

ENVIRONMENTAL REPORT

OF THE WESTPORT TOWN AND ENVIRONS DEVELOPMENT PLAN 2010-2016

STRATEGIC ENVIRONMENTAL ASSESSMENT



For: Westport Town Council

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List of Abbreviations

CSO	Central Statistics Office
DEHLG	Department of the Environment, Heritage and Local Government
EIA	Environmental Impact Assessment
EPA	Environmental Protection Agency
EU	European Union
GSI	Geological Survey of Ireland
NHA	Natural Heritage Area
NIAH	National Inventory of Architectural Heritage
NSS	National Spatial Strategy
RBD	River Basin District
RMP	Record of Monuments and Places
RPS	Record of Protected Structures
SAC	Special Area of Conservation
SEA	Strategic Environmental Assessment
SEO	Strategic Environmental Objective
SI No.	Statutory Instrument Number
SPA	Special Protection Area
WFD	Water Framework Directive

Glossary

Biodiversity and Flora and Fauna

Biodiversity is the variability among living organisms from all sources including inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are a part; this includes diversity within species, between species and of ecosystems' (United Nations Convention on Biological Diversity 1992).

Flora is all of the plants found in a given area.

Fauna is all of the animals found in a given area.

Biotic Index Values (Q Values)

The Biotic Index Values, or Q values, are assigned to rivers in accordance with biological monitoring of surface waters - low Q ratings, as low as Q1, are indicative of low biodiversity and polluted waters, and high Q ratings, as high as Q5, are indicative of high biodiversity and unpolluted waters. Good status as defined by the Water Framework Directive equates to approximately Q4 in the national scheme of biological classification of rivers as set out by the Environmental Protection Agency.

Environmental Problems

Annex I of 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 (the Strategic Environmental Assessment Directive) requires that information is provided on 'any existing environmental problems which are relevant to the plan or programme', thus, helping to ensure that the proposed strategic action does not make existing environmental problems worse.

Environmental problems arise where there is a conflict between current environmental conditions and ideal targets. If environmental problems are identified at the offset they can help focus attention on important issues and geographical areas where environmental effects of the plan or programme may be likely.

Environmental Vectors

Environmental vectors are environmental components, such as air, water or soil, through which contaminants or pollutants, which have the potential to cause harm, can be transported so that they come into contact with human beings.

Mitigate

To make or become less severe or harsh

Mitigation Measures

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

Protected Structure

Protected Structure is the term used in the Planning Act of 2000 to define a structure included by a planning authority in its Record of Protected Structures. Such a structure shall not be altered or demolished in whole or part without obtaining planning permission or confirmation from the planning authority that the part of the structure to be altered is not protected.

Recorded Monument

A monument included in the list and marked on the map which comprises the Record of Monuments and Places that is set out county by county under Section 12 of the National Monuments (Amendment) Act, 1994 by the Archaeological Survey of Ireland. The definition includes Zones of Archaeological Potential in towns and all other monuments of archaeological interest which have so far been identified. Any works at or in relation to a recorded monument requires two months notice to the Department of the Environment, Heritage and Local Government under Section 12 of the National Monuments (Amendment) Act, 1994.

Scoping

Scoping is the process of determining what issues are to be addressed, and setting out a methodology in which to address them in a structured manner appropriate to the plan or programme. Scoping is carried out in consultation with the appropriate bodies.

Strategic Actions

Strategic actions include: *Policies*, which may be considered as inspiration and guidance for action and which set the framework for plans and programmes; *Plans*, sets of co-ordinated and timed objectives for the implementation of the policy; and, *Programmes*, sets of projects in a particular area.

Strategic Environmental Assessment (SEA)

Strategic Environmental Assessment (SEA) is the formal, systematic evaluation of the likely significant environmental effects of implementing a plan or programme before a decision is made to adopt it.

Strategic Environmental Objective (SEO)

Strategic Environmental Objectives (SEOs) are methodological measures which are developed from international, national, regional and county policies which generally govern environmental protection objectives and against which the environmental effects of the Development Plan can be tested. The SEOs are used as standards against which the objectives of the Development Plan can be evaluated in order to help identify areas in which significant adverse impacts are likely to occur, if not mitigated.

Section 1 SEA Introduction and Background

1.1 Introduction and Terms of Reference

This is the Environmental Report of the Westport Town and Environs Development Plan 2010-2016 Strategic Environmental Assessment (SEA). The purpose of the report is to provide a clear understanding of the likely environmental consequences of decisions regarding the future accommodation of development in Westport Town and its Environs.

The SEA has been carried out in order to comply with the provisions of the Planning and Development (Strategic Environmental Assessment) Regulations 2004 (SI No. 436 of 2004) and in order to improve planning and environmental management of future development in Westport Town and its Environs. This report should be read in conjunction with the Development Plan.

1.2 SEA Definition

Environmental assessment is a procedure that ensures that the environmental implications of decisions are taken into account before the decisions are made. *Environmental Impact Assessment*, or EIA, is generally used for describing the process of environmental assessment which is limited to individual projects such as waste incinerators, housing developments or roads while *Strategic Environmental Assessment*, or SEA, is the term which has been given to the environmental assessment of plans, and other strategic actions, which help determine what kind of individual projects take place. 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.

The kind of development occurs in Westport Town and its Environs and where it occurs will be significantly determined by the implementation of a Development Plan. By anticipating the effects and avoiding areas in

which growth cannot be sustainably accommodated and by directing development towards more compatible and robust receiving environments adverse effects of development are more likely to be mitigated, planning applications are more likely to be granted permission and the scope of EIAs which may be required as part of certain planning applications are likely to be reduced.

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.

1.4 Implications for the Elected Members

The above legislation requires certain plans and programmes which are prepared by Westport Town Council and Mayo County Council - including the Westport Town and Environs Development Plan - to undergo SEA. The findings of the SEA are expressed in an Environmental Report which is submitted to the Elected Members alongside the Plan. The Elected Members must take account of the Environmental Report before the adoption of the Plan. When the Plan is adopted a statement must be made public, summarising, inter alia: how environmental considerations have been integrated into the Plan; and, the reasons for choosing the Plan as adopted over other alternatives detailed in the Environmental Report.

Section 2 SEA Methodology

2.1 Introduction

This section details how the SEA for the Westport Town and Environs Development Plan has been undertaken alongside the preparation of the Plan. The SEA process started in January

2008 and this report has been produced in February 2010.

Figure 2.1 lays out the main stages in the Plan preparation/SEA process.

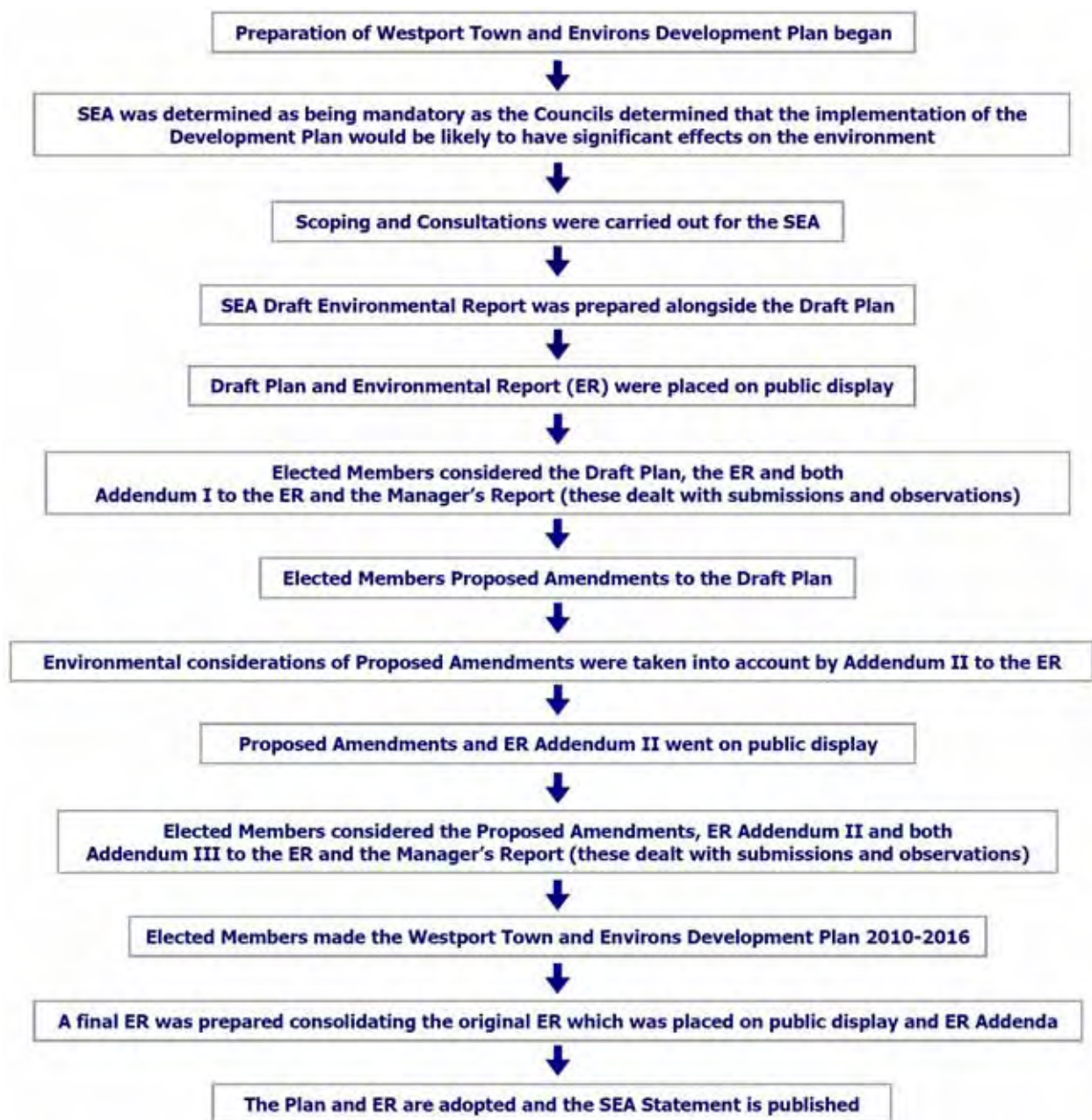


Figure 2.1 Development Plan and SEA Stages

2.2 Scoping

In consultation with the relevant authorities, the scope of environmental issues to be dealt with by the SEA together with the level of detail to which they are to be addressed was broadly decided on after preliminary data collection. Scoping of the SEA was continuous with certain issues being selected for further examination after certain data was obtained. Scoping helped the SEA to become focused upon the important issues, such as those relating to existing and potential environmental issues and environmental problems¹, thereby avoiding resources being wasted on unnecessary data collection.

Scoping facilitated the selection of issues relevant to the environmental components which are specified under the SEA Directive - biodiversity, fauna, flora, population, human health, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, and landscape.

With regard to human health, impacts relevant to the SEA are those which arise as a result of interactions with environmental vectors (i.e. environmental components such as air, water or soil through which contaminants or pollutants, which have the potential to cause harm, can be transported so that they come into contact with human beings). Impacts upon human beings arising as a result of social and economic conditions are not considered by SEA.

The Environmental Protection Agency (EPA), the Department of the Environment, Heritage and Local Government (DEHLG) and the Department of Communications, Marine and Natural Resources (DCMNR) were all sent SEA scoping

¹ Annex I of the SEA Directive requires that information is provided on 'any existing environmental problems which are relevant to the plan or programme', thus, helping to ensure that the proposed strategic action does not make existing environmental problems worse.

Environmental problems arise where there is a conflict between current environmental conditions and ideal targets. If environmental problems are identified at the offset they can help focus attention on important issues and geographical areas where environmental effects of the plan or programme may be likely.

notices 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 the Mayo County Council. Submissions were received on the scope of the SEA from the EPA and the DEHLG.

2.3 Environmental Baseline Data and Other Strategic Actions

The SEA process is informed by the environmental baseline (i.e. the current state of the environment - flora and fauna, soil, water, cultural heritage etc.) to facilitate: the identification and evaluation of the likely significant environmental effects of implementing the Plan and the alternatives; and, the subsequent monitoring of the effects of the Plan as adopted. Data was collected to describe the environmental baseline and its likely evolution without implementation of the Plan.

In order to describe the baseline (the current state of the environment) in Westport and its Environs, data was collated from currently available, relevant environmental sources.

The SEA Directive requires that information on the baseline environment be focused upon the relevant aspects of the environmental characteristics of areas likely to be significantly affected and the likely evolution of the current environment in the absence of the strategic action i.e. the Plan. Any information that does not focus upon this is surplus to requirements; therefore the SEA focuses on the significant issues, disregarding the less significant ones. In addition, the SEA Directive aims to avoid duplication of the assessment whereby a strategic action forms part of a hierarchy. Furthermore, if certain matters are more appropriately assessed at different levels of the hierarchy in which the Plan is positioned, or, if certain matters have already been assessed by a different level of the hierarchy then additional assessment is not needed.

The SEA Directive requires that information is provided on 'any existing environmental problems which are relevant to the Plan or programme'. Information is therefore provided on existing environmental problems which are relevant to the Plan, thus helping to ensure that

the Plan does not exacerbate any existing environmental problems in Westport and its Environs.

Environmental considerations were communicated to the plan making team at Mayo County Council on an ongoing basis from the outset in order to allow for their integration into the Plan thus minimising the potential for significant negative environmental effects arising from implementation of the Plan.

2.4 Alternatives

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

Taking into account the objectives and the geographical scope of the Plan, alternatives were formulated through consultation with the plan-making team.

2.5 The SEA Environmental Report

In this Environmental Report the likely environmental effects of implementing the Plan and the alternatives are predicted and their significance evaluated with regard to the environmental baseline.

The Environmental Report provided the decision-makers, the Elected Members of the Councils, who decided what type of Plan to adopt, as well as the public, with a clear understanding of the likely environmental consequences of decisions regarding the future accommodation of growth in Westport Town and its Environs. Mitigation measures to prevent or reduce significant adverse effects posed by the Plan, or to maximise any benefits arising, are proposed. The alternatives are also presented in this report, as are measures concerning monitoring.

This Report has been updated in order to take into account of amendments which were made to the Draft Plan which was originally placed on public display and relevant submissions and observations.

2.6 The SEA Statement

After the Plan was adopted a document was made public, referred to as the SEA Statement. This includes information on: how environmental considerations have been integrated into the Plan - highlighting the main changes to the Plan which resulted from the SEA process; how the Environmental Report and consultations have been taken into account - summarising the key issues raised in consultations and in the Environmental Report and indicating what action, if any, was taken in response; and, the reasons for choosing the Plan in the light of the other alternatives, identifying the other alternatives considered, commenting on their potential effects and explaining why the Plan was selected.

2.7 Legislative Conformance

This report complies with the provisions of the SEA Regulations and is written in accordance with Schedule 2B of the Planning and Development (Strategic Environmental Assessment) Regulations 2004 (SI No. 436 of 2004). Table 2.1 (overleaf) is a reproduction of the checklist of information to be contained in the Environmental Report (DEHLG, 2004)² and includes the relevant sections of this report which deal with these requirements.

² DEHLG (2004) *Implementation of SEA Directive (2001/42/EC): Guidelines for Regional Authorities and Planning Authorities* Dublin: Government of Ireland.

Information Required to be included in the Environmental Report	Corresponding Section of this Report
(A) Outline of the contents and main objectives of the Plan, and of its relationship with other relevant plans and programmes	Sections 4 and 5
(B) Description of relevant aspects of the current state of the environment and the evolution of that environment without implementation of the Plan	Section 3 and Appendix I
(C) Description of the environmental characteristics of areas likely to be significantly affected	Sections 3, 4, 7 and 8
(D) Identification of any existing environmental problems which are relevant to the Plan, particularly those relating to European protected sites	Section 3
(E) List environmental protection objectives, established at international, EU or national level, which are relevant to the Plan and describe how those objectives and any environmental considerations have been taken into account when preparing the Plan	Sections 4, 6, 7 and 9
(F) Describe the likely significant effects on the environment	Section 7 and 8
(G) Describe any measures envisaged to prevent, reduce and as fully as possible offset any significant adverse environmental effects of implementing the Plan	Section 9
(H) Give an outline of the reasons for selecting the alternatives considered, and a description of how the assessment was undertaken (including any difficulties)	Sections 2, 6 and 7
(I) A description of proposed monitoring measures	Section 10
(J) A non-technical summary of the above information	Appendix II
(K) Interrelationships between each Environmental topic	Addressed as it arises within each Section

Table 2.1 Checklist of Information included in this Environmental Report

2.8 Difficulties Encountered

2.8.1 Centralised Data Source

The lack of a centralised data source that could make all environmental baseline data for the Plan area both readily available and in a consistent format posed a significant difficulty to the SEA process. This difficulty is one which is encountered at local authorities across the country and was overcome by investing time in the collection of data from various sources and through the use of Geographical Information Systems.

Section 3 Westport Town and Environs - Baseline Environment Description

3.1 Introduction

The environmental baseline of Westport Town and Environs is described in this section. This baseline together with the Strategic Environmental Objectives, which are outlined in Section 4, was used in order to identify, describe and evaluate the likely significant environmental effects of implementing the Development Plan and in order to determine appropriate monitoring measures.

The environmental baseline is described in line with the legislative requirements, encompassing the following components – biodiversity, flora and fauna, population, human health, soil, water, air and climatic factors, material assets, cultural heritage, landscape and the interrelationship between these components. A description is also included of the likely effects upon each environmental component under a *do-nothing scenario* i.e. the likely evolution of the environment without the implementation of the Development Plan.

The Town of Westport stands on the Carrowbeg River, in the western part of County Mayo on the easterly shore of Westport Bay, to the east of Clew Bay. The town was designed in 1780 by James Wyatt and grew as a prosperous centre for linen and cotton trade until the 1800s. Westport, as one of the few planned towns in the country, has a distinct and valuable urban design and visual quality and is generally regarded as one of the most important heritage towns in Ireland.

