessment of how the alternatives may impact on the environment of the plan area, a cumulative environmental assessment has been undertaken using Geographical Information Systems. The cumulative environmental assessment is a measure of the likely effect on the environment of implementing the plan. The assessment is a measure of the degree of environmental sensitivity of a particular site multiplied by the likely effect of the type of development permitted by virtue of a zoning objective. The assessment is a useful tool for undertaking comparisons between the environmental effect of alternatives, and in highlighting areas that require mitigation measures.

To carry out this assessment, it is necessary to assign each land use type with a weighting. This weighting system is outlined in Table 7.2 below and is based on the level of potential impact that each type of land use is perceived to generally have on the receiving environment. As shown on the below table, zonings with a weighting of 1 include land uses with objectives that aim to prevent interference with the natural landscapes, while zonings with a weighting of 6 include land uses that are intense in nature and which are likely to have the highest impact on the environment.

Table 7.2: Weighting According to Perceived Impact on Environment of Zoning

Zoning		Weighting
Natura 2000	Natura 2000	1
pNHA	pNHA	1
River Buffer	River Buffer	1
Urban Habitat	urban habitat	1
Area of Conservation	AC	1
Passive open Space	OS	2
Active Open Space	AOS	2
Green Belt	GB	2
Community and Education	CE	3
New Residential	R	4
Existing Residential	R	4
High Density Residential	R2	4
Employment	E	5
Employment and Retail Warehousing	E1	5
College Campus	CC	5
Local Objective M1		5
Town Centre	TC	6
Neighbourhood Centre	NC	6
Port	Port	6
Hotel	H	6
Mixed Use	MU	6
AA10	AA10	6

1 – Low Impact

6 – High Impact

In addition to the weightings attached to the zonings, the assessment involves the use of the baseline map of environmental sensitivities. This map attached a weighting ranging from 0 to 20 to each piece of land in the plan area, whereby 0 represents a low environmental sensitivity and 20 represents a high environmental sensitivity.

A Geographical Information System (GIS) application was then used to overlay the land use maps set out in the alternatives on top of the baseline map of environmental sensitivities. For each pixel of land in the plan area, the GIS system multiplied the weighting attached to the baseline map by the weighting attached to the zoning map. The final score represents the likely impact on the environment of implementing a plan alternative. The results of this cumulative assessment are graphically illustrated on the maps set out in Figures 7.5, 7.6, 7.7 and 7.8. On these maps:

- a score of 1-2.5 represents land where there is an extremely low impact on the environment. Land with a low impact requires the introduction of a low level of mitigation;
- a score of 2.5-7.5 represents land where there is a medium impact on the environment, and which requires some degree of mitigation; and
- land with a score higher than 7.5 represents land where there is a higher level on the environment, and which requires a high degree of mitigation.

It should be noted that notwithstanding the fact that 7.5 is a low score compared with a total maximum score of over 50, a precautionary approach has been adopted whereby only lands with an exceptionally low impact on the environment escape with a low or medium level of mitigation. This ensures an extremely high level of environmental protection within the plan area.

As the cumulative environmental assessment is based on assumptions regarding impact on the environment, it should be noted that this assessment should only be used to enable a strategic overview of the environmental impact of the varying alternatives, rather than a definitive assessment.

Interestingly, the results of the assessment indicate that, subject to minor variations, there is no significant difference between the site specific environmental impacts of the alternatives. The results indicate a degree of conformity across the alternatives, whereby each alternative highlighted the same sites that have characteristics and proposed zonings that are likely to result in higher environmental consequences. At these locations, it is essential that mitigation policies are introduced to avoid, offset or reduce any potential negative effects on the environment. A description of these locations are included below:

The Murrough

On the baseline map of environmental sensitivity, the Murrough area is the area of highest environmental sensitivity. Taking account of this, a low risk zoning objective has been adopted in each of the alternatives, with a zoning of either Area of Conservation or Natura 2000 site/ pNHA site. Notwithstanding the fact that the zoning objectives safeguard the integrity of this valuable area, the effect of the extremely high sensitivity, has the consequence of attributing the area with a high combined score of environmental impact, which requires mitigation. On the basis of this assessment, it is clear that the highest degree of environmental mitigation has been afforded to this site, by virtue of the acceptability of the proposed zoning objectives.

It should be noted that as the assessment is point specific, it does not take account of the effect that adjoining land uses may have on this highly sensitive area. The location of potentially polluting industrial developments in such close proximity to a Natura 2000 sites is undoubtedly undesirable. It is essential that the Plan incorporates strong mitigation policies to avoid potential damaging effects on the Natura 2000 sites. The Most Environmentally Friendly Option proposes mitigation measures, including the introduction of an expanded open space buffer to the Natura 2000 site at locations on the eastern and western flanks of the site.

Wicklow Head

On the baseline map of environmental sensitivity, Wicklow Head is an area of very high environmental sensitivity. Taking account of this, a low risk zoning objective has been adopted in each of the alternatives, whereby land is zoned Natura 2000 site/pNHA/ Area of Conservation. On each alternative, open space zonings are located west of the designated sites, forming an ecological buffer. It is important that mitigation policies are included to have regard to protected views and prospects in this area and protected monuments.

Employment Zones at Rathnew

On each alternative, lands at Rathnew, and north and east of Rathnew, are shown to have environmental consequences that require a high level of environmental mitigation. This is a reflection of the zonings in the area for intensive uses including town centre, employment, college campus and high density residential. It is important that mitigation measures are put in place to address any potential detrimental effects that these uses can have on the environment. Key environmental sensitivities in this area include the Rathnew Stream and associated tributaries. The 'Most Environmentally Friendly' alternative includes Open Space/River Buffer areas, directly adjoining these water bodies, in order to safeguard river systems from pollutants and run off attributed to development, particularly industrial development.

Wicklow Town

On each alternative, the core retail area of Wicklow Town is shown to be an area that requires a high level of environmental mitigation. This is a consequence of the intensive nature of town centre zoning objectives and the large number of environmental sensitivities in this area, namely the Area of Conservation, Zone of Archaeological potential and protected structures. It is essential that mitigation objectives are included in the Development Plan to reflect these environmental sensitivities.

Convent Lands

On each alternative, with the exception of the Most Environmentally Friendly alternative, the Convent Lands are shown to require a high level of environmental mitigation. This is a consequence of the intensive nature of the Mixed Use zoning objective for these lands, in combination with its level of environmental sensitivity, which is attributed mainly to its designation as an urban habitat.

In interpreting this result, regard needs to be paid to the results of the Wicklow Urban Habitat Study, which categorises the majority of this site as being a habitat of low species richness with an overall value of low to medium importance, attributed to the role it plays as a large green space within the town's urban boundary. In addition, regard should be paid to the current development strategy for the Convent Lands, as set out in the Wicklow Town Development Plan 2007-2013, which protects the function of these lands as a 'green lung' in the town, whereby the upper slopes are to be retained as a 'green' backdrop to the town.

Having regard to the zoning objective for the zone, it is clear that mitigation objectives are currently in place to protect the amenity and natural heritage of this site. The new Plan adopts a similar approach in ensuring the biodiversity of this important site is safeguarded, as much as possible, whilst having regard to its strategic location and potential role in providing for the future housing and community needs of the town.

Rivers

In all alternatives, the river systems of the area are shown to require a higher level of mitigation. Where possible, it is essential that the Plan includes open space/river buffers in order to safeguard as much as possible these systems from possible sources of pollution arising from run off and discharges from developments located in close proximity. In existing built up areas, mitigation objectives are required to be included to appropriately deal with run off. The introduction of objectives to promote Sustainable Urban Drainage Systems (SUDS) is particularly important in this regard.

Lands at Broomhall affected by Listed Prospect No.29

In the Most Environmentally Friendly and the Water Services alternative, lands affected by Listed Prospect no.29 are shown to require a high level of mitigation. This result is a consequence of the zonings in this area for residential/employment use and listed prospect no.29, which protects views from the route of the old N11 towards the Murrough and the sea.

In considering this result, regard should be paid to the fact that although the view has a wide spectrum; for the purpose of this assessment, the view is spatially represented on lands only in the immediate foreground of the view. The Most Environmentally Friendly alternative aims to prohibit development in the immediate foreground of the view through the introduction of an Open Space zoning objective. It is essentially that the Plan includes objectives to ensure that listed prospects are protected.

7.3 DIFFICULTIES ENCOUNTERED IN THE CONSIDERATION OF ALTERNATIVES

The SEA Regulations require a consideration of the difficulties encountered in the consideration of alternatives. There were no significant difficulties faced in the compilation of information required to undertake the SEA assessment, or in the technical expertise of the review team. Notwithstanding this, the lack of local level spatial quantitative data for some baseline indicators, including for example, population, health, climate and air, has reduced the reliability and validity of results relating to the assessment.

SECTION 8: ASSESSEMENT OF LIKELY ENVIRONMENTAL EFFECT OF THE WICKLOW TOWN- RATHNEW DEVELOPMENT PLAN 2013-2019

This section of the Environmental Report is an assessment of the ‘likely significant’ effects of the Wicklow Town- Rathnew Development Plan 2013-2019 on the environment. This assessment has been undertaken through a determination of the ‘likely significant’ impact of the objectives of the Plan on the Environmental Protection Objectives (EPOs) set out in the Environmental Report.

The assessment carried out was primarily qualitative in nature, based on the expert judgement of the SEA/AA and plan-making team. A precautionary approach was adopted in undertaking the assessment, whereby, in the absence of scientific certainty, a prudent approach to be taken in the protection of the environment.

The methodology for the carrying out of this assessment is in accordance with the ‘Implementation of SEA Directive: Assessment of the Effects of Certain Plans and Programmes on the Environment: Guidelines for Planning Authorities’ (DoEHLG, 2004). An SEA Assessment Matrix is set out in the attached Appendix, on which the Plan’s development objectives are listed on one axis and the Environmental Protection Objectives (EPOs) are listed on the other axis. Potential effects of the Plan on the EPOs are determined as follows:

Significance of Impact	
	Positive ²⁰
	Negative ²¹
	Negative impact mitigated
	No significant relationship/neutral/ Uncertain
C	Cumulative ²² – Impact that is ameliorated by other impacts

The SEA Assessment Matrix includes a column headed ‘comments’, which describes the reasons why a negative impact has been identified and an additional column to identify the environmental objectives that mitigate the negative impacts.

A summary of the findings of the SEA Assessment Matrix is set out in the following section. While the majority of impacts were found to be either positive or neutral, particular attention has been paid to the identification of Plan objectives that conflict with the EPOs of the Environmental Report, and the measures that have been adopted to mitigate or offset these effects.

8.1 POPULATION AND HUMAN HEALTH

Overall, the SEA matrix indicates that the Plan has a positive or neutral impact on the EPO to provide for population growth on appropriate lands within a healthy and high quality environment. Of key importance to the achievement of this objective is the fact that the Plan provides enough zoned land to meet the needs of projected population targets for the lifetime of the current plan. Current zoned land that is surplus to the requirements of this projected population has been re-zoned and retained in a Strategic Land Bank, to provide for future phases of development after the lifetime of the plan (refer to Section 1.3.2 of this report for full details). The retained zonings are located on lands that can be serviced and which are closest to the centres of Rathnew and Wicklow. This results in the promotion of a compact urban form and a sustainable transportation and land use pattern, which reduces the need to travel and which provides access to housing, employment, health, educational and amenity space. This development pattern consequently promotes a healthy and high quality living environment.

²⁰ A positive impact improves the quality of the environment

²¹ A negative impact diminishes the quality of the environment.

²² Cumulative impacts are considered to be any impacts that expand and compound over time, e.g. the improvement of water quality over time would have a cumulative and positive impact on biodiversity as ecosystems improve which could also have a cumulative effect on landscape.

8.2 BIODIVERSITY, FLORA AND FAUNA

One of the most important Environmental Protection Objectives is that which relates to the protection of biodiversity. Overall, the SEA matrix indicates that the Plan has a positive or neutral impact on the EPOs to maintain and enhance biodiversity. The following objectives of the Plan are particularly important in the achievement of this objective:

- All Natura 2000 and pNHA designated sites have been appropriately zoned as a 'Conservation Zone'²³ with an objective which aims to protect the integrity of these sites. Particular attention has been paid to safeguarding the integrity of the Murrough SPA/cSAC. The footprint of the Conservation Zone has been increased to include additional employment, hotel and open space lands that immediately adjoin the designated sites. This provides a buffer to the Natura 2000 site and thereby increases the degree of protection afforded to the site. The Open Space zonings on land adjoining the designated sites on Wicklow Head provide a buffer to the designated sites in this area.
- Non-designated sites, including urban habitats identified in the Wicklow Urban Habitat Study 2008 and public open space areas have been zoned Open Space, where possible.
- Objectives are included to protect other natural heritage features including trees, wildlife corridors, hedgerows, natural boundaries etc.
- New protection has been provided to riparian habitats along the Rathnew, Burkeen and Marilton river systems through the re-zoning of land to Open Space, where possible, along these water systems. In addition, Objectives FL7 and WS4 ensure the protection of riparian habitats through the requirement for development to be set back a distance of 10-15m along all water courses and the retention of vegetation in this area in a natural state.

Notwithstanding the above, it should be noted that a significant number of Plan objectives were found to conflict with the EPOs to maintain and enhance biodiversity. These effects and the mitigation measure introduced through the SEA process are described below:

- The most significant environmental issue facing the Plan relates to the conflict between industrial use of the Murrough North area and the extremely high environmental sensitivity and amenity value of the site. While the Plan retains the industrial zoning of the site, a new objective EMP11 has been added which includes strict environmental controls. In addition, the introduction of the new Conservation Zone and strict objectives set out in NH1, NH2 and NH3 relating to Natura 2000 sites and pNHAs, will ensure that the integrity of the area is not further compromised.
- In order to make the most efficient use of the Port Access Route, land adjoining this road has been rezoned from residential to employment use. Employment uses on the site are to be restricted to light industrial uses only. This, in addition to the Conservation Zone, and objectives NH1, NH2 and NH3, will ensure that the integrity of the Natura 2000 site is safeguarded.
- The zoning of the Convent Lands for mixed use development including residential and community use conflicts with the EPO to protect urban habitats. These lands are identified as a notable urban habitat in the Wicklow Urban Habitat Study 2008. The potentially harmful effects on the habitat are mitigated through the introduction of objective OS10, which ensures that important parts of the urban habitat is retained and included in future design proposals.
- Chapter 5 sets out objectives for the promotion of enterprise and employment. In general, industrial activities can result in emissions which can have adverse effects on air, water and land, which can in turn have a cumulative impact on biodiversity. However, these effects can be successfully mitigated through the environmental objectives set out in the Plan.

²³ Conservation Zone objective (Chp.13) : "To protect Natura 2000 sites/proposed Natural Heritage Areas and a suitable buffer zone outwith their legal boundaries from inappropriate development"

- Objectives for the promotion of tourism and recreation activities and for the promotion of sustainable energy forms can have damaging effects on natural heritage. However, these effects can be successfully mitigated through the environmental objectives set out in the Plan.
- Objectives for the development of new roads can be detrimental to natural heritage, both in a direct and a cumulative manner (whereby increased car usage results in emissions harmful to natural heritage). It is difficult to mitigate the harmful effect of new roads on non-designated sites, however the requirements of the Habitats Directive will safeguard the protection of Natura 2000 sites.

The Plan includes a significant amount of environmental protection objectives that mitigate successfully any potential harmful effects. These objectives include the following: NU1-NU3, NU4-NU9, WS2, WS4, EMP11, TR2, TR3, TTP3 and RN1.

8.3 WATER RESOURCES

Overall, the SEA matrix indicates that the Plan has a positive or neutral impact on the EPOs to achieve a 'good' quality status in all water bodies within the plan area, in line with the target dates set out in the Eastern River Bain Management Plan 2009-2015. The following objectives of the Plan are particularly important in the achievement of the EPO:

- Strong protection is afforded to the Vartry River through the designation of an Open Space area that provides a buffer to the length of the river system that is within the plan area.
- Land adjoining the Rathnew, Burkeen and Marlton river systems has been re-zoned open space, where possible, providing an ecological buffer to these river systems.
- A large part of the coastal and estuarine waters are protected by virtue of their zoning as Natura 2000 sites.
- The Wicklow East Groundwater Body is a protected drinking water supply. Perhaps the greatest threat to this groundwater body is the development of private on-site wastewater treatment and disposal systems. Having regard to the fact that the plan area is served by the public mains system of the Wicklow Sewerage Scheme, objectives have been included in the Plan through the SEA process to ensure that the use of the public mains system is prioritised, with permission for private on-site waste water and disposal systems restricted to exceptional circumstances only. Likewise, the integrity of groundwater can be compromised by private water abstractions. An objective has been introduced to the Plan through the SEA process to ensure that the use of the public mains system is prioritised, with permission for private abstraction systems restricted to exceptional circumstances only.

The following Plan objectives were found to conflict with the EPOs to achieve a 'good' quality status in all water bodies within the plan area, in line with the target dates set out in the Eastern River Bain Management Plan 2009-2015:

- The promotion of employment and enterprise uses could result in pollution leakage of water bodies.
- Objectives for tourism and recreation generally promote greater use of and access to rivers, port, harbour and coastal areas, thereby increasing the potential for pollution of these water bodies.
- Objectives for the development of renewable energy sources, particularly hydro-energy and offshore wind energy, may compromise the quality of river and coastal systems.
- Objectives for the development of new roads in Rathnew cross the river systems of the Rathnew Stream, with potentially harmful effects.

All of the above potentially negative effects are mitigated by the following key environmental objectives: WS1-WS6, W1-W9.

8.4 MATERIAL ASSETS

Overall, the SEA matrix indicates that the Plan has a positive or neutral impact on the EPOs to make the most efficient use of existing water services and transportation infrastructure.

A particularly significant EPO is to make the most efficient use of existing water services infrastructure. In this regard, the Plan is successful in directing development to locations that can be served by the Wicklow Water Supply Scheme. Lands not served by this Scheme have been re-zoned and held in a Strategic Land Bank, for future development after the lifetime of the plan.

All Plan objectives have an either neutral or beneficial impact on the EPO to make the best use of existing road and transportation infrastructure. In this regard, the Plan is successful in directing development to locations served by existing road and transportation infrastructure. Peripheral lands in the 2008 Local Area Plan's Action Areas: AA4, AA7 and AA8 that would necessitate the development of new roads have been re-zoned and held in a Strategic Land Bank. In addition, the Plan removes the objective to provide a Transportation Interchange at AA10 with the consequence that land is re-zoned from high density mixed use to Residential. It is noted that the Plan includes objectives for new roads at Rathnew, the Marlton Action Area and the Convent Lands, and the upgrade of certain roads. It is considered that these new roads will enhance the efficiency of existing roads, through the provision of important links to the key through roads in the area.

Importantly, the Plan promotes the best use of the road infrastructure through a land use scheme whereby people-based employment uses including Research and Knowledge zoned land, mixed use zoned areas and town and village centre zonings are located along the main public transport routes; and product based employment activities are located along key strategic transport routes, the Town Relief Road and Port Access Road, where the vehicular based zonings for employment and warehousing are located (E1, E2 and E3).

8.5 FLOODING

Overall, the SEA matrix indicates that the Plan has a positive or neutral impact on the EPO to reduce and mitigate flood risk.

In accordance with the 'Flood Risk Management Guidelines for Planning Authorities' (DoEHLG, OPW, 2009), a Flood Risk Assessment (FRA) of the Plan has been prepared. This assessment has ensured that inappropriate development has been avoided in areas that are at risk of flooding. The following objectives of the Plan aim to reduce and mitigate flood risk:

- Undeveloped land adjoining the river systems of the Rathnew Stream at Charvey Lane has been re-zoned from employment to open space. The open space zoning extends the length of the system through lands at Tinakilly to the Murrough area.
- Flood risk lands to the rear of Woodside in Rathnew have been re-zoned from Residential use to Open space.
- Undeveloped sections along the Burkeen river system have been rezoned open space, where possible.
- Flood risk lands at Seaview Heights have been re-zoned from Residential use to Open space.
- Undeveloped lands in the Marlton Action Area have retained the open space zoning along the Marlton river system.
- Flood risk areas in the town centre and harbour have passed the justification test for flooding.
- Lands zoned Research and Knowledge and Employment, located at Clermont and Newrath are at significant flood risk. This has been successfully mitigated through the introduction of a flooding objective in Chapter 12, 12.1: Action Areas, which ensures that

the uses permitted on the site, are restricted to those appropriate to the level of flood risk, as set out in the Guidelines.

The above objectives, in combination with objectives FL1-FL7 of the Plan, ensure that flood risk has been reduced and mitigated throughout the plan area.

8.6 CULTURAL HERITAGE

Overall, the SEA matrix indicates that the Plan has a positive or neutral impact on the EPOs to protect and conserve architectural and archaeological heritage. Notwithstanding this, the SEA assessment did identify that the following objectives could be detrimental to the achievement of the EPOs:

- Objectives relating to Wicklow town centre in favour of proposals to assemble sites and buildings for redevelopment in modern retailing formats could be detrimental to the character of the Architectural Conservation Area.
- Objectives relating to Wicklow town centre that promote infill and backland development of properties could be detrimental to the integrity of archaeological sites within the Zone of Archaeological Heritage.
- Objectives for the development of Clermont as a College Campus and objectives for the development of a road in this area may compromise the character and setting of the protected structure, archaeological sites and natural heritage, including protected trees, river systems etc.
- Objectives for the promotion of increased tourism and recreation can result in damaging effects on natural and built heritage.

All potentially damaging effects on cultural heritage can be successfully mitigated by the following environmental objectives of the Plan: AH1-AH3, RPS1-RPS6, ACA1-ACA2, VA1-VA3, and AR1-AR3. The SEA process amended objectives RC2 and TR7 to ensure that modern retail formats are only permitted subject to the protection of built heritage. It should be noted that the Plan introduces additional ACAs at Leitrim Place, Bachelor's Walk/Church Street, Bayview Road and Brickfield Lane, with the consequence of increased protection to built heritage in these areas. In addition, the Plan proposes 9 additions to the RPS.

8.7 LANDSCAPE

Overall, the SEA matrix indicates that the Plan has a positive or neutral impact on the EPOs to protect scenic landscapes. The SEA process identified that the following objectives of the Plan required mitigation in order to ensure achievement of the EPOs:

- The Convent Lands have been zoned for mixed use development including residential and community and education. The promotion of development on this site could be detrimental to the EPO to protect the visual amenity of this highly visible site.
- Objectives for the development of renewable energy, particularly wind energy, and telecommunications and electricity infrastructure could be detrimental to visual amenity.

In order to address the above issues, the SEA process introduced an additional objective – OS10, to safeguard the scenic amenity of the Convent Lands. In addition, objectives E1 and ICT1 has been amended to ensure that proposals for energy and telecommunications infrastructure have due regard to the protection of scenic amenity.

It should be noted that the landscape of the Murrough area is considered to be adequately protected by virtue of the strong environmental protection objectives in this area. Likewise, the scenic quality of Wicklow Head is protected by virtue of the environmental objectives for the Natura 2000 site/pNHA and zonings relating to the Conservation Zone and Open Space areas. In addition, the re-zoning of visible land in Ballyguile at AA7/AA8 and AA4 as 'Strategic Land Bank' (for development beyond the lifespan of the plan) goes further to protect the 'green' setting and backdrop to the settlement, thereby enhancing the visual amenity of the settlement.