The town is set within a landscape characterised by a series of steep, flat-topped drumlins between which the Town core is located. The core is characterised by a series of planned linear streets and urban set-pieces such as the Mall, Bridge Street, Shop Street, the Octagon and the town clock.

Westport is the third largest town in Mayo with an urban population of 5,163 and a population of 312 in its Environs³.

³ Central Statistics Office (2006) *Census 2006 Volume 1 - Population Classified by Area* Cork: CSO.

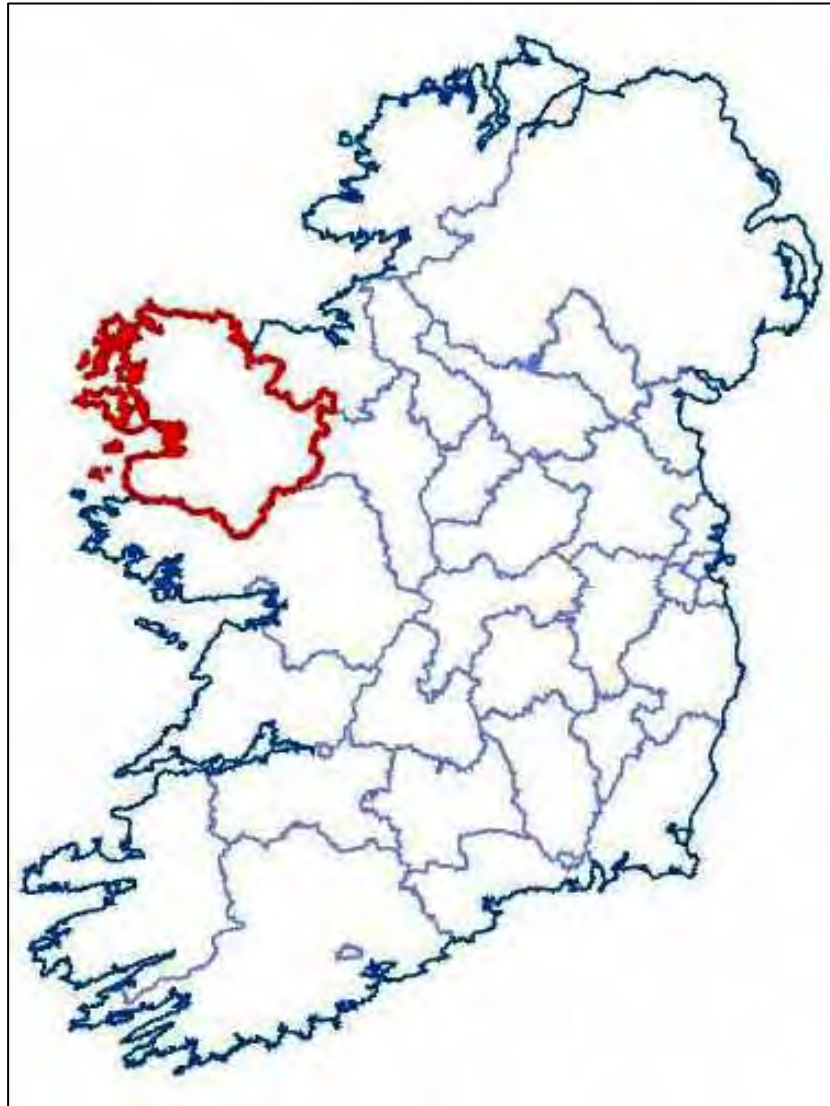


Figure 3.1 Context of County Mayo in relation to the island of Ireland



Figure 3.2 Context of Westport Town and Environs in relation to County Mayo

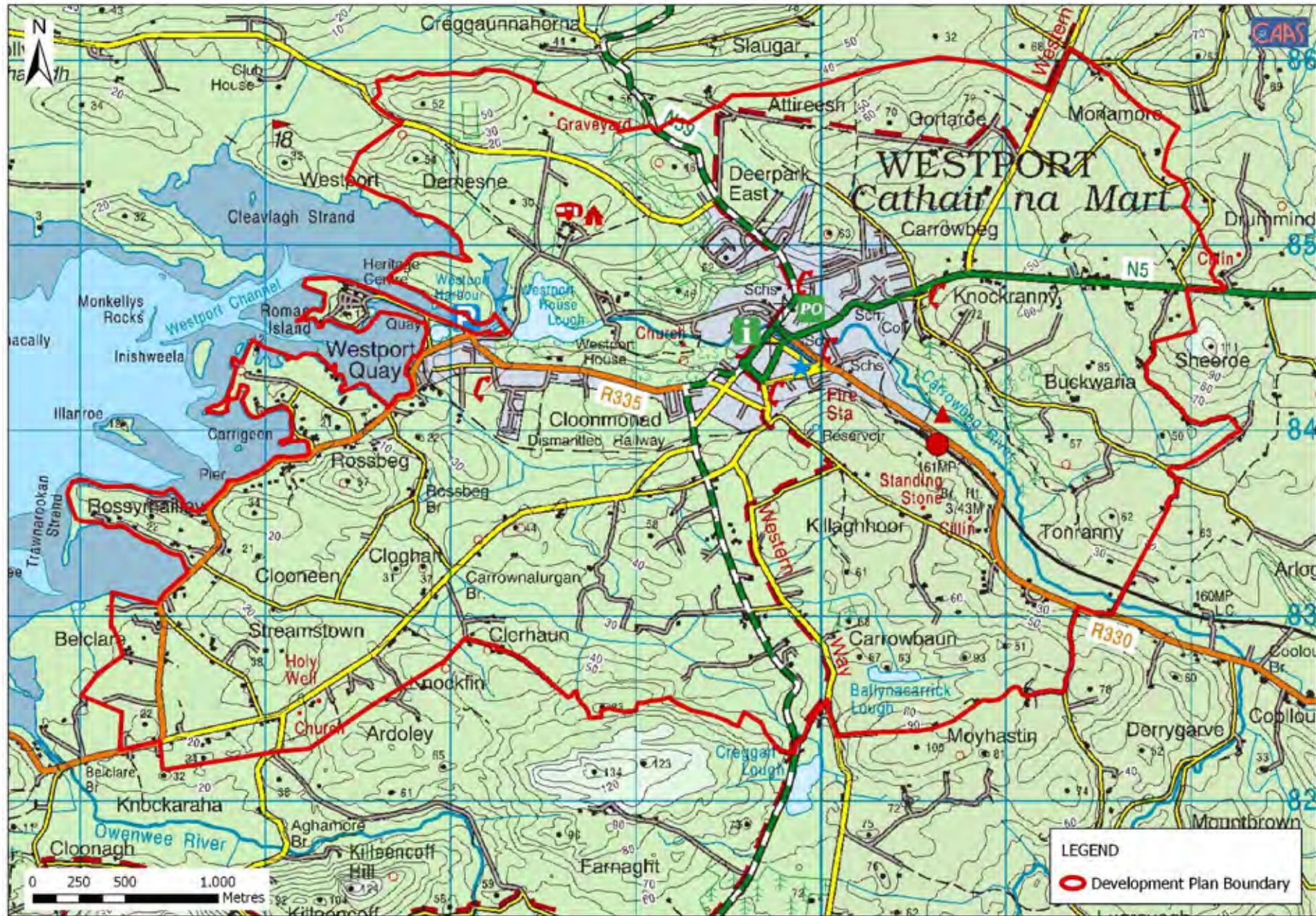


Figure 3.3 Westport Town and Environs Development Plan Boundary

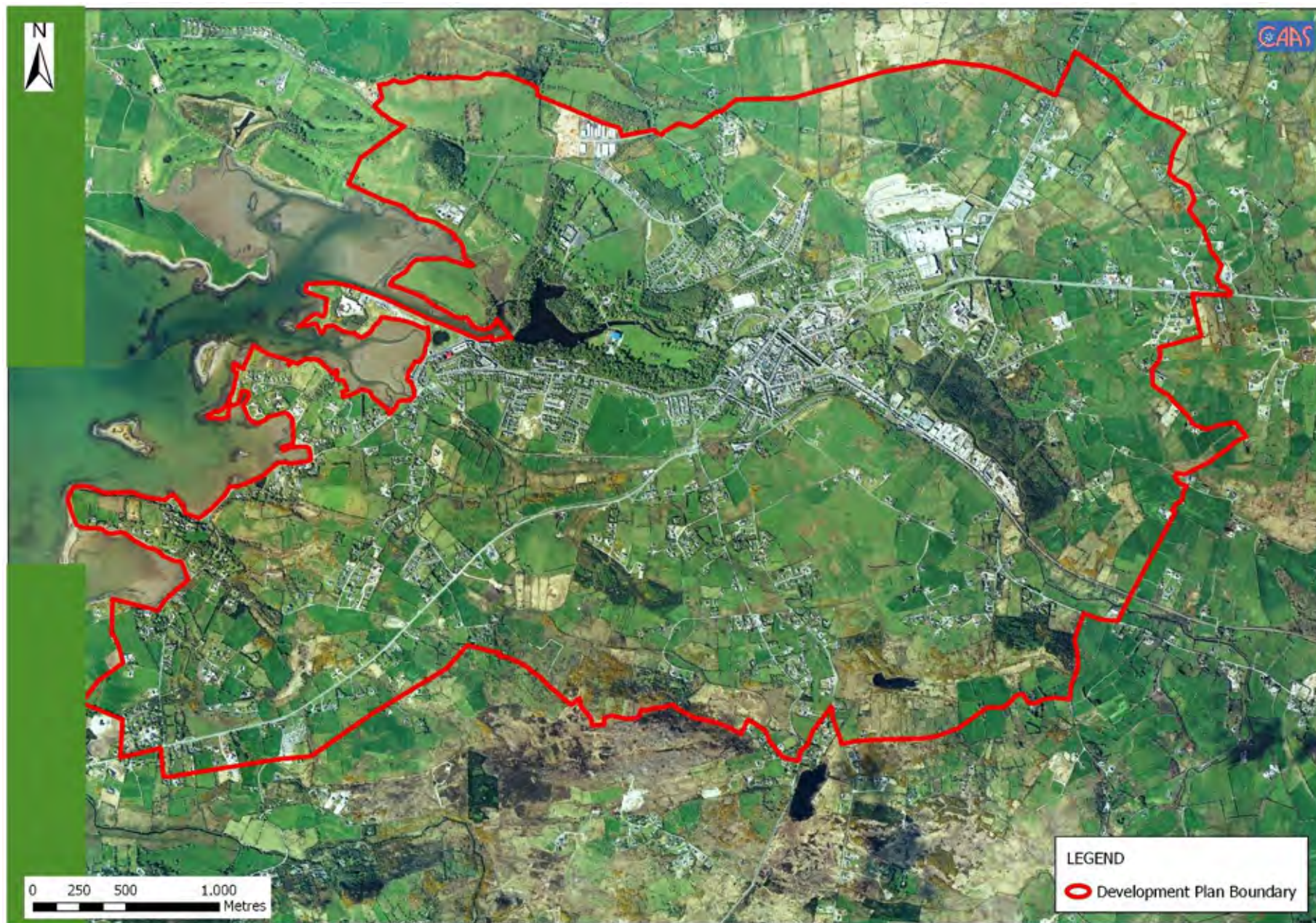


Figure 3.4 Aerial Photograph of Development Plan Boundary

3.2 Biodiversity and Flora and Fauna⁴

3.2.1 Overview of the Habitats

3.2.1.1 Introduction

Westport Town and Environs supports a wide diversity of natural and semi-natural habitats. These habitats host a wide range of wild plant and animal species, which are coming under threat due to development pressures and the increasing demand for new development land. These lands include significant expanses of fresh and salt water and associated habitats, along the Carrowbeg River, Westport Bay and Clew Bay.

The Carrowbeg River runs east to west to through the heart of Westport Town interacting with both the natural and built heritage to give a unique and distinct character. The Carrowbeg River flows into Westport Bay and subsequently, Clew Bay, which is protected by way of ecological designation.

The geomorphology of Clew Bay has resulted in a complex series of interlocking bays and islands creating a variety of marine and terrestrial habitats. A wide range of bird species, marine invertebrates, marine bivalves, seals and other marine mammals use the bays and their adjoining habitats.

Man-made habitats within the Town are also important biodiversity areas. Gardens provide habitats for a range of wildlife including various bird species, invertebrates such as bees and butterflies and mammals such as hedgehogs, mice, rats and foxes. These species move around between gardens using hedgerows and vegetated areas. These urban green spaces, however small, are therefore of importance as they form part of a network of green spaces across the Plan area including gardens, parks, graveyards, amenity walks, railway lines and patches of woodland and scrub within which animals and plants continue to thrive.

⁴ Text in this section is sourced from the County Mayo Draft Biodiversity Action Plan 2008 - 2013 (Mayo County Council, 2008)

Large areas of mixed and natural woodland are situated within the Plan area, particularly at Westport Demesne and Knockranny.

Peatland is the main habitat type in the western part of County Mayo. Peat bogs lie along the southern Plan boundary.

3.2.2 CORINE Land Cover Mapping⁵

The CORINE land cover mapping for the Westport and Environs area for the year 2000⁶ (see Figure 3.5) which classifies land cover indicates that *agricultural lands with natural vegetation* and *transitional woodland scrub* are the main types of semi-natural land cover, particularly in the hinterland of the town. *Continuous urban fabric* indicates the Town Centre and is surrounded by *discontinuous urban fabric*.

An area of *broad leaved forest* cover is found to the west of the Town Centre - this reflects parts of Westport Demesne - while an area of *mixed forest* cover to the east of the Town Centre corresponds with woodlands at Knockranny, including those which are owned by An Coillte.

Areas of *peat bog cover* traverse the southern boundary of the Plan area while areas of *complex cultivation patterns* - which are generally composed of small parcels of diverse annual crops, pasture and/or permanent crops - are situated in two areas emanating from the coast.

Land cover categories which indicate lands that are likely to be most valuable to biodiversity are

⁵ CORINE Land Cover (CLC) is a map of the European environmental landscape based on interpretation of satellite images. Land cover is the observed physical cover, as seen from the ground or through remote sensing, including for example natural or planted vegetation, water and human constructions which cover the earth's surface. Because of the scale of the CORINE data and the method by which it was collected there are likely to be a number of inaccuracies at the local level. It is noted, however, that the land cover shown on the maps is generally accurate. The European Environment Agency, in conjunction with the European Space Agency, the European Commission and member countries is currently updating the CORINE land cover database.

⁶ European Environment Agency Coordination of Information on the Environment (2004) *Ireland's Corine Land Cover 2000 (CLC2000)* Copenhagen: EEA

illustrated on Figure 3.7. Some of these land cover types have come about as a result of human interaction with the landscape: the broad leaved forest at Westport Demesne was planted in the 18th century; the mixed woodlands at Knockranny - which include An Coillte lands - were partially planted during the 20th century; and transitional woodland scrub has arisen as a result of changes in patterns of agriculture.

Land cover differences between the CORINE 2000 data (see Figure 3.5) and data for the year 1990 (see Figure 3.6) are illustrated on Figure 3.8. These differences show that lands at Cloonmonad, Carrowbaun and Knockranny, which were previously occupied by the land cover category *agricultural with natural vegetation*, have undergone urbanisation with land cover of *artificial surfaces* now attributed to these areas. These differences between 1990 and 2000 land cover indicate a cumulative loss of agricultural areas which have natural vegetation and their associated habitats - including their flora and fauna - at these three locations. Differences at Carrowbaun indicate what could be the beginning of a cumulative encroachment on areas of peatlands to the south of the Town.

3.2.3 Habitat Mapping

Habitat mapping was undertaken in County Mayo by Atkins in 2008. The project mapped over 113km² of habitat in nine Towns in Mayo, including Westport. The main habitat types⁷ occurring within the Westport plan area were Buildings and Artificial Surfaces (BL3), Wet Grassland (GS4) and Scrub (WS1).

Smaller areas of ED2 HH3, Marsh (GM1), Transition Bog and Quaking Mire (PF3) occurred throughout.

Thirty-six Local Biodiversity Areas (LBAs) were identified in the County, with five of these occurring in Westport. Table 3.1 summarises the overall conservation value of the LBAs in Westport, their general location and the key management recommendations for each.

⁷ Fossitt, J. (2000), *A Guide to the Habitats of Ireland*. The Heritage Council.

3.2.4 Woodlands

There is a wooded area located approximately 1 km due southeast of Westport Town Centre in the townland of Knockranny which is known as Colonel's Wood and is approximately 27.4 hectares in area. There are three distinguishable woodland types in the woodland: conifer plantation and mixed broadleaved woodland dominate the greater area with riparian woodland along the Carrowbeg River.

The site which is owned and managed by Coillte was planted in 1965/66. The main conifer species are Norway Spruce, Sitka Spruce, Japanese Larch and Western Hemlock. The main broadleaved species are Birch and Ash which are mostly mixed with conifers. There are also small amounts of Beech and Alder mixed through the conifers. Currently up to 40% of the crop consists of broadleaved species.

Colonel's Wood dominates the local landscape with the contours rising sharply on both sides of the Carrowbeg River valley. The south slopes of the valley are not forested and have been developed for residential, commercial and industrial purposes. The woodland itself is used for recreation and there are a number of trails that traverse it.

There is a large area of broad leaved forest at Westport Demesne; details are outlined in Section 3.2.6.5.

3.2.5 Ecological Networks

Article 10 of the Habitats Directive recognises the importance of ecological networks as corridors and stepping stones for wildlife, including for migration, dispersal and genetic exchange of species of flora and fauna. The Directive requires that ecological connectivity and areas of ecological value outside the Natura 2000 network of designated ecological sites are maintained and it recognises the need for the management of these areas through land use planning and development policies. Ecological networks are important in connecting areas of local biodiversity with each other and with nearby designated sites so as to prevent islands of habitat from being isolated entities. Ecological networks are composed of linear features, such as treelines, hedgerows, rivers and canals, which provide corridors or stepping stones for wildlife species moving within their normal range. They

are particularly important for mammals, especially for bats and small birds.