It should be noted that the length of prospect no.29 has been reduced slightly to ensure that the development potential of lands at Broomhall are not compromised. The amended prospect is reflective of the most scenic part of the original prospect, ensuring that the visual amenity of this area is safeguarded.

8.8 CLIMATE

Overall, the SEA matrix indicates that the Plan has a positive or neutral impact on the EPOs to minimise greenhouse gas emissions.

Notwithstanding this, the SEA assessment did identify that objectives for the development of new roads and transportation infrastructure is likely to have the combined effect of increasing private vehicular use which consequently increases greenhouse gas emissions. While no environmental objective can mitigate these effects, it should be noted that the Plan has removed objectives for new roads in AA4, AA7 and AA8 and this has an overall beneficial effect on the achievement of the EPOs. In addition, the Plan promotes a compact urban form which facilitates mixed use, 'walkable' neighbourhoods, with increased promotion of public transport, walking and cycling facilities. This land use pattern reduces dependency on private vehicular use and contributes to the reduction in greenhouse gases.

Objectives for the development of employment and enterprise promote industrial activities that could result in noxious emissions. The Plan includes environmental objectives which successfully mitigate potentially damaging effects on the environment. Key objectives in this regard include AE1, AE2 and AE3.

8.9 AIR QUALITY

The environmental assessment of the Plan for the achievement of good air quality yielded the same results as the test of environmental objectives to minimise greenhouse gas emissions. As per the above assessment in relation to 'Climate', the promotion of a sustainable transportation and land use pattern is likely to have the overall positive effect of reducing dependency on private vehicular use, resulting in a reduction of emissions that are harmful to air quality. As described above, harmful emissions from industry can be detrimental to air quality. The Plan includes environmental objectives which successfully mitigates these potentially harmful effects.

8.10 SOILS

Overall, the SEA matrix indicates that the Plan has a neutral or beneficial impact on the EPO to maintain the quality of soils. Key to the achievement of this objective is the promotion of a compact settlement form, which re-zones surplus peripheral lands as Strategic Land Bank and which maximises the use of the existing built environment. This, in combination with policies that protect designated and non-designated natural heritage areas, has an overall effect of positively contributing to the quality of soils in the plan area.

The SEA assessment did identify that the following objectives could be detrimental to the achievement of the EPO:

- Objectives for the development of new and improved road infrastructure can result in the compaction of soil which reduces soil quality.
- Development of greenfield sites for garden centres is likely to result in the development of virgin greenfield sites, which may compromise soil quality.
- Objectives for the intensive development of Clermont for college campus and employment uses on a current greenfield site is likely to result in compaction with is detrimental to soil quality.

The above potentially harmful effects are mitigated by the environmental objectives SL1-SL4, which were introduced through the SEA process.

8.11 ASSESSMENT OF LIKELY ENVIRONMENTAL EFFECT OF THE WICKLOW TOWN-RATHNEW DEVELOPMENT PLAN 2013-2019

Taking account of the above assessment, it is concluded that the overall effect of the Wicklow Town - Rathnew Development Plan 2013-2019 on the environment is likely to be beneficial or neutral. Any likely significant adverse effects on the environment have been prevented, reduced or offset.

SECTION 9: MITIGATION

Mitigation measures include environmental objectives that aim to prevent or reduce, as fully as possible, the significant adverse impacts on the environment of implementing the Wicklow Town - Rathnew Development Plan 2013-2019.

The environmental assessment process was completely iterative between the plan making team and the environmental team (SEA/Appropriate Assessment screening). As a consequence, policies and recommendations were re-worded and changed where necessary to accommodate mitigation of environmental impacts. All mitigation objectives are highlighted in light green in the SEA Assessment Matrix. Plan objectives that have been amended or introduced as a result of the SEA/ Appropriate Assessment Screening process are indicated in italics.

The following sections set out the environmental objectives that are key objectives for the mitigation of the potential significant adverse effects on the environment of the plan area:

9.1 POPULATION AND HUMAN HEALTH

It should be noted that all objectives in the Plan generally aim to mitigate detrimental effects on the health and amenity of the environment for people living and visiting the settlement area. All mitigation objectives listed in the below sections contribute the creation of a sustainable and high quality living environment and address potential adverse effects of implementing the plan:

TC3: All new residential developments in the town and village centres shall comply with the development standards set out in this plan, unless otherwise agreed by the Planning Authority.

NP1: To enforce, where applicable, the provisions of the Environmental Protection Agency (EPA) Acts 1992 and 2003, and EPA Noise Regulations 1994

NP2: To regulate and control activities likely to give rise to excessive noise (other than those activities which are regulated by the EPA).

NP3: To require activities likely to give rise to excessive noise to install noise mitigation measures and monitors. The provision of a noise audit may also be required as appropriate.

LP1: To require proposals for new developments with the potential to create light pollution or light impacts on adjacent residence / public roads *and environmentally sensitive areas* to mitigate impacts.

WM1: To facilitate the development of sites, services and facilities necessary to achieve implementation of the objectives of the Wicklow Waste Management Plan.

WM2: To have regard to the Council's duty under Section 38 (1) of the 1996 Waste Management Act, to provide and operate, or arrange for the provision and operation of, such facilities as may be necessary for the recovery and disposal of household waste arising within its functional area.

WM3: To require all developments likely to give rise to significant quantities of waste, either by virtue of the scale of the development or the nature of the development (e.g. one that involves demolition) to submit a construction and/or operational management plan, which will outline, amongst other things, the plan for the safe and efficient disposal of waste from the site.

WM4: To require all new developments, whether residential, community, agricultural or commercial to make provision for storage and recycling facilities.

WM5: To facilitate the development of existing and new waste recovery facilities and in particular, to facilitate the development of 'green waste' recovery sites

WM6: To have regard to the "Major Accidents Directive" (European Council Directive 96/82/EC). This Directive relates to the control of major accidents involving dangerous substances with an objective to prevent major accidents and limit the consequences of such accidents. This policy will be implemented through Development Management, through specific control on the siting of new establishments and whether such a siting is likely to increase the risk or consequence of a major accident.

LT1: To facilitate the implementation of the County and the local Litter Management Plan

LT2: To proactively pursue enforcement and legal action against perpetrators of illegal dumping and 'fly tipping'.

LT3: To require all new potential litter generating developments (such as shops, takeaways, pubs etc) to provide litter / cigarette bins on or directly adjoining the premises and to provide for the cleaning of the adjoining streetscape in accordance with the provisions of Part II Section 6 of the Litter Pollutions Act 1997 and 2003.

9.2 BIODIVERSITY, FLORA AND FAUNA

NU1: To maintain the favourable conservation status of existing and future Natura 2000 sites (SACs and SPA's) and Annex I-*Habitats* and Annex II-*Animal and Plant* species in the plan area.

NU2: No development will be permitted that adversely affects the integrity of a Natura 2000 site. All development proposals shall comply with the following objectives:

(i) On lands designated a 'Natura 2000 Site' (as shown in the heritage map and included in the conservation zone of the land use map) it is an objective of the Council to preserve and improve the integrity of the Natura 2000 site and to prohibit development that adversely affects the integrity of the Natura 2000 site, in light of the site's conservation objectives. Land designated a 'Natura 2000 Site' comprises Special Areas of Conservation (SACs) and Special Protection Areas (SPAs).

(ii) Any proposed development with potential to result in significant adverse impacts upon a Natura 2000 site shall be subject to an Appropriate Assessment in accordance with Article 6(3) of the EU Habitats Directive 1992 and 'Appropriate Assessment of plans and projects in Ireland-Guidance for Planning Authorities' (DoEHLG, 2009).

(iii) Where the planning authority has determined that an Appropriate Assessment is required in respect of a proposed development, it may require the submission of a Natura Impact Statement (NIS) for proposed developments. The NIS shall assess, on the basis of best scientific knowledge, the effect of a proposed development, on its own, or in combination with other plans or projects, on a Natura 2000 site, in view of the conservation objectives of the site. A NIS shall include all information as prescribed by any relevant legislation, and/or any information that the planning authority considers necessary in order to enable it to assess the effect of a proposed development on the integrity of a site.

(iv) Avoid encroachment on a Natura 2000 site and implement an appropriate buffer zone on adjacent sites, as required, where feasible or as determined following consultation with NPWS or other relevant body.

(V) *Support initiatives to alleviate current recreational pressures at Natura 2000 sites through developing better informed management of existing and new recreational uses*

(vi) Ensure that recreational use is directed away from sensitive areas within the Natura 2000 site.

(vi) No development will be permitted that is likely to cause light, noise, vibration, smell, or air pollution (*e.g. fumes, smoke, soot, ash, dust or grit*), that would adversely effect the integrity of a Natura 2000 site. Proposed developments shall incorporate mitigation and monitoring measures, and construction management plans, as appropriate.

(vii) In order to ensure the protection of the integrity of Natura 2000 sites, the planning authority is not limited to the implementation of the above objectives, and shall implement all other relevant objectives of the plan as it sees fit.

NU3: To maintain the conservation value of all proposed Natural Heritage Areas (NHAs) *and those sites covered by the Flora Protection Order* in the plan area

NU4: To protect non-designated natural sites from inappropriate development, where it is considered that such development would unduly impact on locally important natural habitats or wildlife corridors.

NU5: To facilitate, in co-operation with the relevant statutory authorities and other groups, the identification, public awareness *and protection* of valuable or vulnerable habitats of local or regional importance, not otherwise protected by legislation, *and in this regard, to have regard to the Wicklow Urban Habitat Study 2008 in the protection of habitats.*

NU6: To promote the protection of trees / groups of trees listed in Tables 11.7 and 11.8 below, and to consider the making of further TPOs to protect trees of high value, where it appears that they are in danger of being felled.

NU6: Development that requires the felling of mature trees of conservation and/or amenity value, even though they may not be listed in the Development Plan, will be discouraged.

NU7: To encourage the preservation and enhancement of native and semi-natural woodlands, groups of trees and individual trees, as part of the development control process, and require the planting of native, fruit, nut and appropriate local characteristic species, in all new developments

NU8: To encourage the retention, wherever possible, of hedgerows and other distinctive natural boundaries. Where removal of a hedgerow, stone wall, dry stone wall or other distinctive boundary treatment is unavoidable, provision of the same type of boundary will be required of similar length and set back within the site in advance of the commencement of construction works on the site. Dry stone walls which promote biodiversity will be encouraged.

NU9: The development of identified agricultural lands (within the SLB zone) within the plan boundary shall be in accordance with the rural development objectives and standards set out in the Wicklow County Development Plan

EMP11: Murrough North

For the purposes of this plan, the Murrough is divided into two distinct areas – that area north of the Port Access Road ('Murrough North') and that area between the port access road and the harbour ('Murrough Opportunity Area'). Chapter 12 sets out the objectives and standards for the 'Murrough Opportunity Area'.

In 'Murrough North', it is the objective of the Council to:

- Facilitate the continued operation of established / permitted existing business / commercial activities and the development of new employment facilities in this area.
- To encourage business to develop in a manner which is respectful of the local environment, use environmentally friendly / innovative technologies and improve the visual amenity of the area.
- To ensure that no development is permitted which would give rise to significant adverse impacts upon the conservation objectives of Natura 2000 sites. In accordance with EU Habitats Directive, any development with the potential to give rise to significant adverse impacts upon a Natura 2000 site shall be subject to Appropriate Assessment.
- To encourage site operators to improve the overall visual amenity of the area including the provision of additional landscaping using native species appropriate to this natural coastal setting
- To restrict any new development within 20m of the high water mark and to cooperate with landowners to manage commercial, recreational and employment related uses in the area subject to the protection of the conservation interests of nearby Natura sites

9.3 WATER RESOURCES

W1: To ensure that all waste water generated is collected and discharged after treatment in a safe and sustainable manner, strictly in accordance with the standards and requirements set out in EU and national legislation and guidance documents including the provisions of the Eastern River Basin Management Plan and the Habitats Directive.