Within and surrounding the Plan area, the ecological networks are made up of components including the Carrowbeg River, its tributaries and banks, the various woodlands, as detailed above, and hedgerows within and surrounding the Plan area, the shorelines of Westport Bay and the wider Clew Bay and lands used for

agriculture. The Carrowbeg River is not a designated salmonid river and there has been no salmonid species recorded from the river for a number of years.

The above components provide habitats for flora and fauna and facilitate linkages for the flora and fauna both between and within designated ecological sites, the non-designated surrounding countryside of Westport Town and Environs.

No.	Value	Location	Management Recommendations
32	High Local	Along Carrowbeg River	Convert to native woodland. Sensitive education and amenity development.
33	Regional	Carrowbaun	Maintain hydrology and water quality. Control gorse scrub.
34	High Local	Carrownalurgan	Discourage agricultural improvement and afforestation
35	Regional	Westport House/Harbour area	Control recreational impacts. Restore Roman Island semi-natural grassland. Consider <i>Spartina</i> control.
36	High Local	North of Town	Maintain semi-natural habitats

Table 3.1 Local Biodiversity Areas in Westport

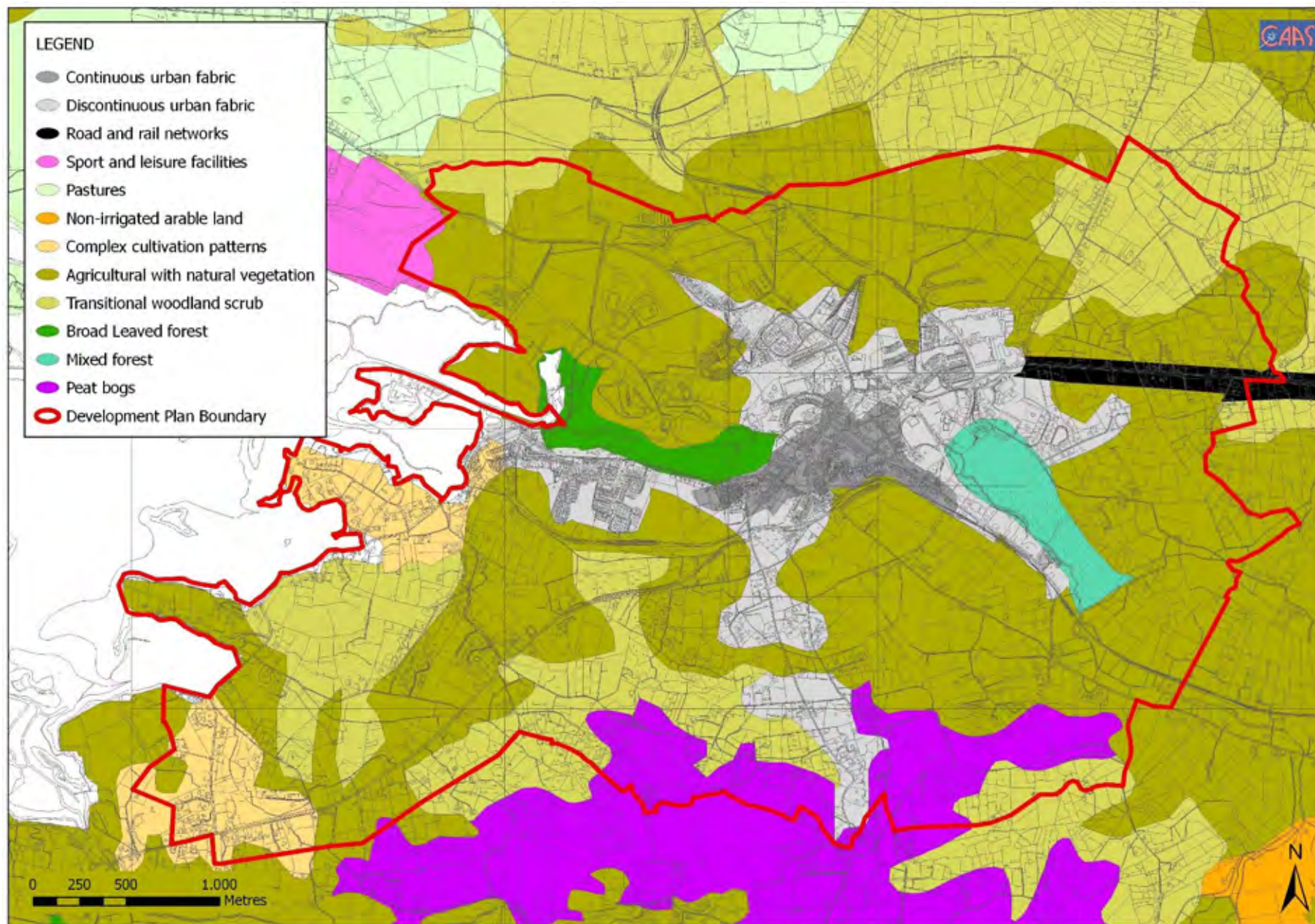


Figure 3.5 CORINE Land Cover 2000

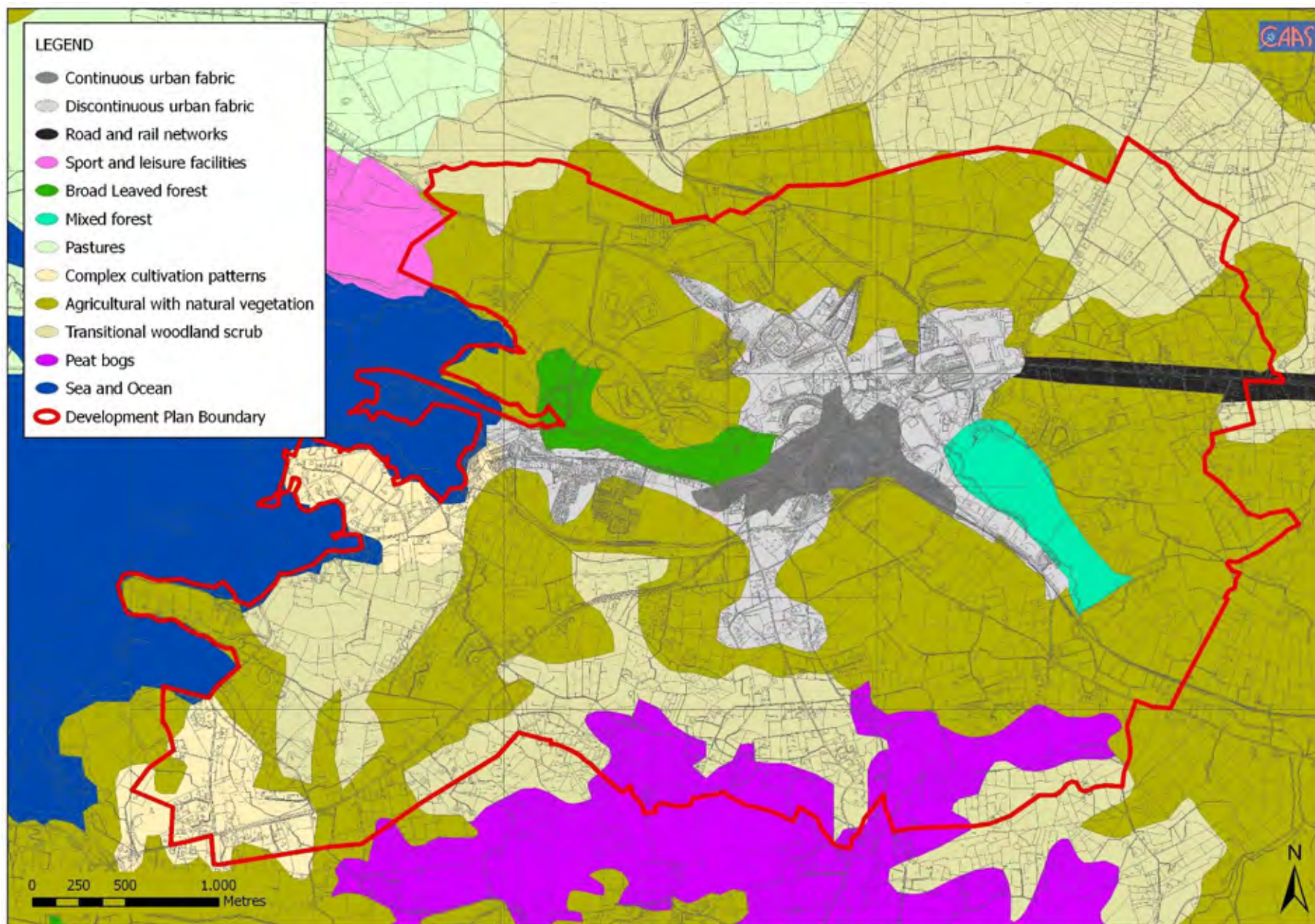


Figure 3.6 CORINE Land Cover 1990

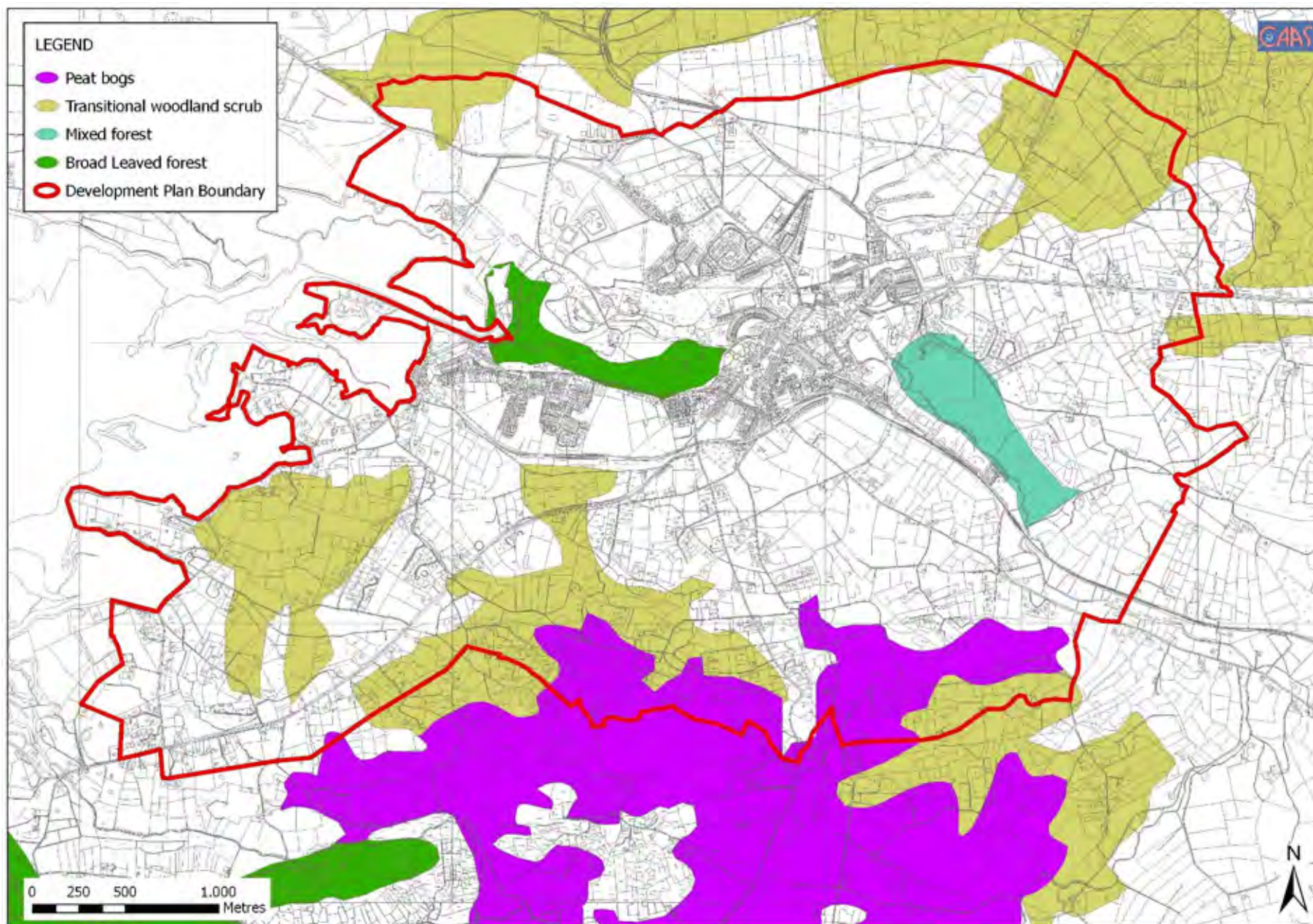


Figure 3.7 CORINE Land Cover Categories which indicate lands which are likely to be most valuable to biodiversity