W2: All new development on zoned land shall be required to connect to public mains system, i.e. the 'Wicklow Water Supply Scheme' and 'Wicklow Sewerage Scheme', for water supply and effluent disposal.

W3: Permission will be considered for on site effluent treatment and disposal systems for single houses in the Strategic Land Bank zoning in accordance with the with the EPA manual and relevant objectives of the County Development Plan.

W4: To examine the feasibility of connecting of unsewered areas, including individual properties / premises serviced by septic tanks, to existing and planned sewer networks

W5: To ensure the separation of foul and surface water effluent through the provision of separate sewerage networks.

W6: To ensure the implementation of Sustainable Urban Drainage Systems (SUDS) and in particular, to ensure that all surface water generated in a new development is disposed of on-site or is attenuated prior to discharge to an approved surface water system.

W7: To protect existing and potential water resources of the Town and its Environs area, in accordance with the EU Water Framework Directive, the River Basin Management Plans, the Groundwater Protection Scheme and source protection plans for public water supplies.

W8: To ensure that a safe, reliable and effective water services infrastructure is put in place to service the existing and future development needs of the settlement. To require new developments to connect to public water supplies and it has been demonstrated by the developer that any such connection will provide for adequate water for the intended development without impacting of existing supply or pressure elsewhere in the settlement.

W9: To seek to minimise wastage and demand for water, through ongoing monitoring and improvement of the Local Authority controlled water distribution system and requiring new developments to incorporate water efficiency measures.

WS1: To implement the EU Water Framework Directive and associated River Basin and Sub-Basin Management Plans and the EU Groundwater Directive to ensure the protection, improvement and sustainable use of all waters in the plan area, including rivers, lakes, ground water coastal and estuarine waters, and to restrict development likely to lead to deterioration in water quality.

WS2: To resist development that would interfere with the natural water cycle to a degree that would interfere with the survival and stability of natural habitats.

WS3: To prevent development that would pollute water bodies and in particular, to regulate the installation of effluent disposal systems in the vicinity of water bodies that provide drinking water or development that would exacerbate existing underlying water contamination.

WS4: To prevent alterations or interference with river/stream beds, banks and channels, except for reasons of overriding public health and safety (e.g. to reduce risk of flooding); a buffer of at least 10m along watercourses shall be provided free of built development with riparian vegetation generally being retained in as natural a state as possible. In all cases where works are being carried out, to have regard to Regional Fisheries Board "Requirements for the protection of fisheries habitat during the construction and development works at river sites."

WS5: The culverting of all open water channels will only be permitted where no other options are either viable or otherwise appropriate.

WS6: To ensure that any development or activity with the potential to impact on ground water has regard to the GSI Groundwater Protection Scheme

Rathnew 12: To enhance the amenity value of the Rathnew Stream and to facilitate improved access to this area, *subject to objective Water Systems Objective WS4 to this area, subject to the protection of its environmental and ecological value.*

9.4 MATERIAL ASSETS

W2: *All new development on zoned land shall be required to connect to public mains system, i.e. the 'Wicklow Water Supply Scheme' and 'Wicklow Sewerage Scheme', for water supply and effluent disposal.*

W3: *Permission will be considered for on site effluent treatment and disposal systems for single houses in the Strategic Land Bank zoning in accordance with the with the EPA manual and relevant objectives of the County Development Plan.*

W4: To examine the feasibility of connecting of unsewered areas, including individual properties / premises serviced by septic tanks, to existing and planned sewer networks

W5: To ensure the separation of foul and surface water effluent through the provision of separate sewerage networks.

CW1: To enhance the permeability of the town through the facilitation and promotion of opportunities for safe pedestrian and cycling linkages to and within the town centre, employment areas, schools and public transport nodes that will maximise travel by sustainable modes; to improve existing or provide new foot and cycleways on existing public roads, as funding allows.

CW2: To require all new (district or local) distributor roads, that is, roads that carry traffic between industrial, commercial and residential areas to regional road / national primary roads and roads between district distributors to local access roads (i.e. roads abutting properties with amenity, safety and aesthetic aspects having priority over the vehicle movement function) to include footways and to provide for cyclists in accordance with the NTA National Cycle Manual.

CW3: To require new foot and cycleways developed as part of large scale development proposals outside of the town centre to be integrated where possible with existing foot and cycle networks in the town, at the developer's expense.

CW4: To facilitate the development of foot and cyclepaths off road (e.g. through open spaces), where they will provide greater levels of permeability for these modes, while ensuring that personal safety, particularly at night time is of utmost priority. *Such developments will be subject to assessment for environmental sustainability, and protection of the conservation objectives of Natura 2000 sites in accordance with the EU Habitats Directive.*

CW5: To encourage the provision of secure bicycle parking facilities at strategic locations within the settlement, such as within Wicklow town centre, Rathnew village centre, Wicklow train station, at community facilities within the settlement and at transport nodes.

CW6: To promote and encourage the Green Schools Programme within Wicklow and to liaise with all relevant Departments/agencies involved in the operation of the programme.

CW7: To facilitate the better management and formalisation of cycling and walking routes along the coast and looped walk along the east bank of Broadlough, ensuring that these help to alleviate current recreational pressures on the conservation objectives of Natura 2000 sites

PT1: Facilitate the use of public transport for travel within the settlement and to external destinations.

PT2: To encourage and co-operate with the statutory bodies responsible for improving the public transport facilities within the town.

PT3: To reserve lands of c. 1ha to the north of the train station for future expansion of car parking facilities

PT4: To ensure that possibilities for the improvement of the Dublin-Rosslare line are maintained and to ensure that land use adjacent to the station and rail lines are appropriate and will facilitate future improvements

PT5: To encourage the development of the train station and the surrounding lands / roads as the primary 'transport interchange' where a number of transport types can interchange with ease. In particular:

- To improve the bus links within the plan area to the train station and to examine the potential for buses to service the train station directly;
- To encourage the improvement of bicycle facilities at the station;
- To improve existing and provide new footway / cycleway linkages to the existing train station;
- To encourage the development of a designated taxi rank at the station;
- To work to improve signage between Whitegates and the station
- To improve linkages between the station and development land to the north of the railway line

PT6: To encourage the development of two secondary 'transport interchanges' at Wicklow Gaol and in Rathnew Village, in particular:

- To improve bus turning and parking facilities
- To facilitate the development of covered shelters and bike parking stands
- To encourage the development of designated taxi ranks at these locations;
- To improve existing and provide new footway / cycleway linkages to these hubs;
- To work to improve signage at these locations

PT7: To promote the delivery of improved and new bus services in Wicklow Town-Rathnew by:

- Facilitating the needs of existing or new bus providers with regard to bus stops;

- Facilitating the development of bus shelters and improved signage throughout Wicklow Town-Rathnew;
- To facilitate a shuttle bus between the train station to Wicklow Town Centre, Rathnew and Clermont Campus.

9.5 FLOODING

FL1: To implement the provisions of the Guidelines on the Planning System and Flood Risk Management and the Flood Risk Assessment carried out as part of this plan.

FL2: Applications for developments in high or moderate flood risk areas (Flood Zones A and B) shall be assessed in accordance with 'The Planning System and Flood Risk Management Guidelines (Nov 2009 DEHLG & OPW)'. Where the planning authority is considering proposals for new development in areas at high or moderate risk of flooding that include types of development that are vulnerable to flooding and that would generally be inappropriate as set out in Table 3.2 of the Guidelines, the planning authority shall be satisfied that the development satisfies all the criteria of the Justification Test for development management, as set out in Box 5.1 of the Guidelines. Flood Risk Assessments shall be in accordance with the requirements set out in the Guidelines.

FL3: Notwithstanding the identification of an area as being at low or no risk of flooding (Flood Zone C) where the Planning Authority is of the opinion that flood risk may arise or new information has come to light that may alter the flood designation of the land, an appropriate flood risk assessment may be required to be submitted by an applicant for development permission.

FL4: To limit or break up large areas of hard surfacing in new developments and to require all surface car parks to integrate permeability measures such as permeable paving.

FL5: Excessive hard surfacing shall not be permitted for new, or extensions to, residential or commercial developments and all applications will be required to show that sustainable drainage techniques have been employed in the design of the development.

FL6: To require all new developments to include proposals to deal with rain and surface water collected on site and where deemed necessary, to integrate attenuation and SUDS measures.

*FL7: For developments adjacent to all watercourses of a significant conveyance capacity or where it is necessary to maintain the ecological or environmental quality of the watercourse, any structures (including hard landscaping) must be set back from the edge of the watercourse to allow access for channel clearing/ maintenance/ vegetation. A minimum setback of up to 10-15m will be required either side depending on the width of the watercourse *with riparian vegetation generally being retained in as natural a state as possible.**

9.6 CULTURAL HERITAGE

AH1: To consolidate and safeguard the historical and architectural character of Wicklow Town and Rathnew Village through the protection of individual buildings, structures, shopfronts and elements of the public realm that contribute greatly to this character. (Footnote: The National Inventory of Architectural Heritage can be utilised as a source of information with regard to the architectural value of any such features)

AH2: To conserve buildings and features of historical and vernacular interest through ensuring that adequate consideration is given to their protection as part of development proposals and that mitigation measures are put in place as required. (Footnote: The National Inventory of Architectural

Heritage can be utilised as a source of information with regard to the architectural value of any such features)

AH3: To have regard to 'Architectural Heritage Protection: Guidelines for Planning Authorities' (Department of Arts, Heritage and the Gaeltacht, 2011) in the assessment of proposals affecting architectural heritage

RPS1: To protect the character and setting of protected structures.

RPS2: To positively consider proposals to improve, alter, extend or change the use of protected structures so as to render them viable for modern use, subject to consultation with suitably qualified Conservation Architects and/ or other relevant experts, suitable design, materials and construction methods.

RPS3: All development works on or at the sites of protected structures, including any site works necessary, shall be carried out using best heritage practice for the protection and preservation of those aspects or features of the structures / site that render it worthy of preservation.

RPS4: To support the re-introduction of traditional features on protected structures where there is evidence that such feature (e.g. window styles, finishes etc) previously existed.

RPS5: To strongly resist the demolition of protected structures, unless it can be demonstrated that exceptional circumstances exist. In cases where demolition or partial demolition is permitted or where permission is given for the removal of feature(s), the proper recording of the building / feature will be required before any changes are made.

RPS6: The Council shall consider the change of use of Protected Structures, provided that it can be shown that the structure, character, appearance and setting will not be adversely affected.

ACA1: Within Architectural Conservation Areas, all those buildings, spaces, archaeological sites, trees, street furniture, views and other aspects of the environment which form an essential part of their character, shall be protected.

ACA2: The design of any development in Architectural Conservation Areas, including any changes of use of an existing building, should preserve and / or enhance the character and appearance of the Architectural Conservation Area as a whole. Schemes for the conservation and enhancement of the character and appearance of Architectural Conservation Areas will be promoted. In consideration of applications for new buildings, alterations and extensions affecting Architectural Conservation Areas, the following principles will apply:-

- Proposals will only be considered where they positively enhance the character of the ACA;
- The siting of new buildings should, where appropriate retain the existing street building line;
- The mass of the new building should be in scale and harmony with the adjoining buildings, and the area as a whole, and the proportions of its parts should relate to each other, and to the adjoining buildings;
- Architectural details on buildings of high architectural value should be retained wherever possible;
- A high standard of shopfront design relating sympathetically to the character of the building and the surrounding area will be required;
- The materials used should conform to the character of the area. Planning applications in ACAs should be in the form of detailed proposals, incorporating full elevational treatment and colours and materials to be used. Flashing and/or neon lights will not be considered appropriate in an ACA.

VA1: To seek (through the development management process), the retention, conservation, appropriate repair and reuse of vernacular buildings and features such as milestones, stonewalls, traditional & historic shopfronts and pub fronts, thatched roofs and other historic elements. The

demolition of vernacular buildings will be discouraged. (Footnote: The National Inventory of Architectural Heritage can be utilised as a source of information with regard to the architectural value of any such features)

VA2: Development proposals affecting vernacular buildings will be required to submit a detailed, true measured survey, photographic records and written analysis as part of the planning process.

VA3: Where an item or a structure (or any feature of a structure) is considered to be of heritage merit, the Council reserves the right to refuse permission to remove or alter that structure / item, in the interests of the protection of the County's architectural heritage.

AR1: No development in the vicinity of a feature included in the Record of Monuments & Places (RMP) will be permitted where it seriously detracts from the setting of the feature or which is seriously injurious to its cultural or educational value.

AR2: Any development that may due to its size, location or nature have implications for archaeological heritage (*including the zone of Archaeological potential as identified in this plan*) shall be subject to an archaeological assessment. When dealing with proposals for development that would impact upon archaeological sites and/or features, there will be a presumption in favour of the 'preservation in situ' of archaeological remains and settings, in accordance with Government policy. Where permission for such proposals is granted, the Council will require the developer to have the site works supervised by a competent licensed archaeologist.

AR3: To ensure that provision is made through the development control process for the protection of previously unknown archaeological sites and features where they are discovered during development works.

TR8: Positive consideration shall be given to the re-configuration of existing retail provision to accommodate large modern retail units, *subject to compliance with all other planning criteria, in particular those relating to architectural heritage. Where the merging of two or more buildings is proposed, regard should be had to the established streetscape and the need to preserve traditional shopfronts.*

9.7 LANDSCAPE

VP1: To protect listed views and prospects from development that would either obstruct the view / prospect from the identified vantage point or form an obtrusive or incongruous feature in that view / prospect. Due regard will be paid in assessing development applications to the span and scope of the view / prospect and the location of the development within that view / prospect.

E1: To encourage the development of alternative and renewal energy sources, including wind, solar, hydro, bio energy sources, *and other energy infrastructure subject to all normal planning considerations, including the protection of environmental and ecological quality and visual amenity.*

ICT1: To facilitate the development and expansion of communication, information and broadcasting networks, including mobile phone networks, broadband and other digital services, *subject to environmental and visual amenity constraints.*

OS10: *To encourage and facilitate the development of the upper slopes of the 'Convent Lands' (zoned CE) for uses relating to ecological management / interpretation, innovative agriculture / horticulture and recreation. Any development proposal should have regard to the highly visible nature of the site and its identification as a valuable habitat in the Wicklow Urban Habitat Study, 2008. In this regard, particularly important habitat areas of the site should be retained and incorporated into any design proposals.*

9.8 CLIMATE AND AIR QUALITY

AE1: To regulate and control activities likely to give rise to emissions to air (other than those activities which are regulated by the EPA).

AE2: To require proposals for new developments with the potential for the accidental release of chemicals or dust generation, to submit and have approved by the Local Authority construction and/or operation management plans to control such emissions.

AE3: To require activities likely to give rise to air emissions to implement measures to control such emissions, to install air quality monitors and to provide an annual air quality audit.

9.9 SOILS

SL1: The Council will protect geomorphical and geological heritage as identified in the Wicklow County Development Plan from inappropriate development, in consultation with the Geological Survey of Ireland.

SL2: The Council will consult with the Geological Survey of Ireland as it deems necessary, when dealing with any proposals for major developments, which will entail 'significant' ground excavation, such as road developments, tunnels, major drainage works, and foundations for industrial or large buildings and complexes.

SL3: Geological and soil mapping where available shall be utilised to inform planning decisions relating to development, excavation, flooding, agriculture, degraded/contaminated soils (which may have implications for water quality, health, fauna), lands with unstable soils/geology or at risk of landslides, and those which are essential for habitat protection, or have geological significance.

SL4: Any proposals for mineral extraction shall be assessed with regard to the objectives as set out in the Wicklow County Development Plan.

SECTION 10: MONITORING

The SEA Directive requires that the significant environmental effects of the implementation of Development Plans are monitored. Monitoring enables, at an early stage, the identification of unforeseen adverse effects and the undertaking of appropriate remedial action. In addition, monitoring can also play an important role in assessing whether the Development Plan is achieving its environmental objectives and targets – measures which the Development Plan can help work towards – whether these need to be re-examined and whether the proposed mitigation measures are being implemented. Monitoring is based on the EPO indicators and targets. These indicators enable quantitative measurement of trends over time.

The methodology used in the development of the monitoring programme for the Wicklow Town - Rathnew Development Plan 2013-2019 is based on the use of indicators and targets, and the assignment of responsibilities. It also includes intervention in the event of an unforeseen occurrence.

Wicklow County Council and Wicklow Town Council are responsible for the implementation of the monitoring programme in relation to the Plan. The minimum requirement for overall SEA reporting is every two years, in parallel with the review period of the Plan. Much of the indicator information required is already being actively collected and reported at a level sufficient to meet the needs of this Plan.

The tables set out in Section 6 set out the monitoring programme for the Plan. The indicators used for the monitoring programme are at a level which is relevant to the Plan, and where information is collated and reported on by a variety of Government agencies including EPA,

OPW, National Parks and Wildlife Services, NTA and different sections within Wicklow County Council and Wicklow Town Council, including the Heritage Offices, water services, roads and environment sections.

In addition, it should be noted that all new development requiring Environmental Impact Statement and Natura Impact Statement will need to address a range of environmental objectives, indicators and targets, and associated environmental mitigation measures and incorporate them into the detailed project specific mitigation measures.

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SEA ASSESSMENT MATRIX DRAFT WICKLOW-RATHNEW DEVELOPMENT PLAN 2013-2019	PHH1: Plan for projected population up to 2019/2022	PHH2: Promote a high quality living environment	PHH3: Create a healthy environment	PHH4: Access to amenity and recreational space	BIO1: Conserve the diversity of protected habitats and species on designated sites	BIO2: Conserve the diversity of habitats and species in non-designated sites	BIO3: Protect river habitats	WAT1: Improve water quality of surface waters to status objectives as set out in the Water Framework Directive	WAT2: Protect Vartry River of salmonid importance	WAT3: prevent pollution of groundwater	MAT1: Make best use of existing water services infrastructure	MAT2: Make the best use of existing road and transportation infrastructure	FL1: Avoid and mitigate river and coastal flood risk	CUL1: Protect and enhance architectural heritage, including structures on RPS and structures in Architectural Conservation Area	CUL2: Protect and enhance archaeological heritage including features identified on Record of Places and Monuments and Zone of Archaeological Potential	LAN1: Protection of listed views and prospects	LAN2: Protect visual amenity of scenic and highly visible landscapes, including the Murrough, Wicklow Head, Ballyguile, Hawkstown and upper slopes of Convent lands	CLIM1: Minimise greenhouse gas emissions to meet National and International standards	CLIM2: Achieve environmentally friendly building designs	AIR1: protect good air quality status and minimise the output of Nitrogen Oxides (Nox) and Particulate matter (PM10)	SOIL1: Maximise the sustainable re-use of brownfield sites and maximise the use of the existing built environment			
SH5: To encourage proposals from developers to satisfy Part V obligations which are directed toward special need categories – namely, elderly accommodation, traveller accommodation, specialized accommodation for the homeless and specially adapted accommodation for persons with disabilities – where the proposal is related to an identified local need and is consistent with other policies of this Development Plan.																								
CHAPTER 4: Key Areas - Wicklow Town Centre Strategy, Rathnew Village Strategy, Wicklow Port and Harbour Strategy																								
Vehicular, Pedestrian and Cycling Objectives																								
WT1: To maintain the Main Street as the principle vehicular route through the town centre, and to exploit any opportunities that arise to improve safety for both vehicles and pedestrians/cyclists.			C									C												
WT2: To promote the ease of movement of pedestrians throughout the town centre and avail of any opportunities to improve footpaths, pedestrian routes and road crossings.		C	C															C		C				
WT3: To promote the ease of movement of cyclists throughout the town centre and avail of any opportunities to improve the quality of service for cyclists including the provision of safe and secure cycle parking at key locations throughout Wicklow town centre.		C	C															C		C				
WT4: To facilitate the improvement of existing and the development of new linkages from the town centre to car/bike parks, amenity areas, to south quay and to the port / Murrough areas and to the town's environs. Any new development proposals with frontage onto both Main Street and the south quay shall incorporate new pedestrian linkages between the two where feasible.		C	C																	C				
Car Parking Objectives																								
CP1: To maintain existing and provide new car parking options as funding allows, in proximity to the town centre.																								
CP2: To avail of opportunities to remove public car parking on the Main Street and at amenity areas, subject to due consideration of the commercial needs of Main Street, including loading parking.			C																					
CP3: To require new development on the Main Street to incorporate pedestrian links where feasible to existing or new public car parks.		C	C																					
CP4: Deviations from the minimum car parking requirement set out in Chapter 9 of this plan shall be considered in the town centre strategy area where a public car park is within 200m walking distance to the site. In such cases and where the site allows; only the needs of long-term users (e.g. employees and residents of the development) shall be addressed by the developer.																								
CP5: To facilitate the development of a multi-storey car park in Wicklow town centre at a suitable location, subject to the protection of the built heritage.												C		C	C			C		C			Promotes car based transport / increase in greenhouse gases.	
Enhancing access to public transport																		C			C			
PT1: To facilitate the improvement of public transport user facilities including, inter alia, shelters, covered bicycle parking, information points with maps, routes, timetables, real-time information and designated taxi ranks at / near the bus stop at the rear of Wicklow Goal and the Grand Hotel		C	C															C		C				
PT2: To avail of opportunities to provide new or enhance existing foot and cycleways to and from these public transport pick up locations, as funding allows		C	C															C		C				
PT3: To facilitate improved access to bus stops particularly crossing points for passengers.		C	C															C		C				
Public Realm Objectives																								
PR1: To protect and enhance the streetscape of Wicklow's Main Street through the appropriate control of alterations to existing buildings and the development of new structures; in particular building lines and heights which diverge from the established form will require to be justified.		C		C										C										
PR2: To strive to improve the appearance of junctions and gateway areas into the main street of the Town centre, particularly the Marlton Road – Abbey Street junction.		C		C								C												
PR3: To appropriately control the design and appearance on building frontages, particularly shopfronts: 'dead' frontages, i.e. those with no goods on display to the street or those where views of the interior are completely blocked by non-transparent materials etc will not be considered.		C		C										C										
PR4: New or extended / refurbished units shall, at all times that the unit is not in active use, provide an attractive temporary display or professionally designed artwork affixed to the glass frontage. The temporary use of the space during such times for creative, cultural or community purposes will be encouraged; however, such change of use may require planning permission, and advice will be provided by the Council on a case by case basis in this regard.		C		C										C										
PR5: To support opportunities to create better linkages between the main street and the south quay and Church Street, in particular access routes and views between the two.		C		C								C												
PR6: To maintain and enhance Fitzwilliam Square and Market Square and support other possibilities for the development of new urban spaces, with hard and soft landscaping and high quality street furniture.		C		C										C										
PR7: To improve footpaths, lighting, seating and other street 'furniture' as funding allows, and require private developments providing such features to meet the highest standards of design and siting.		C		C										C										
Dereliction and Vacant Sites Objectives																								
VS1: To faciitate substantial redevelopment of under-utilised or vacant properties on the Main Street.		C		C										C	████████████████████			C		C	C	Intensification of development may compromise archaeological sites within Zone of Archaeological Potential.	Cultural Heritage: AR1-AR3	