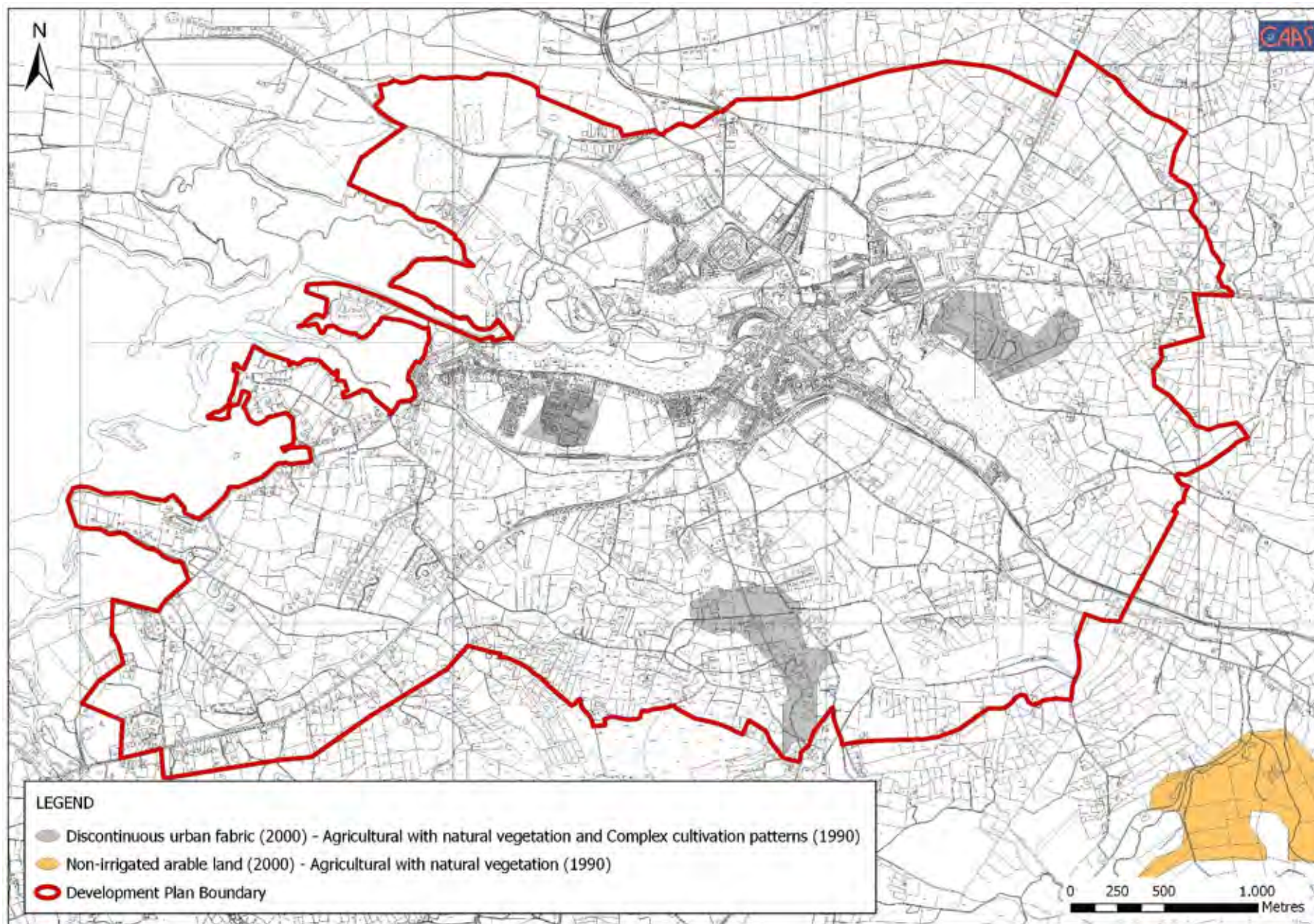


Figure 3.8 CORINE Land Cover Changes 1990 - 2000

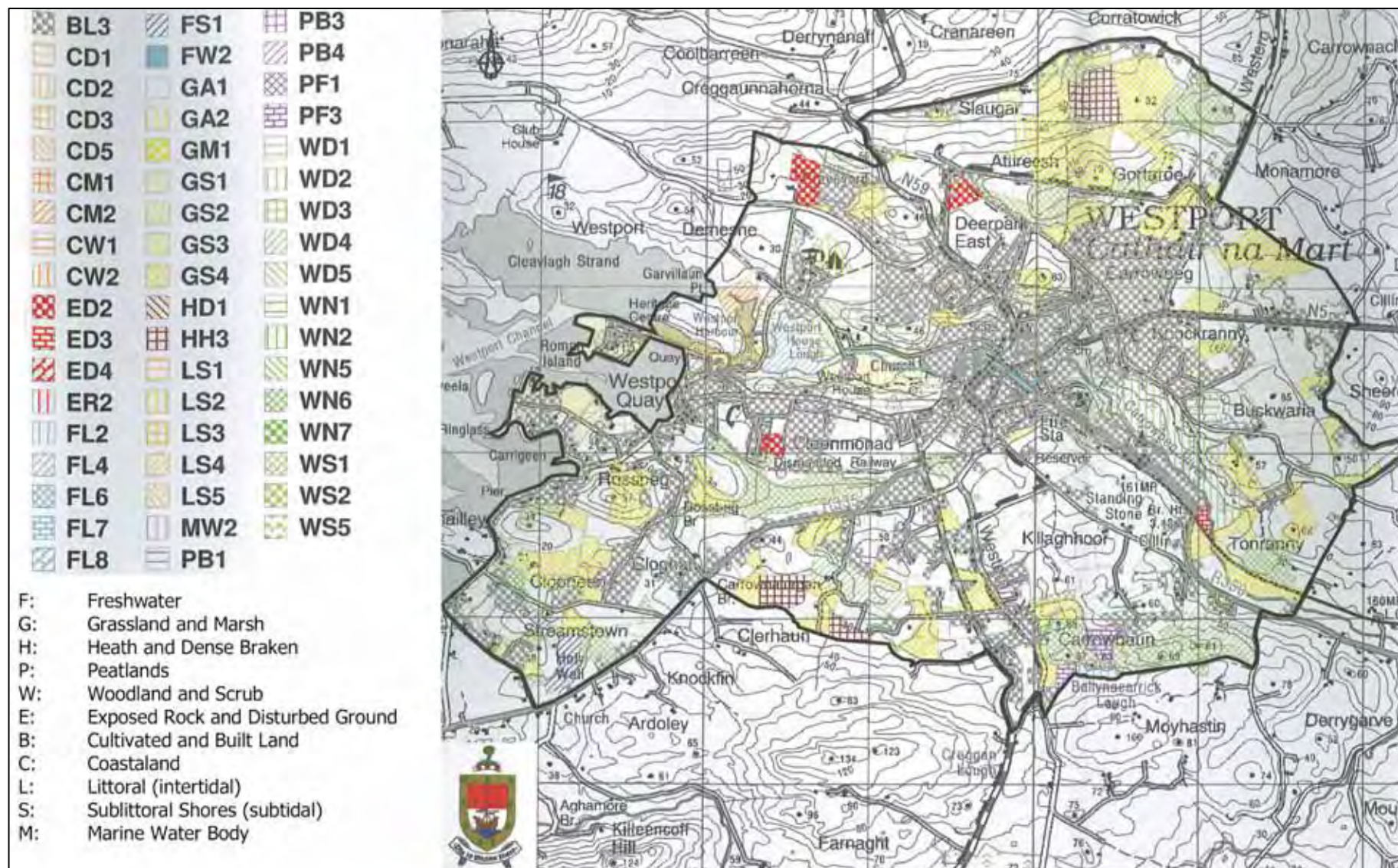


Figure 3.9 Habitat Mapping⁷

3.2.6 Designations

3.2.6.1 Introduction

Westport is located on the easterly shore of Westport Bay which is designated for protection as part of the wider Clew Bay Complex Special Area of Conservation⁸ (SAC) and proposed Natural Heritage Area⁹ (pNHA).

The context of the Plan area in relation to the entire Clew Bay Complex sites and other designated sites within the region is shown on Figure 3.10.

The interaction between the eastern part of the Plan boundary and the Clew Bay Complex site is shown on Figure 3.11. Figure 3.11 also shows part of the Ardogommon Wood proposed NHA which is located approximately one kilometre to the east of the Plan area.

3.2.6.2 Special Areas of Conservation

Special Areas of Conservation (SACs) have been selected for protection under the European Council Directive on the conservation of natural habitats and of wild fauna and flora (92/43/EEC) by the DEHLG due to their conservation value for habitats and species of importance in the European Union.

3.2.6.3 Natural Heritage Areas

Natural Heritage Areas (NHAs) are designated due to their national conservation value for ecological and/or geological/geomorphological heritage. They cover nationally important semi-natural and natural habitats, landforms or geomorphological features, wildlife plant and animal species or a diversity of these natural

⁸ Special Areas of Conservation (SACs) have been selected for protection under the European Council Directive on the conservation of natural habitats and of wild fauna and flora (92/43/EEC) by the DEHLG due to their conservation value for habitats and species of importance in the European Union.

⁹ Natural Heritage Areas (NHAs) are designated due to their national conservation value for ecological and/or geological/geomorphological heritage. They cover nationally important semi-natural and natural habitats, landforms or geomorphological features, wildlife plant and animal species or a diversity of these natural attributes. NHAs are designated under the Wildlife (Amendment) Act 2000. Proposed NHAs were published on a non-statutory basis in 1995, but have not since been statutorily proposed or designated.

attributes. NHAs are designated under the Wildlife (Amendment) Act 2000. The sites are *proposed* sites because they are currently under consideration by the Commission of the European Union.

3.2.6.4 Designated Sites

- **Clew Bay Complex SAC and pNHA**

The Clew Bay Complex SAC and pNHA (Site Code: 001482) is a wide, west-facing bay which is open to the westerly swells and winds from the Atlantic Ocean with Clare Island giving only a small amount of protection. The drumlin landscape of the bay was formed during the last glacial period when sediments were laid down and smoothed over by advancing ice - the sea has subsequently inundated this area, creating a multitude of islands. The geomorphology of the bay has resulted in a complex series of interlocking bays creating a wide variety of marine and terrestrial habitats.

The juxtaposition within Clew Bay of a wide variety of habitats, including seven listed on Annex I of the Habitats Directive, and the combination of important flora and fauna, including one Red Data Book plant and two mammals listed on Annex II of the Habitats Directive, make this a site of considerable national and international importance.

On designation, this SAC will become part of Natura 2000 - a network of protected areas throughout the EU established under the Habitats Directive.

The Clew Bay Complex SAC and pNHA is mapped on Figure 3.10 and Figure 3.11.

- **Ardogommon Wood pNHA**

Ardogommon Wood proposed Natural Heritage Area (Site Code: 001470) is found on the hills southeast of Westport. The area of interest is on a steep slope overlooking the railway and has a partly planted and partly natural origin.

Ardogommon Wood is of particular interest as its woodland flora and fauna is better developed than in those nearer to Westport.

Ardogommon Wood pNHA is mapped on Figure 3.10 and Figure 3.11.

3.2.6.5 Westport Demesne Tree Preservation Orders

Westport Demesne is located in the east of the Plan area along the banks of the Carrowbeg River and includes woodlands which are of significant local ecological importance.

Tree Preservation Orders (TPOs) enable local authorities to preserve any single tree or group of trees and brings them under planning control. Tree preservation orders are only made if it appears that a tree or group of trees need to be protected in the interests of amenity in the environment. The Planning and Development Act 2000 has further outlined the legal framework and procedures provided in the 1963 Act to make a TPO.

A 1991 TPO exists within Westport Demesne which covers two areas of woodland:

- Mixed woodlands consisting primarily of Oak, Ash, Beech, Pine and Sycamore of approximately 57 acres known as North Wood (part of), Egan's Grove, Short Course and Boat House Island; and,
- Mixed woodlands consisting primarily of Oak, Ash, Elm, Beech and Sycamore of approximately 40 acres known as South Wood.

In addition to their value to biodiversity the Westport Demesne woodlands offer opportunities for recreation. A 2007 report identified that the Demesne's woodlands are in a state of decline and that active forest management was not evident¹⁰.

3.2.6.6 Shellfish Waters

The European Communities (Quality of Shellfish Waters) Regulations 2006 (SI No. 268 of 2006) designate and protect 14 Shellfish Waters in Ireland, giving effect to the Shellfish Waters Directive 1979¹¹ and revoking previous regulations (SI No. 200 of 1994 and SI No. 459 of 2001). The waters of Clew Bay¹² are one of

the Shellfish Waters designated and protected by these Regulations.

The Regulations require that the waters in Clew Bay are protected from the effects of the functions of planning authorities and require such functions to be performed in a manner that will comply with certain values for water quality which are specified in the Regulations.

The waters covered by the Regulations are the same as those which are listed on the Register of Protected Areas (see Section 3.2.6.7) and those for which an Oyster Fishery Order was granted to the Clew Bay Oyster Co-operative Society in 1979.

In addition to the Shellfish Waters designation, the Register of Protected Areas designation and the Oyster Order, there are two finfish licensed areas in Clew Bay further out at Clare Island which are used as harvesting sites for organic salmon.

3.2.6.7 Register of Protected Areas

In response to the requirements of the Water Framework Directive a number of water bodies, or parts of water bodies, which must have extra controls on their quality by virtue of how their waters are used by people and by wildlife have been listed on Registers of Protected Areas (see Section 3.5).

Clew Bay has been listed on the RPA for Shellfish Areas. The waters listed on the RPA are mapped on Figure 3.12 and are similar to those which are protected as Shellfish Waters (see Section 3.2.6.6 above).

3.2.7 Existing Problems

Fragmentation of ecological corridors has occurred as a result the development of Westport Town and Environs. It is likely that further development will continue to cause fragmentation of ecological corridors within the Plan area.

Land cover differences between the CORINE 1990 data and the data for the year 2000 indicate a cumulative loss of agricultural areas

these Regulations and kept at the head office of the Department of Communications, Marine and Natural Resources or at such other place as the Minister has publicly notified. The designated area covers approximately 16,000 ha, up to the high water mark.

¹⁰ RPS/Brady Shipman Martin (2007) Westport House and Demesne, Planning and Development Appraisal

¹¹ Council Directive 79/923/EEC of 30 October 1979 on the quality required of shellfish waters

¹² The designated area covers all that area up to the high water mark and east of a line drawn from the most northerly point at Old Head to the most easterly point at Gubbaun Point as shown on a map of public record certified by the Minister for the purposes of

which have natural vegetation and their associated habitats - including their flora and fauna. Differences in lands at Carrowbaun indicate what could be the beginning of a cumulative encroachment on areas of peatlands to the south of the Town.

3.2.8 Evolution of Biodiversity and Flora and Fauna in the absence of a Development Plan

In the absence of a Development Plan, development would have no guidance as to where to be directed and planning applications would be assessed on an individual basis with flora and fauna, habitats and ecological connectivity protected under a number of strategic actions relating to biodiversity and flora and fauna protection. The evolution of biodiversity and flora and fauna would be dependent on the rate and extent of any such developments which would take place and these developments would be considered with regard to the Mayo County Development Plan 2008-2014. A Development Plan provides an opportunity - which might not otherwise be provided - to contribute towards the occurrence of development in an appropriate and sustainable manner by integrating the ecological protection measures required by the Habitats Directive with the planning and development management of vulnerable areas within the Town.

Future developments within Westport could affect biodiversity and flora and fauna;

- new development along the edges of designated ecological sites could result in a reduction in habitats and could therefore reduce ecological connectivity at the edges of these sites;
- weakly controlled new development along or adjacent to the banks of rivers could result in a reduction in ecological connectivity within and between these and other habitats;
- new developments which pollute water bodies would be likely to adversely impact aquatic biodiversity and flora and fauna including salmonid species and other species protected under Annex II of the Habitats Directive.

- greenfield development would adversely affect biodiversity and flora and fauna by replacing natural or semi natural habitats with artificial surfaces - the significance of such effects would be dependent on whether such developments would result in the loss of habitats or species of importance as well as the cumulative loss and fragmentation of habitats and species as a result of all greenfield developments.

Climate change has the potential to result in the loss of habitats - including those within the Clew Bay SAC and pNHA - through rising sea levels and increased levels of surface run-off. Some of the coastal habitats which are important to bird populations could eventually be inundated. Increased precipitation could disrupt the salinity gradients within the Carrowbeg estuarine system and - coupled with likely increased sedimentation - this could affect water quality and consequently the spawning the nursery grounds of salmonid species and shellfish production levels.

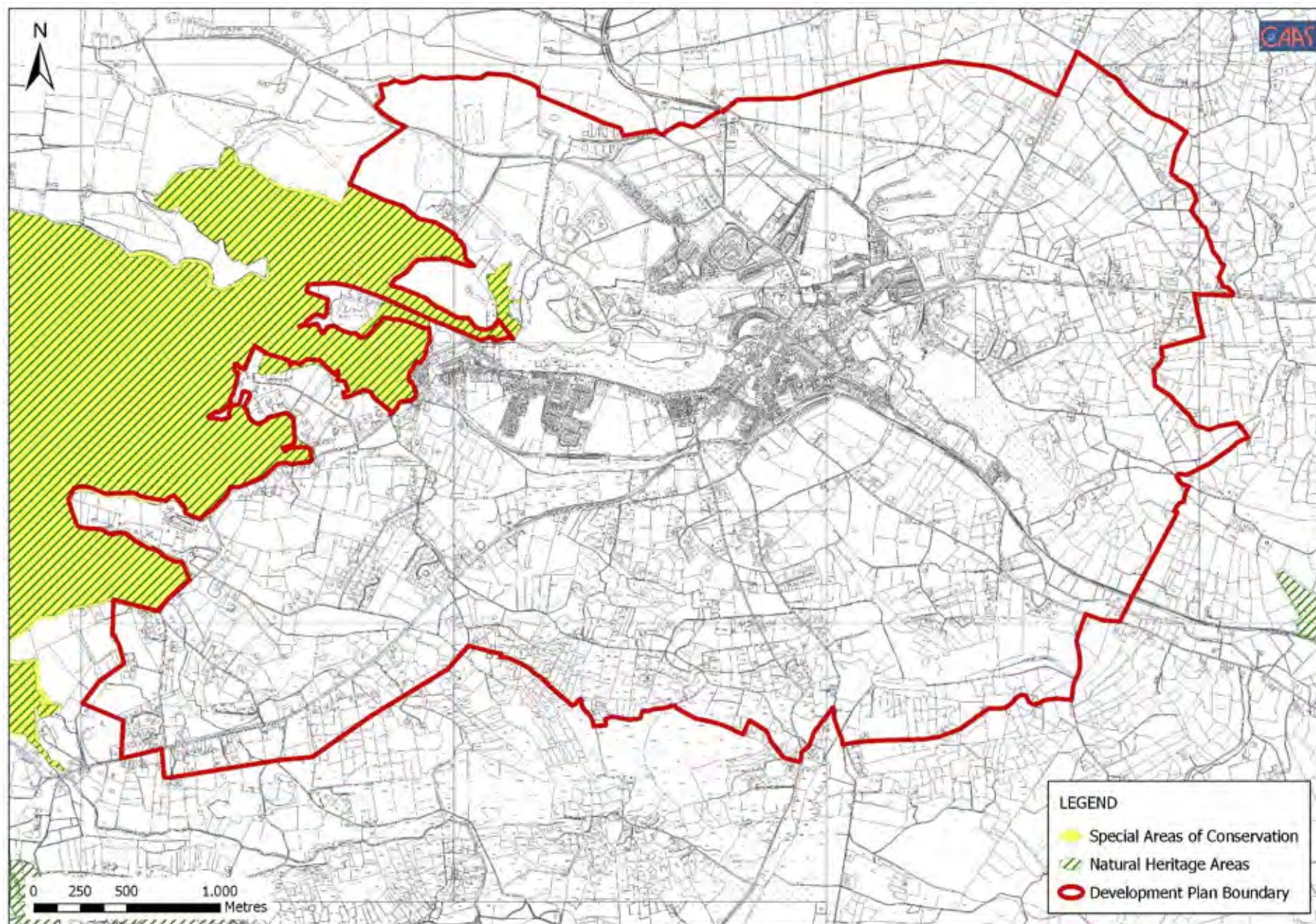


Figure 3.10 Context of Westport Town and Environs in relation to the Ecologically Designated Sites within the region

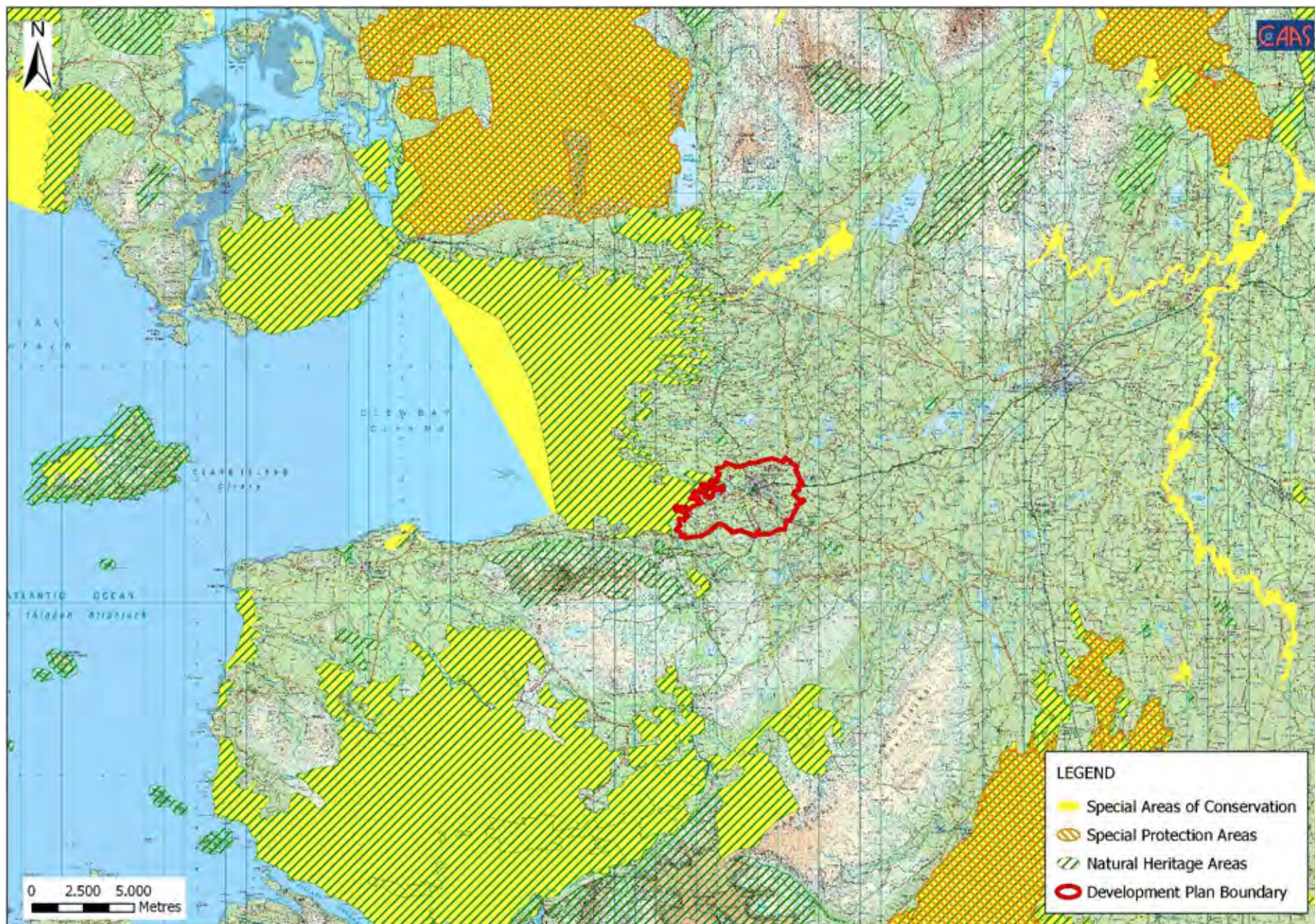


Figure 3.11 Interaction between the Plan boundary and the boundary of the Clew Bay Complex site