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VS2: To facilitate appropriate infill development of vacant backland. Buildings, Items and Places of Heritage Value		C		C											Red Hatched			C		C	C	Intensification of development may compromise archaeological sites within Zone of Archaeological Potential.	Cultural Heritage: AR1-AR3
HV1: To positively consider proposals to improve, alter, extend or change the use of protected structures within the town centre so as to render them viable for modern use, <i>subject to retention of their features of special interest by the application of suitable design, materials and construction methods.</i>				C																			
HV2: <i>Proposals to demolish Protected Structures, or special features which contribute to the character of an ACA, only be allowed in exceptional circumstances.</i>				C																			
Mix of Uses in the Core Area Objectives																							
MU1: To support and facilitate activities and developments that will improve the vitality and vibrancy of the Main Street area		C												C									
MU2: Redevelopment proposals in the town centre shall generally be required to provide commercial use at ground floor / street level.																							
MU3: All non-residential floors will be required to be designed to be suitable to a range of users.																							
MU4: To control and restrict where necessary uses at ground / street level to prevent an excessive concentration of single outlet types / formats e.g. bookmakers, off-licences (including off-licences in convenience stores), charity shops, fast-food takeaways, amusement centres and financial institutions.																							
MU5: Active 1st floor uses will be required in all new developments and particular encouragement will be given to 'living over the shop'. Where such use is proposed, a relaxation in density, car parking requirements and open space standards will be considered, where the development meets very high quality of design and accommodation																		C		C	C		
Retail Role of the Core Objectives																							
RC1: To support the function of the main street and associated side streets as the principle retail area in Wicklow.																							
RC2: To facilitate and support proposals to merge or assemble multipile buildings / sites in order to develop modern retailing formats, including department stores or malls, <i>having due regard to the protection of architectural heritage within the Town Centre.</i>														Red Hatched	Red Hatched							Destruction of existing urban fabric may compromise the character of the ACA/protected structures. Intensification of development may compromise archaeological sites within Zone of Archaeological Potential.	Cultural Heritage: RC2, AH1-AH3, RPS1 RPS6, ACA1-ACA2, VA1-VA3, AR1-AR3
RC3: To promote and facilitate the conversion of non-retail premises to retail/retail service use and to strongly resist the conversion of existing retail/retail service premises to alternative, less active, uses that would diminish vibrancy and daytime activity in the area.																							
Rathnew Village Centre																							
The Old Village																							
Rathnew 1: To enhance and protect the built <i>and natural</i> heritage and to facilitate improved access to these amenities.																							
Rathnew 2: To improve the public realm by facilitating road and footpath improvement works																							
<i>Rathnew 3: To facilitate improved signage and interpretation of local heritage assets.</i>																							
Clermont Campus to Tinakelly																							
Rathnew 4: To encourage and facilitate improvements to the existing retail / services area along the main street, including the provision of new / expanded retail and retail services developments, including the provision of a new supermarket, and improved shops fronts																							
Rathnew 5:To enhance the amenity value of the Rathnew Stream and to facilitate improved access, <i>subject to objective Water Systems Objective WS4 to this area, subject to the protection of its environmental and ecological value.</i>					C	C															C		
Rathnew 6: To improve pedestrian movement by facilitating the provision of pedestrian crossings to the western area from Clermont Campus to Charvey Lane																		C		C			
<i>Rathnew 7: To improve existing and provide new footways and cycleways as funding allows</i>																		C		C			
Rathnew 8: To encourage the development of a transport hub around the existing bus stops at the Woodside estate and St Ernan's School, including improved accessibility, car-parking, bus stop facilities, shelters and covered bicycle parking																		C		C			
Rathnew 9: To facilitate the delivery of the Rathnew Inner Relief Road					Red Hatched	Red	Red							Red Hatched				Red		Red	Red Hatched	Relief road likely to improve amenity of Rathnew. However, new road compromises biodiversity/ soil quality/increases greenhouse gases/promotes increased car use, and could be detrimental to character/setting of Clermont protected structure. Crossing of river may be detrimental to water quality.	Biodiversity: NH1, NH2/ Cultural Heritage: RPS1-RPS6/ Soil: SL1-SL4
North of the Glenealy Road																							
Rathnew 10: To facilitate improved pedestrian movement and safety with the provision of additional pedestrian crossings across the Glenealy Road to the 'Old Village' and across to the Clermont Campus.																		C		C			

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Rathnew 11: To require the vacant lands between the R752 and Charvey Lane to be developed as a single comprehensive development, with a masterplan, that provides for new frontage on the R752 and Charvey Lane, and which addresses all traffic movement issues arising from any development.																						New road cross Rathnew Stream and may interfere with ecological quality. Promotion of car use likely to increase harmful emissions/greenhouse gases. New road construction causes significant compaction of soil.	Biodiversity: NH1-NH3, Soil: SL1-SL4/ Water Systems: WS1-WS6
Rathnew 12: To enhance the amenity value of the Rathnew Stream and to facilitate improved access, subject to objective Water Systems Objective WS4 to this area, subject to the protection of its environmental and ecological value.																							
Wicklow Port and Harbour																							
Port1: To support and facilitate existing and future commercial port activities on the north quay and to resist developments that would undermine the commercially potential of the area.																						Increased industrial and recreational use of Port and Harbour area could be detrimental to water quality/biodiversity/integrity pNHA.	Biodiversity: NH1-NH9/Water Resources: WS1-WS6
Port 2: To support and facilitate maritime activity on the south quay and to encourage new developments that provide for an improved mix of uses including commercial, retail and residential uses and to particularly encourage tourism and leisure related developments.																						Increased industrial and recreational use of Port and Harbour area could be detrimental to water quality/biodiversity/integrity pNHA.	Biodiversity: NH1-NH9/Water Resources: WS1-WS6
Port 3: To ensure that all proposals for development have cognisance of Natura 2000 sites in the area and that no development is allowed which would have a significant adverse effect on the conservation interests of these sites.																							
Port 4: To require any new developments in the port area to meet a high standard of design that respects the unique historical, environmental, visual and recreational amenities of the area.																							
Port 5: To support and facilitate the development of new infrastructure necessary for the continued operation and development of the port.																						Increased industrial and recreational use of Port and Harbour area could be detrimental to water quality/biodiversity/integrity pNHA.	Biodiversity: NH1-NH9/Water Resources: WS1-WS6
Port6: To consider the feasibility of the preparation of a Port and Environs Masterplan, to facilitate the continued development of the Port,quays and harbour, to be prepared by Wicklow Port Company in close conjunction with the Planning Authority. Any approved Masterplan must adhere to the overall zonings,policies and objectives of the Development Plan.																							
Harbour 1: To facilitate the enhancement of the public realm around the harbour area and to facilitate the provision of appropriate information signage in the harbour area.																							
Harbour 2: To facilitate the improvement of pedestrian/cyclist/transport movement and access to the Harbour area, by facilitating the provision of appropriate directional and information signage that increases access to and the leggibility of the routes between attractions and facilites on the port, harbour and quays.																						Increased industrial and recreational use of Port and Harbour area could be detrimental to water quality/biodiversity/integrity pNHA.	Biodiversity: NH1-NH9/Water Resources: WS1-WS6
Harbour 3: To facilitate appropriate tourism and leisure development in the harbour area including the provision of new clubhouses, pontoons / marinas, shops, cafes and other leisure and tourism related developments subject to a higher quality of design, having regard to the protection of Natura 2000 sites, as well as the existing environmental, visual and residential amenities in the area.																						Increased industrial and recreational use of Port and Harbour area could be detrimental to water quality/biodiversity/integrity pNHA.	Biodiversity: NH1-NH9/Water Resources: WS1-WS6
Harbour 4: To protect the unique historical character and recreational value of the harbour.																							
Chapter 5: Enterprise and Employment																							
Objectives for enterprise and employment development																							
General objectives																							
EMP1: To support all forms of employment creation, especially where this can mitigate long distance commuting, subject to the proper planning and sustainable development of the area and compliance with all other objectives of this plan.																						Industrial activities can result in emissions with significant adverse environmental impacts on air, water and land.	Biodiversity: NH1-9, WS2, WS4/ Water Resources:W1-W9,WS1-WS6/ Climate and Air: AE1-AE3
EMP2: To promote and support the development of employment zoned land and to protect employment zoned land from inappropriate development that would undermine future economic activity or the sustainable development of such areas																						Industrial activities can result in emissions with significant adverse environmental impacts on air, water and land.	Biodiversity: NH1-9, WS2, WS4/ Water Resources:W1-W9,WS1-WS6/ Climate and Air: AE1-AE3
EMP3: To encourage the redevelopment of already developed or brownfield employment / mixed use lands for enterprise and employment creation throughout the settlement, subject to the proper planning and sustainable development of the area and compliance with all other objectives of this plan.																						Industrial activities can result in emissions with significant adverse environmental impacts on air, water and land.	Biodiversity: NH1-9, WS2, WS4/ Water Resources:W1-W9,WS1-WS6/ Climate and Air: AE1-AE3
EMP4: To promote the development of employment generating uses at locations which comply with sustainable transportation objectives, i.e.																							
Promoting the development of 'product' intensive industries (typically manufacturing and logistics based uses) at locations that are accessible to strategic roads infrastructure;																						Industrial activities can result in emissions with significant adverse environmental impacts on air, water and land.	Biodiversity: NH1-9, WS2, WS4/ Water Resources:W1-W9,WS1-WS6/ Climate and Air: AE1-AE3
Promoting the development of 'people' intensive industries (typically office, services and start-up entrepreneur based uses) at locations that are accessible by public transport networks;																						Industrial activities can result in emissions with significant adverse environmental impacts on air, water and land.	Biodiversity: NH1-9, WS2, WS4/ Water Resources:W1-W9,WS1-WS6/ Climate and Air: AE1-AE3
Promoting the intensification of existing employment land uses that are in proximity to good public transport facilities;																							

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LF2: Where a proposal for foodstore development involves the sale of a significant amount of non-food goods (as is common in hypermarkets) the application drawings accompanying a planning application shall delineate clearly the area to be devoted primarily for the sale of convenience goods. The balance between the convenience and comparison element of the proposed store drawings is a critical element in the assessment of the suitability of the development proposal. Where a significant element of the store is indicated to be for comparison goods the potential impact of that element of the store on existing comparison goods stores within the catchment must be included in the assessment of the application. To prevent any adverse impact on town centres, the proportion of comparison goods floorspace may be limited to a maximum of 20% of retail floor area.																																					
Neighbourhood centres																																					
C1: New / expanded neighbourhood centres shall generally be required to be located on lands zoned / identified for such usage. All efforts should be made to integrate neighbourhood centres with any existing / new community facilities due to be provided in the area e.g. schools, childcare facilities, sports fields etc.																																					
Tourism retail																																					
RT1: Tourism retail shall be encouraged at appropriate and established tourist locations, subject to the following criteria:□ the applicant must show that the tourism attraction concerned is well established and has a suitable existing flow of visitors sufficient to make a retail facility viable;□ the retail facility shall be sufficiently proximate to the tourism facility but shall be suitably located so as to not detract from the feature; In order to ensure that the retail unit in itself does not supersede the existing tourist attraction as the main tourism feature of an area, any application for tourism retail in excess of 200sqm shall be required to justify the need for a larger retail unit and to include proposals (to be fully implemented by the retail developer) to effectively link the retail facility to the tourist attraction (both in terms of physical links and linkage of the tourism identity / product; the retail facility shall include significant links with the local tourism community in terms of providing a tourist office or tourism information and space for the sale of locally produced goods / crafts.																																					
Retail warehousing																																					
RW1: New retail warehouse developments and retail parks shall be required to be located on suitably zoned lands.. Where no such zoned lands are provided and a need can be shown for this form of retailing, the applicant must show through the application of the sequential approach that the site selected is suitable and optimal																																					
RW2: A recent trend in a number of parks has been a blurring of the division between bulky and non-bulky goods retailers, with some parks now containing major clothing chains and food retailers. Continuing to allow this mixing of uses such as fashion chains into retail parks is likely to result in a negative impact on adjoining town centres as the large size units readily available in retail parks are easily accessible by car, but not public transport, and divert trade away from the town core. Therefore where permission is granted for new retail warehouse development, the planning authority shall apply strict conditions on floor size (including restricting internal expansion by the construction of 1st floors or mezzanines), the type of goods to be sold or restricting the subdivision into smaller units.																																					Retail warehousing tends to require car borne transportation, thus contributing to greenhouse gas emissions/deterioration of air quality.
RW3: Single retail warehouse units may be considered on infill sites in built up areas and flexibility with regard to the type of goods sold may be considered where the location is easily accessible by foot from the core retail area, the form of development is in keeping with good urban design and the development would not detract from local plan aspirations for the area.																																					
Factory shops																																					
FS1: Factory shops (i.e. as a shop adjacent to the production unit and specialising in the sale of manufacturers' products direct to the public) shall be positively considered where the following criteria are met:□ the shop is strictly ancillary to the main production activity on the site;□ additional car parking (over and above that required by the manufacturing facility alone) is available or can be provided for shoppers.																																					
Garden centres / nurseries																																					
GC1: Garden centres (i.e. the use of land, including buildings, for the cultivation, storage and/or the display and sale of horticultural products and the display and sale of related goods and equipment) shall generally be required to locate on suitably zoned lands. Garden centres shall only be considered on unzoned / agricultural lands within the plan boundary where it can be shown that the principle activity is the cultivation of plants and the retail activity is purely ancillary to the main use. In such cases, retail space shall not be expected to exceed 500sqm (indoor and outdoor retail sales area) and car parking shall be restricted to that strictly required to serve the permitted retail area																																					Garden centres tends to require car borne transportation, thus contributing to greenhouse gas emissions/deterioration of air quality. Development on greenfield sites/agricultural lands compromises soil quality and natural heritage.
Petrol filling stations																																					Biodiversity: NH1-NH3/ Soil: SL1-SL4