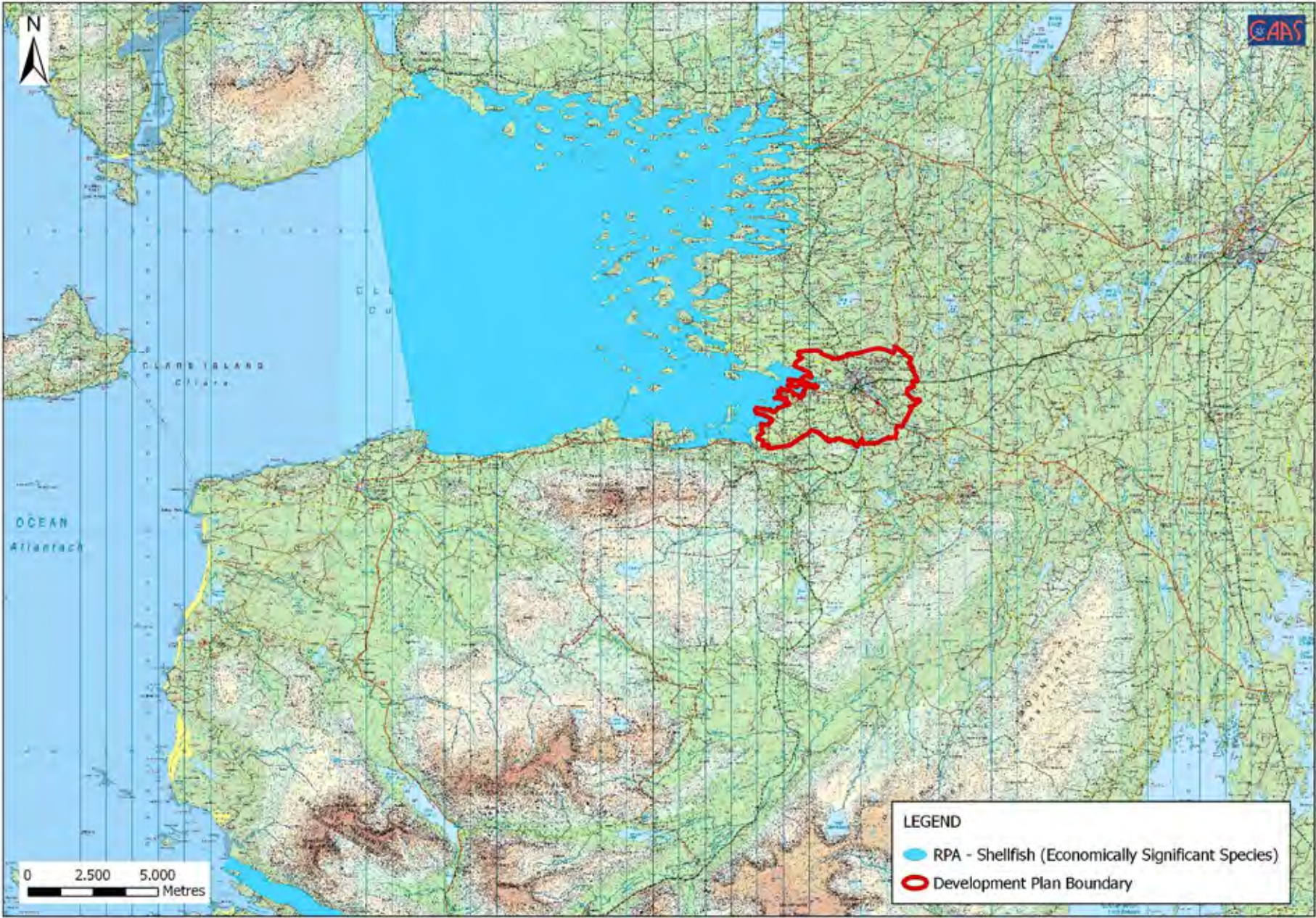


Figure 3.12 Water Framework Directive Register of Protected Areas for Shellfish

3.3 Population and Human Health

3.3.1 Population

Westport Town together with its Environs is the third largest settlement in County Mayo with an estimated population of 6,432 persons living within the Plan area. This is calculated by adding the estimated populations of Westport Town (5,163), Environs of Westport (312) and the remainder of LAP area (957).

Population is measured in Ireland by the Central Statistics Office (CSO). The boundaries used by the CSO to measure the population of three areas in or around Westport - *Westport Town*, *Westport Environs* and *Westport Rural* - do not correspond, in the case of the CSO's *Westport Town*, to the boundaries used for the administrative boundaries of Westport Town Council, or, in the case of the CSO's *Westport Environs*, to the environs area which together with the administrative area of Westport Town Council makes up the Development Plan area.

Population change over the last three intercensal periods for the CSO areas of Westport Town, Westport Environs and Westport Rural is shown on Table 3.2.

Population for *Westport Town* (boundaries as defined by the CSO) stood at 5,163 in 2006 having fallen by 151 persons or 2.8% since the previous census carried out in 2002.

This decrease digresses from the population increase experienced in the previous 1996 to 2002 intercensal period - during this period population rose from 4,253 to 5,314, a growth of 1,061 persons or 24.9%.

A similar pattern exists in the population of Westport Environs (boundaries as defined by the CSO) which experienced a decrease of 2.5% over the period 2002-2006 after experiencing an increase of 19.9% over the previous intercensal period.

The population of Westport Rural (boundaries as defined by the CSO) rose in both periods with an increase of 9.5% in the 2002-2006 period and 19.2% in the 1996-2002 period.

The planning authorities have estimated that the population of the Plan area will increase to approximately 8,770 persons by 2016, the end of the Development Plan period.

Table 3.2 outlines the population figures for the last three intercensal periods.

Area	Westport Town			Westport Environs			Westport Rural		
Census Year	1996	2002	2006	1996	2002	2006	1996	2002	2006
Population	4,253	5,314	5,163	267	320	312	1,121	1,336	1,463
Population Change on Previous Census	-	1061	-151	-	53	-8	-	215	127
% Population Change on Previous Census	-	24.9	-2.8	-	19.9	-2.5	-	19.2	9.5

Table 3.2 Westport Population Change 1996-2006¹³

¹³ CSO (various) *Census 2006 Volume 1 - Population Classified by Area; Census 2002 Volume 1 - Population Classified by Area; Census 1996 Volume 1 - Population Classified by Area* Cork: CSO.

3.3.2 Human Health

With regard to human health, impacts relevant to the SEA are those which arise as a result of interactions with environmental vectors (i.e. environmental components such as air, water or soil through which contaminants or pollutants, which have the potential to cause harm, can be transported so that they come into contact with human beings).

Human health has the potential to be impacted upon by environmental vectors including water, soil and air. Hazards or nuisances to human health can arise as a result of exposure to these vectors arising from incompatible adjacent land uses for example. These factors have been considered with regard to the description of: the baseline of each environmental component; and the identification and evaluation of the likely significant environmental effects of implementing the plan and the alternatives.

The Air Framework Directive deals with each EU member state in terms of *Zones* and *Agglomerations*. For Ireland, four zones are defined in the Air Quality Regulations (2002). Westport falls under Zone D which has a current air quality status of *Good*. This is discussed further in Section 3.6.

3.3.3 Existing Problems

Certain environmental vectors within the plan area - such as air, water or soil - have the potential to transport and deposit contaminants or pollutants, which have the potential to cause harm and adversely impact upon the health of the area's population. Issues relevant to this potential in Westport and its Environs are expanded upon in the following sections.

3.3.4 Evolution of Population and Human Health in the absence of a Development Plan

The occurrence of growth in areas not identified as having environments which are compatible to such land uses can result in significant adverse impacts on the environment. As - according to current population estimates - there is likely to be further increases in Westport's population over the coming years, there is a need to direct growth towards the most robust and away from

the most sensitive environments. This can be done by policies and objectives which can be included in a Development Plan and by zoning sufficient amounts of land in order to ensure that growth is directed towards the most compatible environments. In the absence of a Development Plan such direction of growth would be unlikely to occur and would be likely to result in significant adverse impacts upon a range of environmental components including the landscape, biodiversity, flora and fauna, cultural heritage and water resources.

In the absence of a Development Plan for the area there would be no framework for the provision of infrastructure to serve existing and future development and this could delay or hinder the provision of infrastructure which would have the potential to result in impacts on environmental vectors to which humans are exposed e.g. a lack of appropriate waste water treatment infrastructure could adversely impact upon drinking water quality and subsequently upon human health.

3.4 Soil

3.4.1 Introduction

Soil is the top layer of the earth's crust. It is formed by mineral particles, organic matter, water, air and living organisms. Soil can be considered as a non-renewable natural resource because it develops over very long timescales. It is an extremely complex, variable and living medium and performs many vital functions including: food and other biomass production, storage, filtration and transformation of many substances including water, carbon, and nitrogen. Soil has a role as a habitat and gene pool, serves as a platform for human activities, landscape and heritage and acts as a provider of raw materials. Such functions of soil are worthy of protection because of their socio-economic as well as environmental importance.

Soils in any area are the result of the interaction of various factors, such as parent material, climate, vegetation and human action.

To date, there is no legislation which is specific to the protection of soil resources. However, there is currently an EU Thematic Strategy on the protection of soil which includes a proposal for a Soil Framework Directive which proposes

common principles for protecting soils across the EU.

3.4.2 Soil Type¹⁴

Figure 3.14 shows the distribution of soils across the Plan area. The northern half of the Plan area is covered by *gleys* while the southern half of the Plan area is covered by *podzols*. *Peaty podzols* are found to the south of the Plan area while *brown earths* and *rendzinas* are found to the south east of the Plan area.

Gleys are soils in which the effects of drainage impedance dominate and which have developed under the influence of permanent or intermittent waterlogging. The impedance may be due to a high water table, to a 'perched' water table caused by the impervious nature of the soil itself, or to seepage of runoff from slopes. Most gleys have poor physical conditions, which make them unsuitable for cultivation or for intensive grassland farming. Their productive capacity is also affected by restricted growth in spring and autumn.

Podzols are generally poor soils, depleted of nutrients by heavy rainfall leaching through an organic layer (the podzolisation process). They have high lime and fertiliser requirements and are usually found in hill and mountain areas where mechanical means of reclamation and cultivation are not feasible. For these reasons they are often devoted to forestry.

It is noted that in certain areas to the south of the Plan area peaty podzols and shallow brown earths and rendzinas occur.

Brown earths are relatively mature, well-drained, mineral soils possessing a rather uniform profile that have not been extensively leached or degraded. Most brown earths occur on lime-deficient parent materials, and are, therefore, acid in nature; these are called acid brown earths. These soils, in general, possess medium textures (sandy loam, loam, sandy clay loam) and this, together with their friability, desirable structure and drainage characteristics, accounts for the fact that they are amongst the most extensively cultivated soils. Although often of relatively low nutrient status, they respond well to manurial amendments.

Rendzinas are shallow soils, usually not more than 50 cm deep, derived from parent material containing over 40% carbonates. The surface horizon is very dark in colour, with a strong structure and with a neutral or alkaline reaction. Their shallow depth often limits the use range of rendzinas. They are suited mostly to extensive grazing but where sufficient deep they can also be excellent tillage soils.

3.4.3 Geology

The soils and habitats of the Westport area have been influenced by the underlying geology (see Figure 3.13). Precambrian rocks, laid down over 600 million years ago dominate the western half of County Mayo. The main rock types include schist and gneiss. Sandstone and shale are found in the areas south of Clew Bay, where upland bog is common.

3.4.4 Westport Harbour¹⁵

3.4.4.1 Introduction

A proposal for a marina facility at Westport harbour has prompted a number of reports and studies to be carried out on the area. Westport Harbour is located at the south east corner of Clew Bay and is accessible from outer Clew Bay through a narrow shallow channel, 7 km long, extending from Inishlaghan into Roman Island, the outermost end of the Westport Quay. The channel is navigable at high tide.

3.4.4.2 Dredging

Environmental issues relating to the development of the proposed facility at Westport Harbour include the following:

- Requirement for dredging and the amount of material to be removed:

The required dredge level within the proposed marina area is mainly dependent on the draught depth which is being provided for the marina vessels and the lowest water level to be contained within the marina. The amount of material which would be required to be removed is not known at this time.

- Type of material to be dredged:

¹⁴ Teagasc, GSI, Forest Service & EPA (2006) *Soils and Subsoils Class* Dublin: DEHLG

¹⁵ Text in this section is sourced from: Patrick J. Tobin and Co. Ltd. (2002) *Proposal for a Marina Facility at Westport Harbour, Feasibility Review*.

At this stage, an accurate assessment of the dredge material type is not possible without a comprehensive ground investigation and material testing (physical, chemical and biological). The material identified during trial pit excavations within the harbour bed comprised silt, silty gravel, boulders and assumed bedrock. A chemical and biological analysis of the proposed dredged material would be required to establish the presence or otherwise of any contaminants.

- Methods of disposal of dredged material:

The development may require a dumping at sea licence and/or a waste licence depending on how dredged material is to be disposed of. The dumping of dredge spoil at sea would require a licence under the Dumping at Sea Act, No. 14/1996. The temporary storage of dredge spoil may require a Waste Licence under the Waste Management Act, No. 10/1996.

3.4.5 Clew Bay Site of Geological Interest

Clew Bay is an area of geological interest due to its geomorphological significance as one of the few drowned drumlin landscapes in the world.

Drumlins are low, elongated hills composed of glacially deposited materials and usually occur in clusters of similarly shaped, sized and oriented hills - known as fields or swarms. Drumlins are likely to have been shaped by the movement of overlying glaciers with their long axis parallel to the movement of the ice and their blunter end facing the direction from which the ice came.

The drumlins at the Clew Bay field were submerged at the end of the last ice age when melting ice caused the sea level to rise. The westernmost drumlins in the field have been almost completely eroded by the force of the Atlantic waves.

3.4.6 Existing Problems relating to Soil

The removal and disposal of material dredged from Westport Harbour could, if unmitigated, cause problems for water quality and ecology.

Greenfield development involves the building upon and thereby sealing off of non-renewable

subsoil as well as topsoil. Such sealing can prevent soils from performing certain functions such as drainage. Soil sealing in the Plan area has been indicated by land use changes from *agricultural areas which have natural vegetation* to *artificial surfaces* (see Section 3.2.2).

3.4.7 Evolution of Soil in the absence of the Development Plan

In the absence of a Development Plan for Westport and its Environs, the evolution of soil would be dependent on developments which take place.

The currently proposed Soil Directive suggests encouraging the rehabilitation of brownfield sites, thus reducing the depletion of greenfield sites. However, in the absence of a Development Plan there would be no framework for the appropriate direction of growth towards brownfield sites which are found within the Plan area. As a result, greenfield development would be likely to occur on an increased basis - both within and outside of the Plan area - and would result in the building upon and thereby sealing off of the non-renewable subsoil and soil resources.

Soil erosion due mainly to surface erosion resulting from construction works and agricultural / forestry operations would have the potential to impact on water quality and fishery/shellfisheries resources.

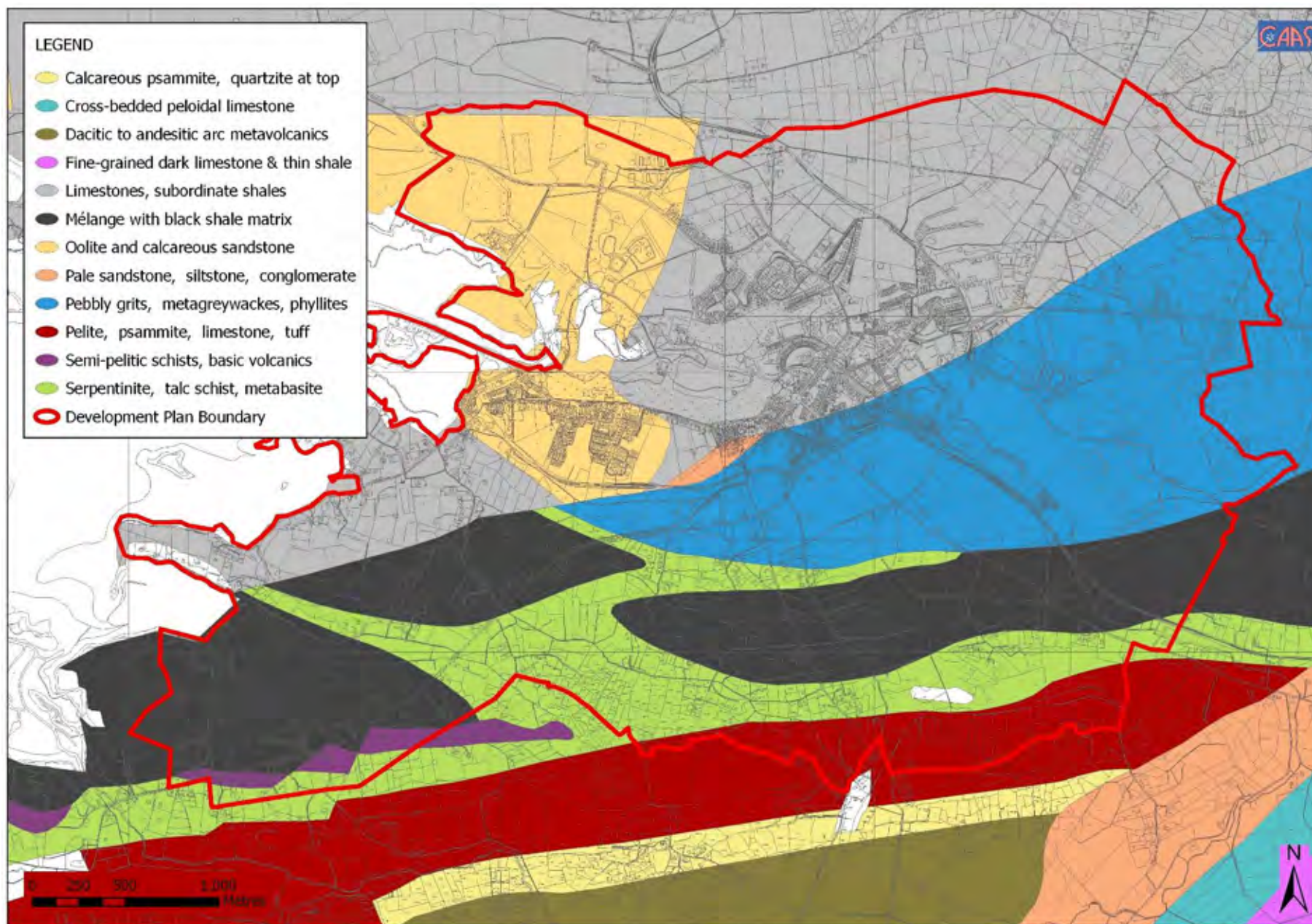


Figure 3.13 Geology in the Westport and Environs Plan Area

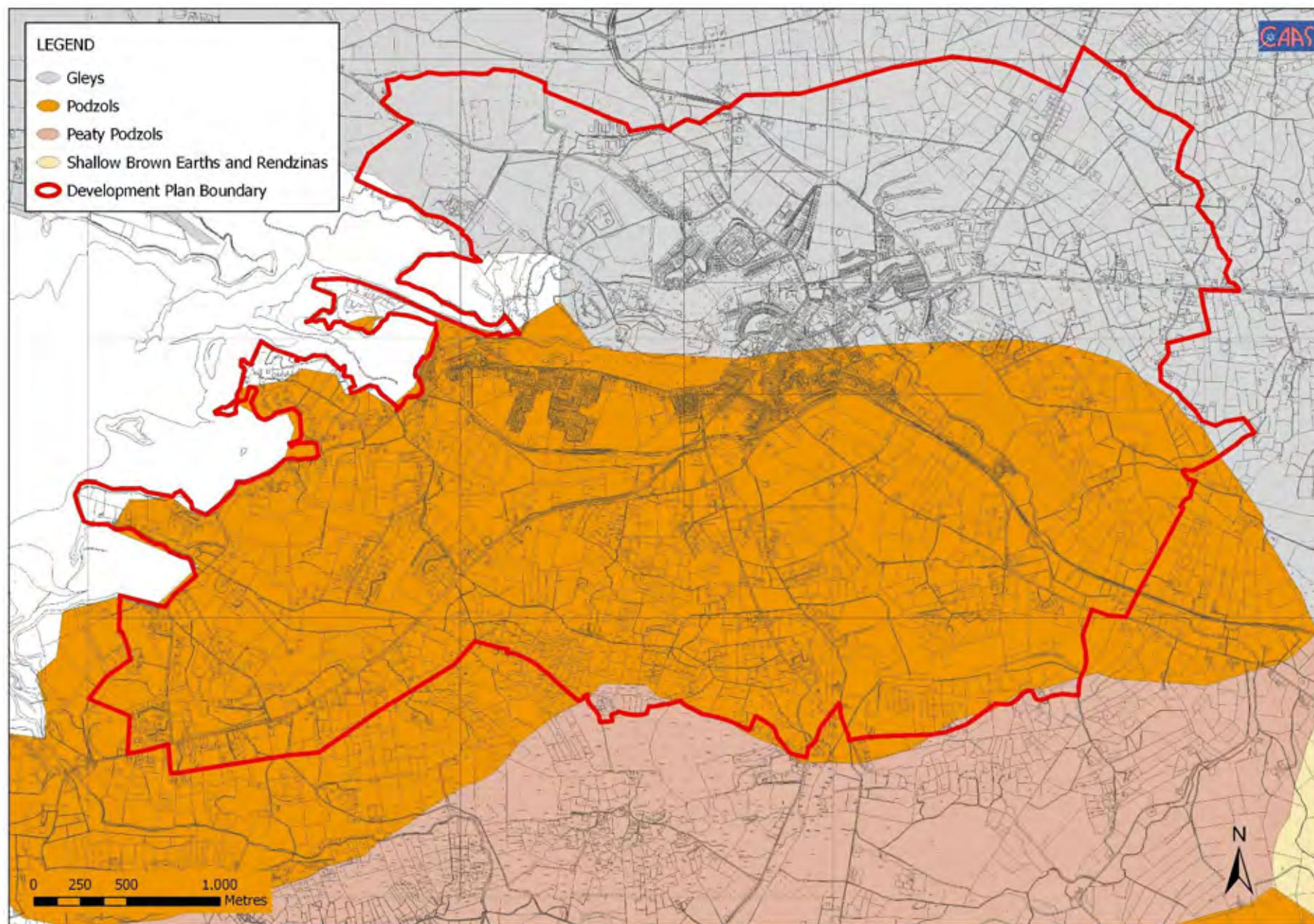


Figure 3.14 Soils in the Plan area

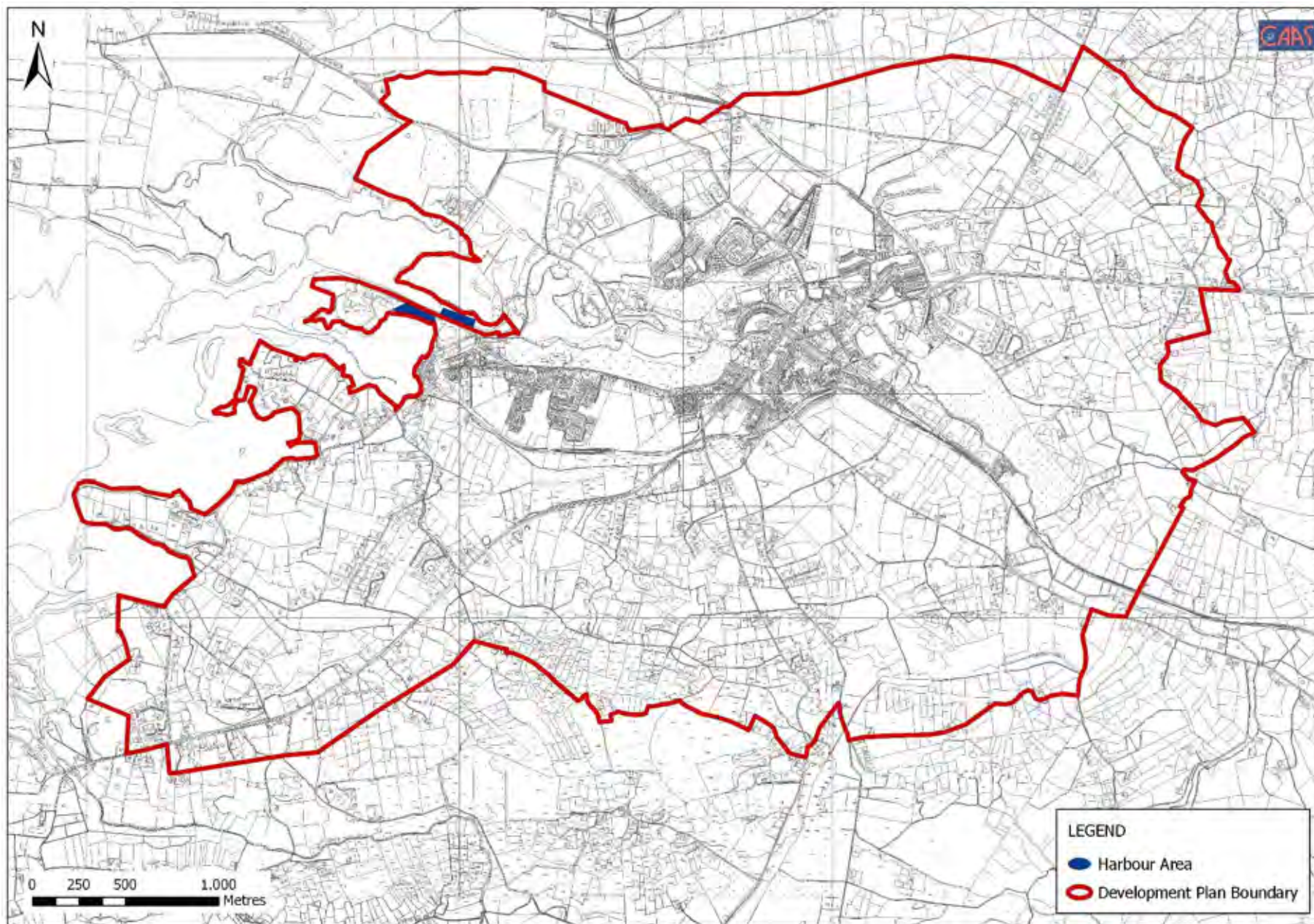


Figure 3.15 Proposed Harbour Location

3.5 Water

3.5.1 Introduction

Water within and surrounding Westport has many functions: it provides drinking water to the area's population; it sustains the biodiversity and flora and fauna described under Section 3.2; and it is an integral part of the landscape both within the Town and across the wider surrounding Westport and Clew Bay areas.

3.5.2 Potential Pressures on Water Quality

Human activities, if not properly managed, can cause deterioration in water quality. Pressures exerted by human activities include the following:

- Sewage and other effluents discharged to waters from point sources, e.g. pipes from treatment plants;
- Discharges arising from diffuse or dispersed activities on land;
- Abstractions from waters; and
- Structural alterations to water bodies.

A *point source* pressure has a recognisable and specific location at which pollution may originate. Examples of significant point source pressures include direct discharges from waste water treatment plants, licensed discharges from industrial activities, landfills, contaminated lands (e.g. disused gas works) and mines.

A *diffuse source* pressure unlike a point source is not restricted to an individual point or location. The source of a diffuse pressure can be quite extensive. Significant examples of diffuse pressures include runoff from forestry and agricultural lands.

Excessive *abstractions* from surface waters and groundwater for drinking and industrial purposes can create pressures on the ability of a water body to maintain both chemical and ecological status.

Structural alterations such as river straightening; construction of embankments, weirs, dams, port facilities and dredging can create conditions

such that a water body is no longer able to support the natural ecology which would have existed prior to such modifications. These pressures are also referred to as morphological pressures.

3.5.3 The Water Framework Directive

3.5.3.1 Introduction and Requirements

Since 2000, Water Management in the EU has been directed by the Water Framework Directive 2000/60/EC (WFD). The WFD requires that all member states implement the necessary measures to prevent deterioration of the status of all waters - surface, ground, estuarine and coastal - and protect, enhance and restore all waters with the aim of achieving good status by 2015. All public bodies, including Westport Town Council and Mayo County Council, are also required to: coordinate their policies and operations so as to maintain the good status of water bodies which are currently unpolluted; and improve polluted water bodies to good status by 2015.

3.5.3.2 River Basin Districts and Water Bodies

For the purpose of implementing the WFD, Ireland has been divided into eight river basin districts or areas of land that are drained by a large river or number of rivers and the adjacent estuarine / coastal areas. The management of water resources will be on these river basin districts. The Westport Town and Environs area is located in the Western River Basin District (WRBD).

Within each river basin district - for the purpose of assessment, reporting and management - water has been divided into groundwater, rivers, lakes, estuarine waters and coastal waters which are in turn divided into specific, clearly defined *water bodies*.

3.5.3.3 WFD Risk Assessments

In order to achieve the objectives of the WFD it is necessary:

- To assess the risk that water bodies may not achieve good quality status;
- To identify the pressures from human activities causing this risk; and,

- To develop strategies and management plans to minimise the risk.

Risk assessment procedures were developed at national level and applied across all River Basin Districts in order to analyse the impact of the pressures referred to under Section 3.5.2. The risk assessments were predictive, i.e. they examined each pressure and predicted the magnitude which would be likely to have a negative impact.

Each water body has been assessed, on the basis of human activity, whether it is *at risk* or *not at risk* of failing to achieve the WFD's objectives by 2015. The ratings used for reporting this assessment are:

- (1a) *At Significant Risk* - water body is at risk of failing to meet good status in 2015;
- (1b) *Probably at Significant Risk* - water body is thought to be at risk of failing to meet good status in 2015 pending further investigation;
- (2a) *Probably Not at Significant Risk* - the water body is expected to meet good status in 2015; and,
- (2b) *Not at Significant Risk* - water body is expected to meet good status in 2015, pending further investigation.

Water bodies placed in the (1a) *At Significant Risk* category will need improvement to achieve the required status while water bodies in the (1b) *Probably at Significant Risk* category are likely to need improvement in order to achieve the required status.

3.5.3.4 WFD Registers of Protected Areas

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

The WFD requires that these RPAs contain: areas from which waters are taken for public or private water supply schemes; designated shellfish production areas; bathing waters; areas which are affected by high levels of substances most commonly found in fertilizers, animal and human wastes - these areas are considered

nutrient sensitive; and, areas designated for the protection of water dependent habitats or species e.g. salmonid waters, Special Areas of Conservation (SACs) and, Special Protection Areas (SPAs).

A number of water bodies within and surrounding Westport have been listed on the WFD Register of Protected Areas (RPAs) and are as follows (see Figure 3.24):

- Westport Bay and parts of Clew Bay have been listed on the RPA for *Shellfish Areas*,
- Groundwater underlying and surrounding the Plan Area is listed on the RPA for *Drinking Water GW*

3.5.3.5 River Basin Management Plan

Local Authorities located in the WRBD, including Westport Town Council and Mayo County Council, are preparing a management plan which will be implemented in order to help protect and improve all waters in the WRBD. This Management Plan will provide specific policies for individual river basins in order to implement the requirements of the WFD. The first River Basin Management Plan for the Western RBD was published at the end of 2008 for public consultation.

3.5.4 Rivers

3.5.4.1 Introduction

The two largest surface water bodies which flow through the Plan area are the Carrowbeg River - which flows through the centre of Westport Town - and the Carrownalurgan River - which flows through the south of the Town.

Of these rivers the Carrowbeg River is the largest. The Carrowbeg rises in the hills near Raigh approximately 10 km to the south east of Westport. It initially flows in a northerly direction for about 6 km before turning and flowing in a north westerly direction for 4 km until it enters the sea at Westport. There are two noteworthy lakes in the upper catchment, Knappaghbeg Lake and Kinlooy Lake.

The Carrowbeg River is not considered a significant fishery. It was one of the first rivers in Ireland to be canalised, and while there was a notable sea trout fishery present historically, there have been no salmonid species recorded

from the river for a number of years. There is occasionally some stocking of the lower reaches of the Carrowbeg River in Westport Town with brown trout (*Salmo trutta*), but this is at a low level for community use only.

There is a long history of industrial development in the Carrowbeg River valley, with quarry developments and fish farms upstream and intensive industrial activity just south of the Colonel's Wood area.

The Carrownalurgan River flows from Greggan Lough, south of Westport Town. It flows through peat bog, woodland scrub and before it enters the sea at Westport Bay.

3.5.4.2 Water Quality

Figure 3.16 maps the water quality of the Carrowbeg River. It shows that water quality of the River upstream is Q4-Good status. Quality deteriorates as the River flows through the Town where the status is Q3-4 Moderate-Good¹⁶.

3.5.4.3 Risk Assessment

Figure 3.16 shows the current risk assessment for the Carrowbeg River and Carrownalurgan River. In terms of achieving the WFD's objectives by 2015 both rivers are currently rated as being *(1a) at significant risk* of failing to achieve the WFD's objectives by 2015. This rating is allocated to these rivers and their catchments as a result of the EPA's modelling of diffuse sources of pollution within the catchments.

It is noted that a number of areas appear to be without ratings on Figure 3.18. These areas are part of other river catchments and are drained by transitional surface water bodies (see Section 3.5.5).

¹⁶ The Biotic Index Values, or Q values, are assigned to rivers in accordance with biological monitoring of surface waters - low Q ratings, as low as Q1, are indicative of low biodiversity and polluted waters, and high Q ratings, as high as Q5, are indicative of high biodiversity and unpolluted waters. Good status as defined by the Water Framework Directive equates to approximately Q4 in the national scheme of biological classification of rivers as set out by the EPA.

3.5.5 Transitional Waters

3.5.5.1 Introduction

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.

The transitional waters of Westport Bay and the Carrowbeg and Carrownalurgan estuaries support a variety of birdlife which sustain a flow of nutrients into these waters.