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TY1: In accordance with Objective CD3, where a deficiency in facilities for teenagers / young adults is identified in an area, the developer of any significant new residential estate shall submit proposals to address the deficiency.																							
TY2: All new neighbourhood parks or active open space zones shall include a MUGA of a size and nature to be following consultation with the Local Authority.																							
TY3: New community buildings / facilities shall be designed to facilitate the operation of youth clubs and youth services (see Objective CM2 to follow). Community Centres																							
CM1: In accordance with Objective CD3, where a deficiency in indoor community space is identified in an area, the developer of any significant new residential estate shall submit proposals to address the deficiency.																							
CM2: New community buildings / facilities shall be fit-for-purpose and multi-purpose, designed to facilitate a wide range of uses including active uses (e.g. basketball, badminton, gymnastics / dance, martial arts etc) and meeting / club use, they shall be inclusive, accessible and cater for all ages.																							
Sport Facilities																							
SR1: To contribute to the improvement of the health and well being of the inhabitants of the plan area and to facilitate participation in sport and recreation.					C	C	C																
SR2: To be guided by the Sports & Recreation Policy in the provision and expansion of sport and recreation opportunities in the plan area. In addition the policy will inform the development levy scheme for community facilities, in particular the provision of sport and recreation facilities.					C	C	C																
SR3: Facilities for sports shall normally be located close to the population, on designated Active Open Space land. All efforts should be made to locate new sports facilities close to existing community facilities, schools or areas of dense residential development. The Council may consider providing sites for these purposes or may be prepared to make financial or other assistance available, subject to reasonable access being made available to the public and to reasonable safeguards for the continued use of the land as open space.					C	C	C																
SR4: The redevelopment for alternative uses of open space and recreational lands whether owned by private recreational clubs or publicly owned, will normally be resisted by the Council unless suitable alternative recreational facilities can be provided in a convenient location.					C	C	C																
SR5: The development of new sports or active open space zones shall be accompanied by appropriate infrastructure including car parking and changing rooms.																							
Cultural Facilities																							
CA1: To maximise the opportunities for the Arts and support the implementation of the Wicklow County Arts Plan and its policies.																							
CA2: To encourage and support the creation and display of works of art in public areas, including appropriate locations within the streetscape, provided no unacceptable environmental, amenity; traffic or other problems are created.																							
CA3: To support the implementation of the Wicklow Library Development Plan																							
CA4: To facilitate the development of new, improved or expanded places of worship and burial grounds at appropriate locations in the plan area, where the demand for the facility has been demonstrated.																							
Open Space Objectives																							
OS1: To encourage the provision of open space for both passive <i>and active</i> recreation to serve the needs of the plan area's existing and future population concurrent with new residential development.													C					C		C	C		
OS2: To develop and facilitate the provision of public open space generally in accordance with "Sustainable Residential development in Urban Areas-Guidelines for Planning Authorities" (DOEHLG 2009).													C					C	C	C	C		
OS3: Prohibit non-community uses on areas of lands permitted or designated as public open space in existing residential developments.													C					C		C	C		
OS4: To facilitate and encourage a series of high quality open spaces throughout the town, preferably as part of a larger linked <i>green</i> network that is available to all ages and accessible to everyone, including people with mobility impairments.													C					C		C	C		
OS5: To retain open space lands with established recreational uses.													C					C		C	C		
OS6: To preserve, manage and maintain to a high standard the existing parks and open spaces in the settlement and to preserve the open green spaces within developments that have been identified as open space as part of a planning permission.													C					C		C	C		

SEA ASSESSMENT MATRIX DRAFT WICKLOW-RATHNEW DEVELOPMENT PLAN 2013-2019	PHH1: Plan for projected population up to 2019/2022	PHH2: Promote a high quality living environment	PHH3: Create a healthy environment	PHH4: Access to amenity and recreational space	BIO1: Conserve the diversity of protected habitats and species on designated sites	BIO2: Conserve the diversity of habitats and species in non-designated sites	BIO3: Protect river habitats	WAT1: Improve water quality of surface waters to status objectives as set out in the Water Framework Directive	WAT2: Protect Vartry River of salmonid importance	WAT3: prevent pollution of groundwater	MAT1: Make best use of existing water services infrastructure	MAT2: Make the best use of existing road and transportation infrastructure	FL1: Avoid and mitigate river and coastal flood risk	CUL1: Protect and enhance architectural heritage, including structures on RPS and structures in Architectural Conservation Area	CUL2: Protect and enhance archaeological heritage including features identified on Record of Places and Monuments and Zone of Archaeological Potential	LAN1: Protection of listed views and prospects	LAN2: Protect visual amenity of scenic and highly visible landscapes, including the Murrough, Wicklow Head, Ballyguile, Hawkstown and upper slopes of Convent lands	CLIM1: Minimise greenhouse gas emissions to meet National and International standards	CLIM2: Achieve environmentally friendly building designs	AIR1: protect good air quality status and minimise the output of Nitrogen Oxides (Nox) and Particulate matter (PM10)	SOIL1: Maximise the sustainable re-use of brownfield sites and maximise the use of the existing built environment			
OS7: To facilitate the development of allotments of an appropriate scale on lands which meet the following criteria:- □ Lands situated within or adjacent to the edge of plan area; □ Lands that are easily accessible to the residents of the plan area; □ Where an adequate water supply can be provided; □ Where adequate parking facilities can be provided.																								
OS8: To facilitate the provision of a skate-park within the town. In this regard, the development of a skate-park will be 'open for consideration' in a number of zones of this plan and in particular, it shall be a desired use in the Murrough Opportunity Area.																								
OS9: To develop and facilitate the provision of public open space subject to compliance with the provisions for the protection of Natura 2000 sites as set out in the EU Habitats Directive																								
OS10: To encourage and facilitate the development of the upper slopes of the 'Convent Lands' (zoned CE) for uses relating to ecological management / interpretation, innovative agriculture / horticulture and recreation. Any development proposal should have regard to the highly visible nature of the site and its identification as a valuable habitat in the Wicklow Urban Habitat Study, 2008. In this regard, particularly important habitat areas of the site should be retained and incorporated into any design proposals.																								
Harbour Leisure Uses																								
PL1: To encourage any recreational use of the harbour, waterside or landside where appropriate which does not compromise the commercial operation of the port, the environmental quality of the surrounding area, or the conservation objectives of Natura 2000 sites.																							Increased recreational use could compromise quality of biodiversity/ quality of water bodies.	PL1/Biodiversity: Port3, Harbour 3, NH1-NH9,WS2,WS4,WS5,RN1/ Water Resources: WS1-WS6, W1-W9
PL2: To support the provision of a pontoon to facilitate recreational or pleasure craft where this is also compatible with the commercial operation of the Port.																							Increased recreational use could compromise quality of biodiversity/ quality of water bodies.	PL1/Biodiversity: Port3, Harbour 3, NH1-NH9,WS2,WS4,WS5,RN1/ Water Resources: WS1-WS6, W1-W9
Chapter 9: Traffic, Transport and Accessibility																								
Walking and Cycling Objectives																								
CW1: To enhance the permeability of the town through the facilitation and promotion of opportunities for safe pedestrian and cycling linkages to and within the town centre, employment areas, schools and public transport nodes that will maximise travel by sustainable modes; to improve existing or provide new foot and cycleways on existing public roads, as funding allows.																								
CW2: To require all new (district or local) distributor roads, that is, roads that carry traffic between industrial, commercial and residential areas to regional road / national primary roads and roads between district distributors to local access roads (i.e. roads abutting properties with amenity, safety and aesthetic aspects having priority over the vehicle movement function) to include footways and to provide for cyclists in accordance with the NTA National Cycle Manual.																								
CW3: To require new foot and cycleways developed as part of large scale development proposals outside of the town centre to be integrated where possible with existing foot and cycle networks in the town, at the developer's expense.																								
CW4: To facilitate the development of foot and cyclepaths off road (e.g. through open spaces), where they will provide greater levels of permeability for these modes, while ensuring that personal safety, particularly at night time is of utmost priority. Such developments will be subject to assessment for environmental sustainability, and protection of the conservation objectives of Natura 2000 sites in accordance with the EU Habitats Directive.																							Redevelopment of open space contrary to protection of biodiversity.	Biodiversity: NH1-NH9, CW4
CW5: To encourage the provision of secure bicycle parking facilities at strategic locations within the settlement, such as within Wicklow town centre, Rathnew village centre, Wicklow train station, at community facilities within the settlement and at transport nodes.																								
CW6: To promote and encourage the Green Schools Programme within Wicklow and to liaise with all relevant Departments/agencies involved in the operation of the programme.																								
CW7: To facilitate the better management and formalisation of cycling and walking routes along the coast and looped walk along the east bank of Broadlough, ensuring that these help to alleviate current recreational pressures on the conservation objectives of Natura 2000 sites																							Increased recreational use could compromise biodiversity.	Biodiversity: NH1-NH9, CW7
Public Transport Objectives																								
PT1: Facilitate the use of public transport for travel within the settlement and to external destinations.																								
PT2: To encourage and co-operate with the statutory bodies responsible for improving the public transport facilities within the town.																								
PT3: To reserve lands of c. 1ha to the north of the train station for future expansion of car parking facilities																							Development may compromise the protection of biodiversity/adjoining Natura 2000 site	NH1-NH9
PT4: To ensure that possibilities for the improvement of the Dublin-Rosslare line are maintained and to ensure that land use adjacent to the station and rail lines are appropriate and will facilitate future improvements																								