3.5.5.2 EPA Monitoring

The Assessment of Trophic Status of Estuaries and Bays in Ireland (ATSEBI) System is used by the EPA in order to classify the quality status of transitional waters. Categories of criteria for nutrient enrichment, accelerated growth, and undesirable disturbance are used by the ATSEBI in order to classify the estuarine and coastal waters. Monitoring of the transitional waters in Westport Bay has not yet taken place.

3.5.5.3 Risk Assessment

Figure 3.19 shows the current risk assessment for the transitional waters of the Westport and Environs area.

In terms of achieving the WFD's objectives by 2015 the transitional waters in Westport Bay are currently rated as being *(1b) probably at significant risk* of failing to achieve the WFD's objectives by 2015.

Morphological pressures due to intensive land use are the reason behind the ratings for Westport Bay. Point source pollution such as waste water treatment plants, water treatment plants and other pressures and Section 4 (Local Authority licensed discharges) also contribute towards its rating.

3.5.6 Coastal Waters

3.5.6.1 Introduction

As defined by the WFD, coastal water is: surface water on the landward side of a line, every point of which is at a distance of one nautical mile on the seaward side from the nearest point of the baseline from which the breadth of territorial waters is measured, extending where appropriate up to the outer limit of transitional waters.

Coastal waters are important for tourism, for use as bathing locations and for supporting marine wildlife.

3.5.6.2 WFD Risk Assessment of Coastal Waters

Figure 3.20 shows the WFD risk assessment for the coastal waters located off Westport. The coastal waters of Inner Clew Bay are rated as being *(2a) probably not at significant risk*. Reasons for this have been identified as point source pressures such as Waste Water Treatment Plants.

3.5.7 Groundwater

3.5.7.1 Introduction

Groundwater is stored in the void spaces in underground layers of rock, or aquifers. These aquifers are permeable, allowing both the infiltration of water from the soils above them and the yielding of water to surface and coastal waters. Groundwater is the part of the subsurface water that is in the saturated zone - the zone below the water table, the uppermost level of saturation in an aquifer at which the pressure is atmospheric, in which all pores and fissures are full of water.

3.5.7.2 Groundwater Vulnerability

The Geological Survey of Ireland (GSI) rates aquifers according to their vulnerability to pollution. Figure 3.21 maps this rating for the Plan area. Aquifer vulnerability refers to the ease with which pollutants of various kinds can enter underground water.

The majority of the ground water beneath the Plan area is "unclassified". Only an interim study of this area took place so an overall rating of high to low vulnerability is given. Extreme aquifer vulnerability and high aquifer vulnerability can be found in areas to the south of the Plan area are the two ratings of aquifers which are most sensitive to an imposed contaminant load.

3.5.7.3 Groundwater Productivity

The Geological Survey of Ireland (GSI) rates aquifers based on the hydrogeological characteristics and on the value of the groundwater resource. Ireland's entire land surface is divided into nine aquifer ratings. The Plan area is divided into three different ratings

as seen on Figure 3.22. The northern half of the Plan area is underlain by a regionally important karst aquifer while the southern half of the Plan area is underlain by a poor aquifer which is generally unproductive except for in local zones.

3.5.7.4 WFD Risk Assessment of Groundwaters

Figure 3.23 maps the current risk assessment for groundwater in the Westport and Environs area. The groundwater bodies underlying the south, south west and east of Westport and its Environs are currently rated as being *(2a) probably not at significant risk* of failing to achieve the WFD's objectives by 2015. Reasons for this have been identified as point sources including Urban Wastewater Discharges. Groundwater bodies underlying the north and west of the Plan Area are rated as *(2b) not at significant risk*.

Urban groundwater pollution sources and pathways are complex, and sources of pollution are difficult to control. Because of the complexities involved, urban groundwater pollution is considered to be a significant water management issue on a national scale as: Irish towns are growing rapidly; and, the financial costs of returning affected groundwater bodies to WFD status objectives will likely be significant, requiring extensive monitoring and management measures.

The EPA is currently undertaking an urban pressure assessment on groundwater. When completed, this assessment will be used by the EPA to define a national network of monitoring wells in urban areas that will provide additional information on groundwater within urban areas.

3.5.8 Existing Problems

The above descriptions identify a number of sensitivities with regard to the status of water bodies within the Westport Town and Environs Plan Area. By virtue of how they are used by people, Westport Bay, parts of Clew Bay and the groundwater underlying the Plan area are all listed on the Registers of Protected Areas under the Water Framework Directive.

The Carrowbeg River and the Carrownalurgan River are both at significant risk of failing to achieve the WFD's objectives of good status by 2015. Transitional waters are probably at significant risk of failing to meet the objective pending further investigation.

3.5.9 Evolution of Water in the absence of a Development Plan

Based on the current risk assessment, the Carrowbeg River and Carrownalurgan River are likely to fail to meet their commitments under the WFD. Measures from the soon to be published River Basin Management Plan would be required to be implemented in order to help avoid this failing.

If new development was not accompanied by appropriate waste water infrastructure/capacity then it is likely that:

- Rivers and their catchments and transitional waters would fail to meet WFD commitments; and,
- Significant adverse impacts upon the biodiversity and flora and fauna of Westport and Environs area would be likely to arise.