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RPS2: To positively consider proposals to improve, alter, extend or change the use of protected structures so as to render them viable for modern use, subject to consultation with suitably qualified Conservation Architects and/ or other relevant experts suitable design, materials and construction methods.														C									
RPS3: All development works on or at the sites of protected structures, including any site works necessary, shall be carried out using best heritage practice for the protection and preservation of those aspects or features of the structures / site that render it worthy of preservation.														C									
RPS4: To support the re-introduction of traditional features on protected structures where there is evidence that such features (e.g. window styles, finishes etc) previously existed.														C									
RPS5: To strongly resist the demolition of protected structures, unless it can be demonstrated that exceptional circumstances exist. In cases where demolition or partial demolition is permitted or where permission is given for the removal of feature(s), the proper recording of the building / feature will be required before any changes are made.														C									
RPS6: The Council shall consider the change of use of Protected Structures, provided that it can be shown that the structure, character, appearance and setting will not be adversely affected.														C									
Architectural Conservation Areas																							
ACA1: Within Architectural Conservation Areas, all those buildings, spaces, archaeological sites, trees, street furniture, views and other aspects of the environment which form an essential part of their character, shall be protected.														C									
ACA2: The design of any development in Architectural Conservation Areas, including any changes of use of an existing building, should preserve and / or enhance the character and appearance of the Architectural Conservation Area as a whole. Schemes for the conservation and enhancement of the character and appearance of Architectural Conservation Areas will be promoted. In consideration of applications for new buildings, alterations and extensions affecting Architectural Conservation Areas, the following principles will apply:- • Proposals will only be considered where they positively enhance the character of the ACA; • The siting of new buildings should, where appropriate retain the existing street building line; • The mass of the new building should be in scale and harmony with the adjoining buildings, and the area as a whole, and the proportions of its parts should relate to each other, and to the adjoining buildings; • Architectural details on buildings of high architectural value should be retained wherever possible; • A high standard of shopfront design relating sympathetically to the character of the building and the area; • The materials used should conform to the character of the area. Planning applications in ACAs should be handled in accordance with the above principles.														C									
Other structures & vernacular architecture															C								
VA1: To seek (through the development management process), the retention, conservation, appropriate repair and reuse of vernacular buildings and features such as milestones, stone walls, traditional & historic shopfronts and pub fronts, thatched roofs and other historic elements. The demolition of vernacular buildings will be discouraged. <i>footnote re NIAH added</i>														C									
VA2: Development proposals affecting vernacular buildings will be required to submit a detailed, true measured survey, photographic records and written analysis as part of the planning process.														C									
VA3: Where an item or a structure (or any feature of a structure) is considered to be of heritage merit, the Council reserves the right to refuse permission to remove or alter that structure / item, in the interests of the protection of the County's architectural heritage.														C									
Archaeological Heritage Objectives																							
AR1: No development in the vicinity of a feature included in the Record of Monuments & Places (RMP) will be permitted where it seriously detracts from the setting of the feature or which is seriously injurious to its cultural or educational value.			C			C										C	C						
AR2: Any development that may due to its size, location or nature have implications for archaeological heritage (<i>including the zone of Archaeological potential as identified in this plan</i>) shall be subject to an archaeological assessment. When dealing with proposals for development that would impact upon archaeological sites and/or features, there will be a presumption in favour of the 'preservation in situ' of archaeological remains and settings, in accordance with Government policy. Where permission for such proposals is granted, the Council will require the developer to have the site works supervised by a competent licensed archaeologist.			C			C										C	C						

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WS2: To resist development that would interfere with the natural water cycle to a degree that would interfere with the survival and stability of natural habitats.			C		C	C															C			
WS3: To prevent development that would pollute water bodies and in particular, to regulate the installation of effluent disposal systems in the vicinity of water bodies that provide drinking water or development that would exacerbate existing underlying water contamination.					C	C															C			
WS4: To prevent alterations or interference with river/stream beds, banks and channels, except for reasons of overriding public health and safety (e.g. to reduce risk of flooding); a buffer of at least 10m along watercourses shall be provided free of built development with riparian vegetation generally being retained in as natural a state as possible. In all cases where works are being carried out, to have regard to Regional Fisheries Board "Requirements for the protection of fisheries habitat during the construction and development works at river sites."			C		C	C															C			
WS5: The culverting of all open water channels will only be permitted where no other options are either viable or otherwise appropriate.			C		C	C															C			
WS6: To ensure that any development or activity with the potential to impact on ground water will take account of the GSI Groundwater Protection Scheme			C		C	C															C			
Soils and Geology																								
SL1:The Council will protect geomorphical and geological heritage as identified in the Wicklow County Development Plan from inappropriate development, in consultation with the Geological Survey of Ireland.					C	C	C	C	C	C			C											
SL2: The Council will consult with the Geological Survey of Ireland as it deems necessary, when dealing with any proposals for major developments, which will entail 'significant' ground excavation, such as road developments, tunnels, major drainage works, and foundations for industrial or large buildings and complexes.					C	C	C	C	C	C			C											
SL3: Geological and soil mapping where available shall be utilised to inform planning decisions relating to development, excavation, flooding, agriculture, degraded/contaminated soils (which may have implications for water quality, health, fauna), lands with unstable soils/geology or at risk of landslides, and those which are essential for habitat protection, or have geological significance.					C	C	C	C	C	C			C											
SL4: Any proposals for mineral extraction shall be assessed with regard to the objectives as set out in the Wicklow County Development Plan.					C	C	C	C	C	C			C											
Recreational use of Natural Resources Objectives																								
RN1:To facilitate the use of natural areas for active outdoor pursuits, subject to the highest standards of habitat protection and management and all other normal planning controls.																					C		Increased recreational use of natural resources can be detrimental to integrity of heritage/water quality.	Biodiversity: NH1-NH9,WS2,WS4,WS5,RN1,RN2/ Water Resources: WS1-WS6, W7
RN2: The Council shall seek to promote access to amenity areas of the plan area for the benefit of all, on the basis of co-operation with landowners, recreational users and other relevant stakeholders groups to promote "agreed access" on public and privately owned land in the plan area on the basis of sustainability, consultation and consensus																					C		Increased recreational use of natural resources can be detrimental to integrity of heritage/water quality.	Biodiversity: NH1-NH9,WS2,WS4,WS5,RN1,RN2/ Water Resources: WS1-WS6, W7
RN3: To facilitate the establishment of 'greenways' that connect areas of open space and natural areas within the plan areas to one another and to the coast							C	C	C	C			C					C			C			
RN4: To require applications for new housing, employment or other significant development to identify existing or planned green spaces / natural areas on or in the vicinity of the site and to provide for green corridors between same.							C	C	C	C			C					C	C		C			
RN5: To protect the quality of bathing waters and to endeavour to ensure that bathing waters achieve "sufficient or better status by 2015" and increase the number of bathing waters classified as "good" or "excellent", in accordance with the Bathing Water Directive (Directive 2006/7/EC)							C						C								C			
Views and Prospects																								
VP1:To protect listed views and prospects from development that would either obstruct the view / prospect from the identified vantage point or form an obtrusive or incongruous feature in that view / prospect. Due regard will be paid in assessing development applications to the span and scope of the view / prospect and the location of the development within that view / prospect.				C										C							C			
Maritime Heritage and Seascape																								
MH1: It is a policy of the Council to maintain the coastal character of the settlement and to provide for its enjoyment as a recreational and natural asset.													C			C	C							
MH2: To support initiatives to highlight Wicklow's Maritime heritage in the public realm																								
MH3:To ensure that any development projects in and around the harbour and quays respect any valuable structures or items of Wicklow's maritime heritage.																								
Coastal zone management objectives																								
CZ1: No development will be permitted that has the potential to adversely affect the conservation objectives of The Murrough Wetlands SAC, The Murrough SPA, Wicklow Head SAC, or Wicklow Reef SPA either directly, indirectly or cumulatively. Applications for planning permission will be required to demonstrate beyond all reasonable doubt that a proposed development does not adversely impact on the integrity of the Natura 2000 site.				C				C	C	C			C			C	C	C				C		
CZ2: To facilitate the enhancement of existing, and development of new recreational facilities along the coastal area, such as walking routes, car parking areas, signage, changing / toilet facilities and water based clubs, subject to compliance with the provisions of the EU Habitats Directive and other planning considerations.																							Increased recreational use of natural resources can be detrimental to integrity of heritage/water quality.	Biodiversity: NH1-NH9, CZ2/ Water Resources: W7, WS1-WS6
CZ3: To support investigations into alternatives for the development of Wicklow port.																							Increased recreational use of natural resources can be detrimental to integrity of water quality.	Water Resources: W7, WS1-WS3
CZ4: To retain Wicklow Golf Club at its present location and to preserve the open character of this area, as it acts as an important buffer area between the town and recreation areas further to the south								C		C			C	C	C			C			C			

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§ A neighbourhood centre shall be developed at the northern end of the action area, in proximity to the TRR, at a location that is easily accessible by foot and vehicle from the surrounding area. This neighbourhood centre shall not exceed 1,000sqm GFA, with not more than 500sqm GFA being devoted to retail / retail services uses. No single retail unit shall exceed 200sqm GFA. The remainder of the neighbourhood centre shall be designed so as to be useable by a variety of community uses such as crèches / preschools, community spaces / community meeting rooms, health centre etc. The delivery of this centre may be on a phased basis, but no more than 40% of the residential development will be permitted in advance of the full completion of the community elements of the centre. A minimum area of 9ha shall be development as public open space in accordance with the following criteria: - Lands designated Passive Open Space (POS) shall be developed as a formal landscaped park, including an amenity walkway along both sides of the river, generally as indicated on the map. The plan shall include suitable proposals to ensure that walkway areas are maintained as safe, usable areas, free from anti-social behaviour - Lands designated Active Open Space (AOS) shall be laid out and developed as a public sports ground, to be devoted to the use of the general public and not reserved for a single club or activity, in a format and with such facilities / infrastructure to be determined following consultation with the Community Development Section of the Council - The delivery of the Open Space may be on a phased basis, but no more than 70% of the residential development will be permitted in advance of the full completion of the Active Open Space and the riverine park.																								
§ No development may be occupied until such a time as the link between the existing Marlton estate road and the TRR is completed.																								
The Murrough Opportunity Area																								
Land Uses																								
MB1: To facilitate the development of a broad mix of uses in the Murrough Area, with an emphasis on medium to higher density residential, small scale enterprise, hi-tech industries, retail, recreation, cultural, civic facilities and marine related activities and tourism.																								
MB2: To facilitate the development of a hotel and other tourism accommodation at the Murrough.																								
MB3: To facilitate the provision of a Tourist Information Centre for Wicklow Town at the Murrough.																								
MB4: To ensure there are active ground floor uses in all buildings fronting public spaces, walkways and streets.																								
MB5: Seek the provision of a central civic space surrounded by retail, small enterprise and cultural or civic uses, with clear and legible connections to the surrounding development, the river edge and coastal edge.																								
MB6: To facilitate the promotion of marine or port related industry at appropriate locations that do not impact on the environmental protection objectives of the plan and that are also compatible with and do not detract from other retail, commercial, tourism and residential uses.																								
MB7: To facilitate the development of a landscaped linear public park along the coastal edge of the Murrough connecting to the Murrough Wetlands / Broadlough, complete with playground, designated walkways, toilet and washroom facilities, boardwalk areas, seating, fishing stands, signage and lighting																								
MB8: All developments in this area shall be subject to an Appropriate Assessment as per Article 6 of EU Habitats Directive to ensure that they do not give rise to adverse impacts, either directly, indirectly or cumulatively on the conservation objectives of Natura 2000 sites.																								
Design																								
MD1: To ensure that all new structures present an appropriate façade to the sea, river, walkways and roadside with a continuous streetscape and building frontage where appropriate.																								
MD2: To ensure the creation of a high quality urban realm through the provision of appropriately designed streets and open spaces, and the buildings contained within them.																								
MD3: To ensure that the design of all buildings and open spaces are of a high architectural quality and reinforce the distinctive maritime setting of the Murrough.																								
MD4: To ensure future development is to a density and height that is sensitive and appropriate to its immediate built and natural context.																								
Movement																								
MD1: To facilitate the provision of cycle lanes connecting to existing lanes and cycle parking where possible.																								
MD2: To facilitate the development of traffic-calming measures on the central access road where necessary and to facilitate the provision of pedestrian connections between both sides of the roadway though the Murrough.																								
MD3: To facilitate the development of pedestrian and cycling links between the Murrough area with the town centre, train station, port, harbour and quays.																								
Environmental																								
ME1: Establish and maintain the conservation buffer zone along the edge of the River Leitrim and the coast to protect the environmental designations of the river and coast.																								