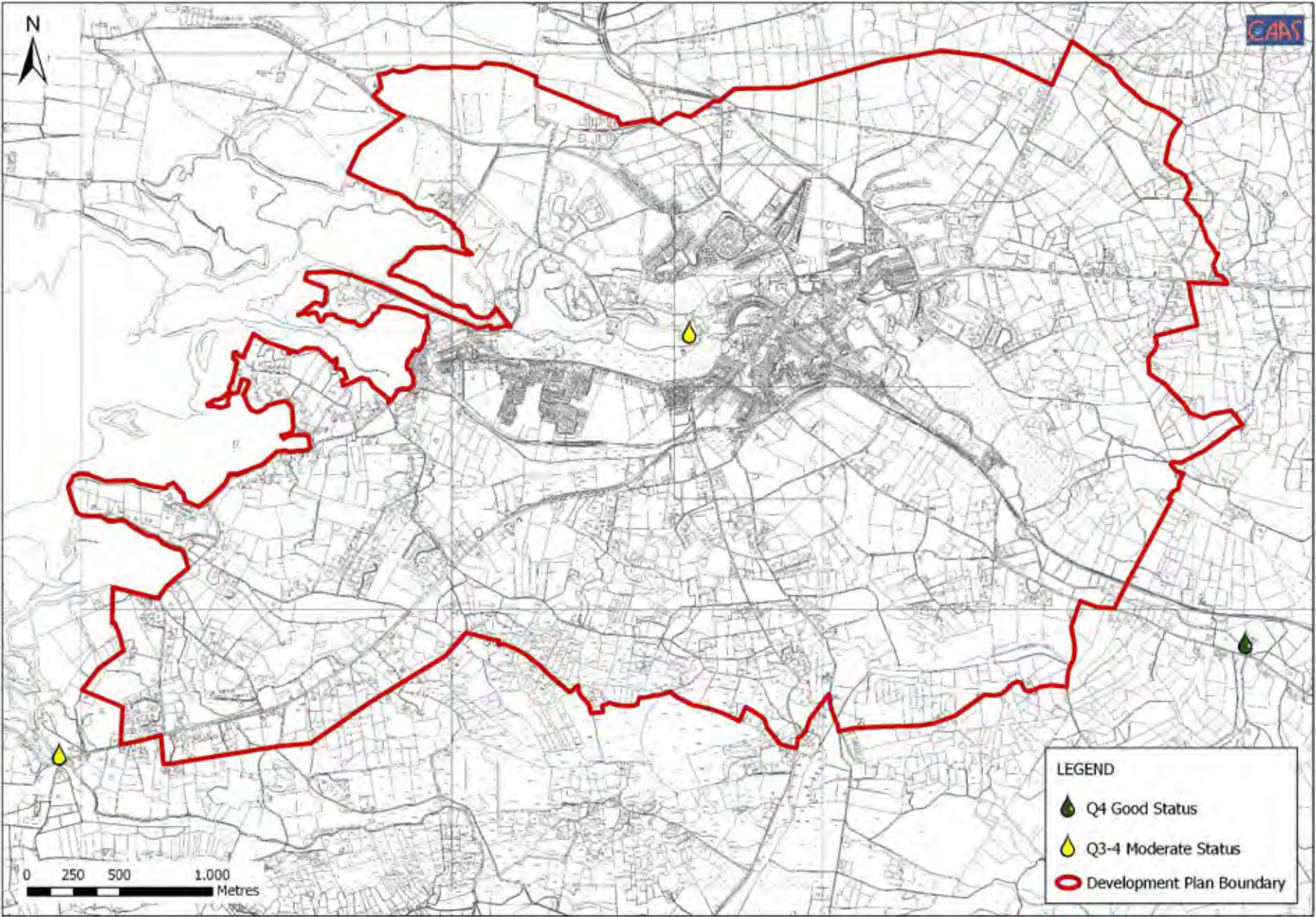


Figure 3.16 Q Values (Biotic Index Rating) for Points on River Bodies

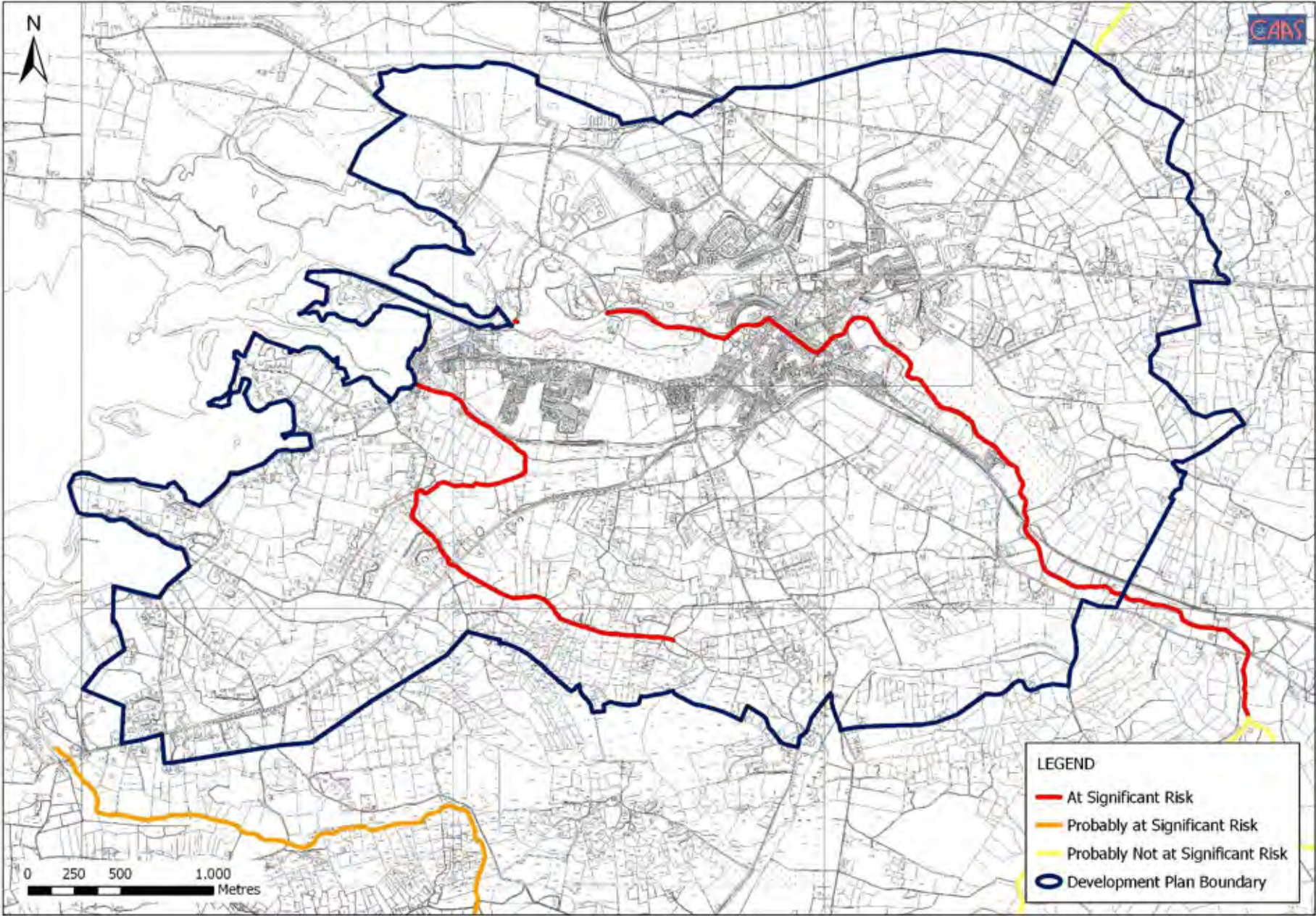


Figure 3.17 Risk Assessment of Rivers

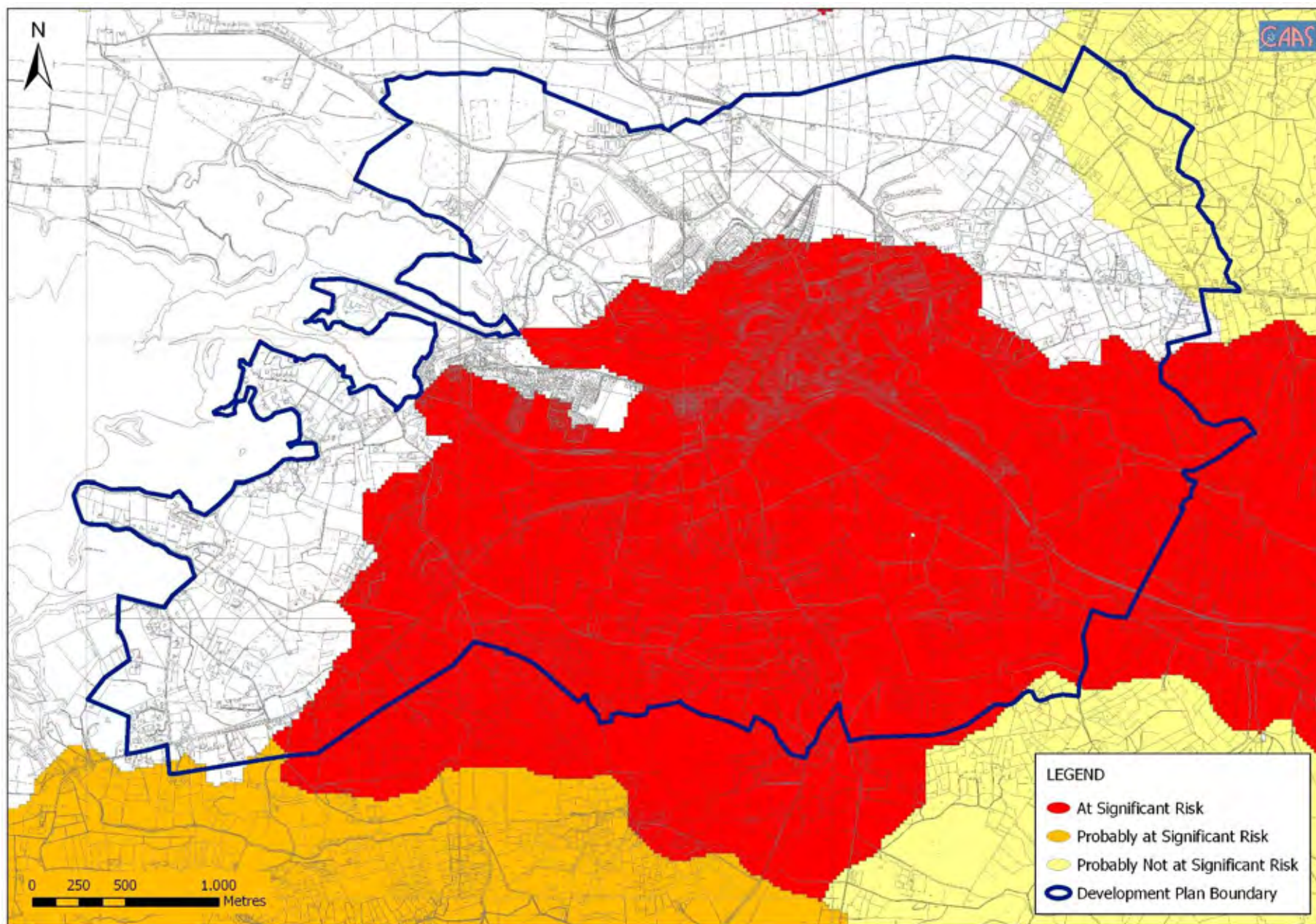


Figure 3.18 Risk Assessment of Surface Water Catchments

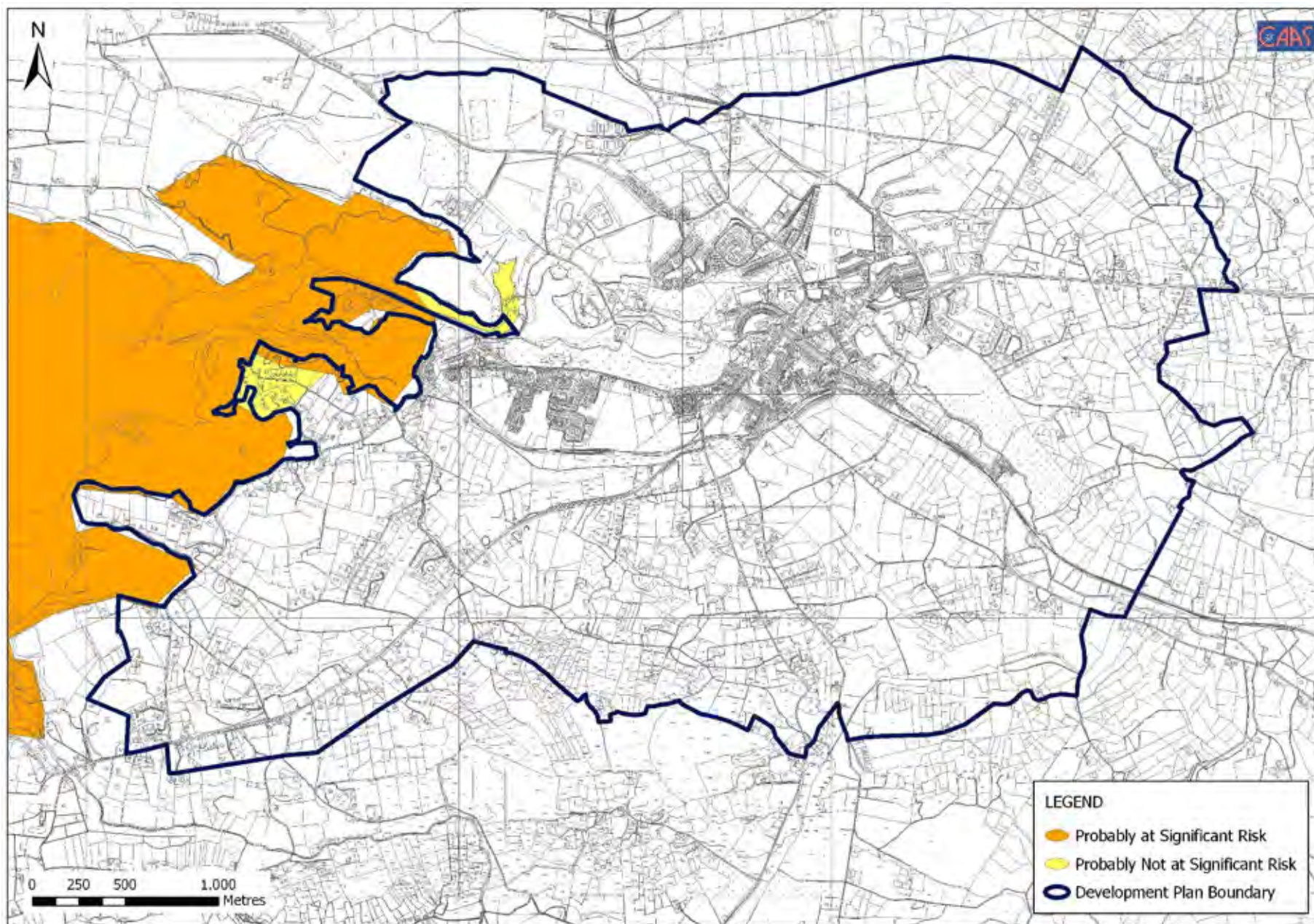


Figure 3.19 Risk Assessment of Transitional Waters

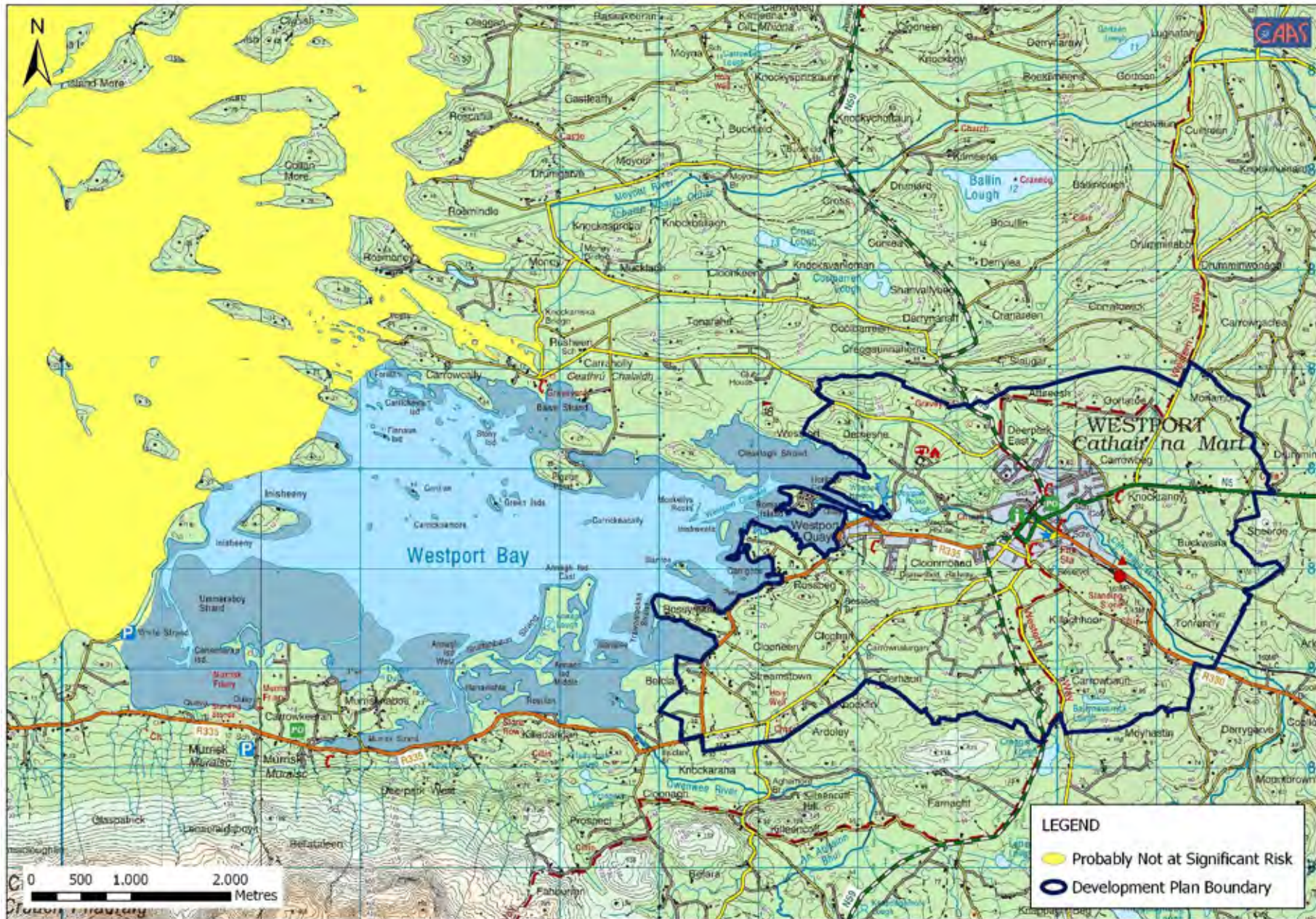


Figure 3.20 Risk Assessment of Coastal Waters

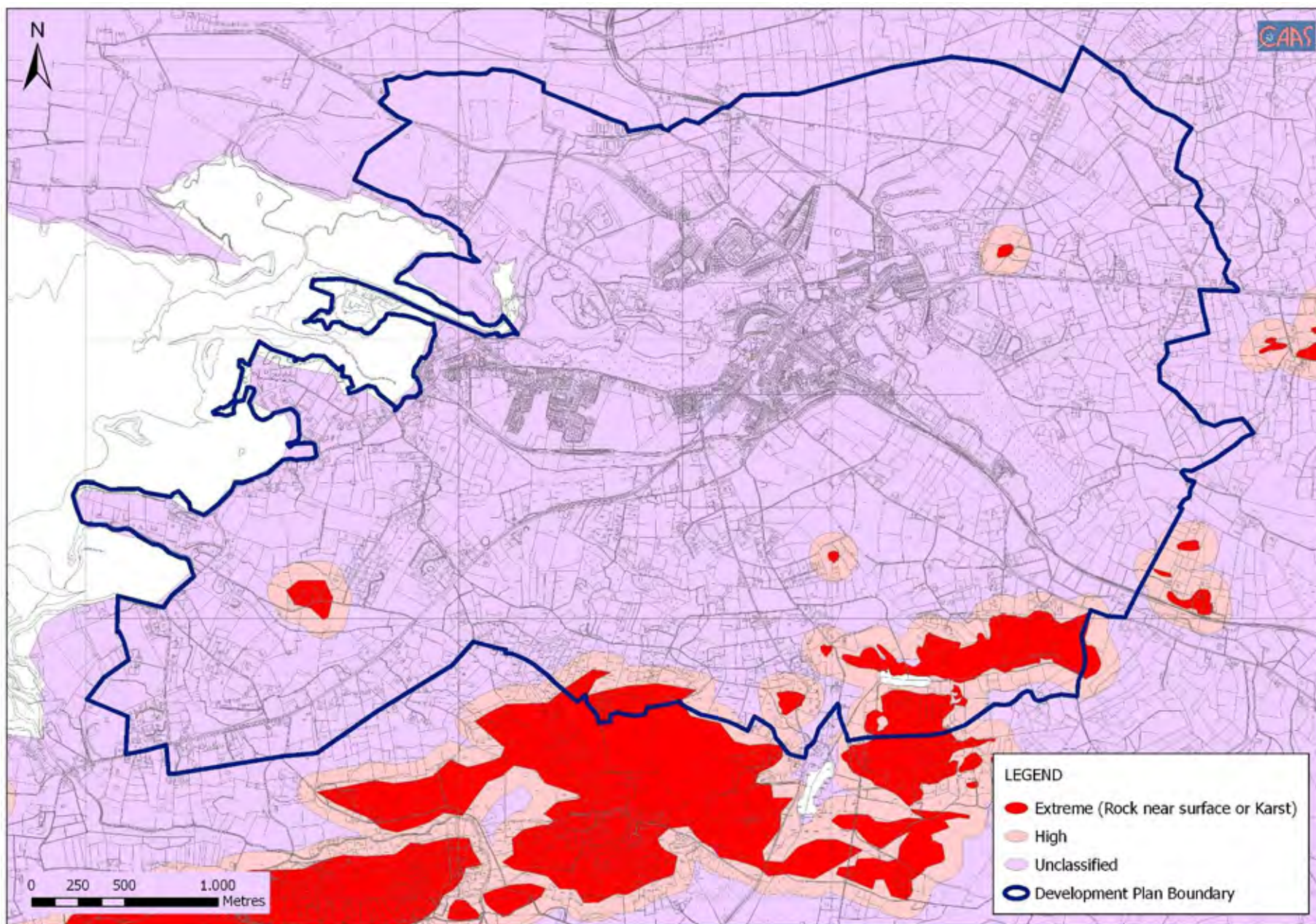


Figure 3.21 GSI Groundwater Vulnerability

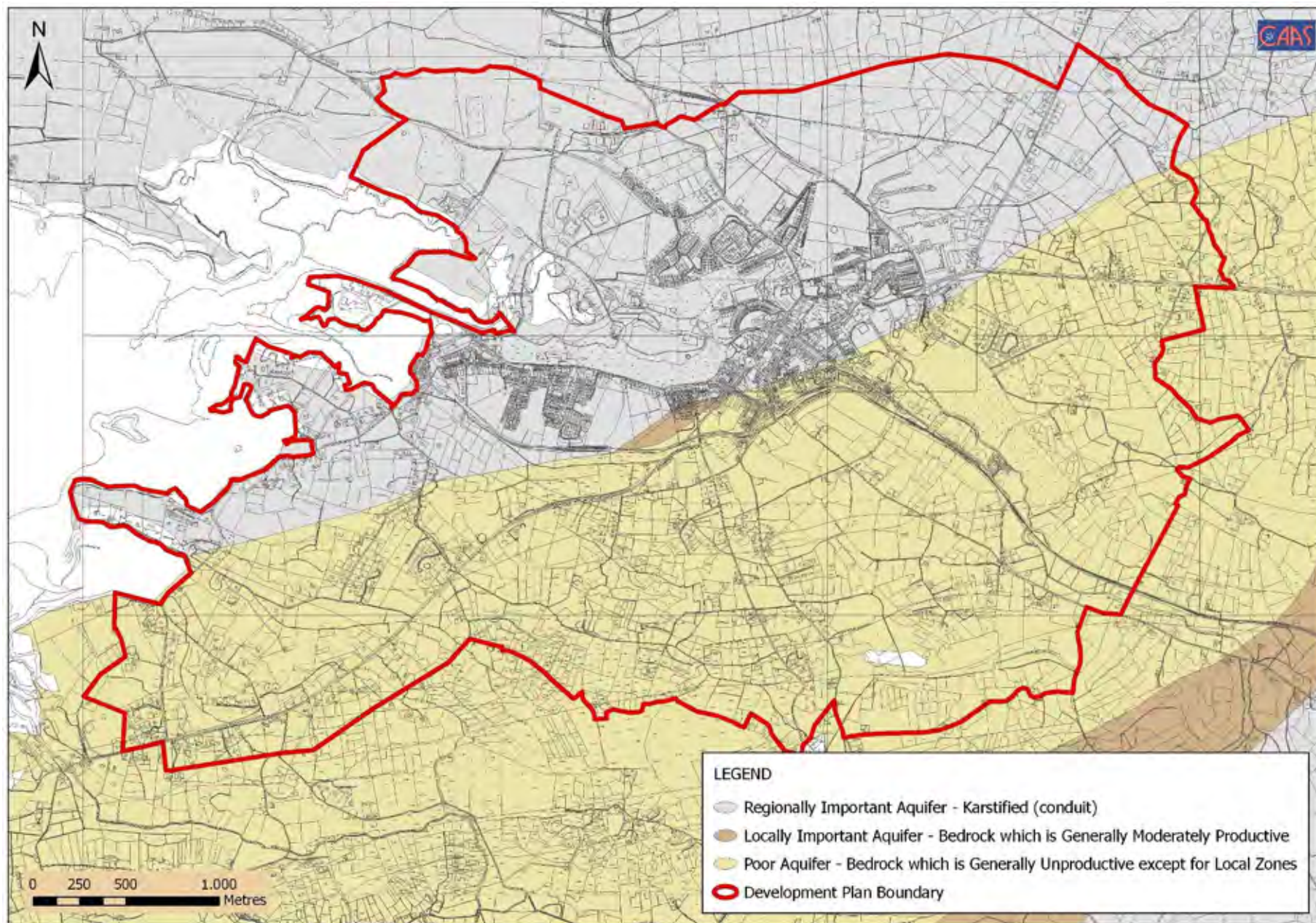


Figure 3.22 GSI Groundwater Productivity

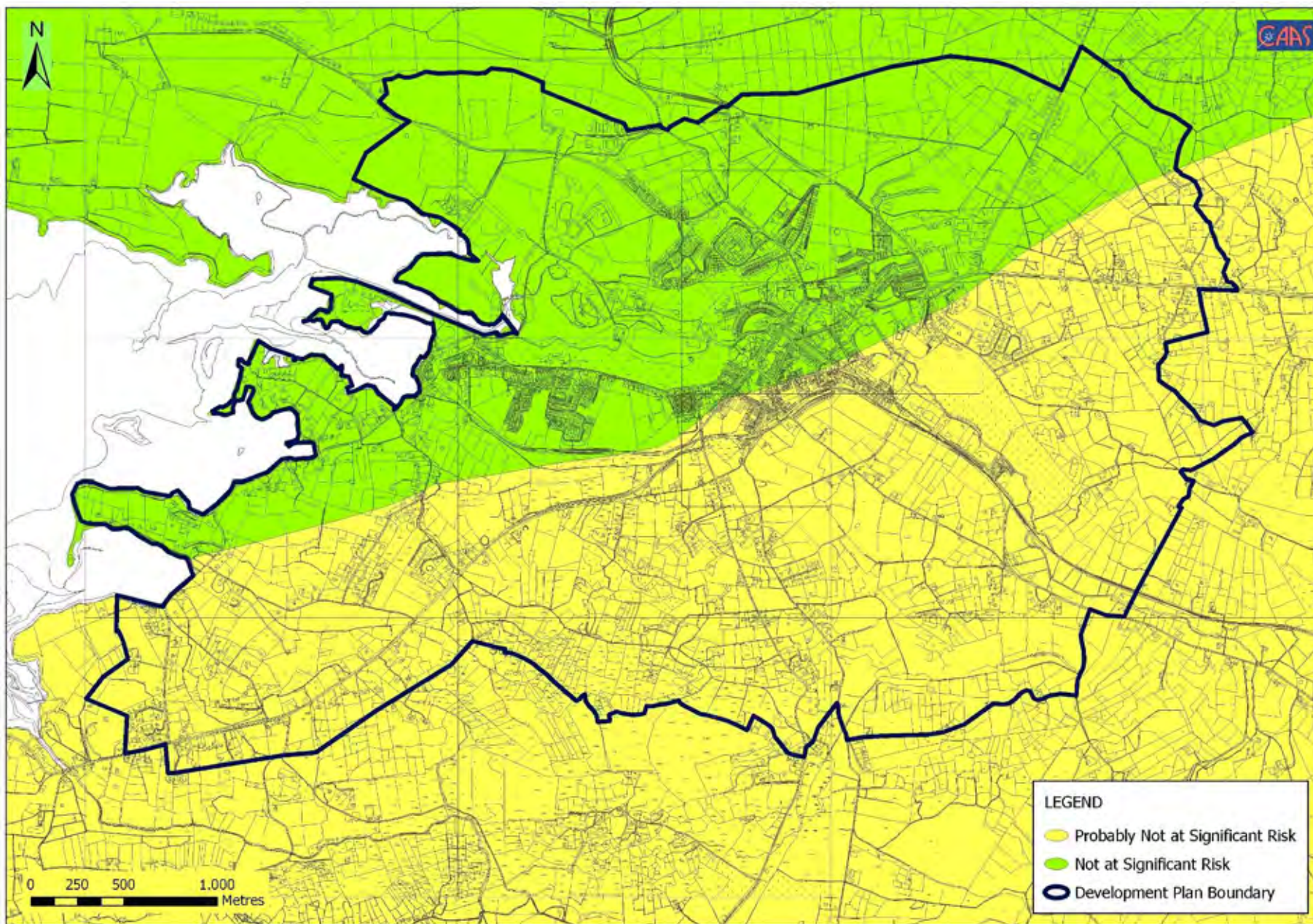


Figure 3.23 Risk Assessment of Groundwater

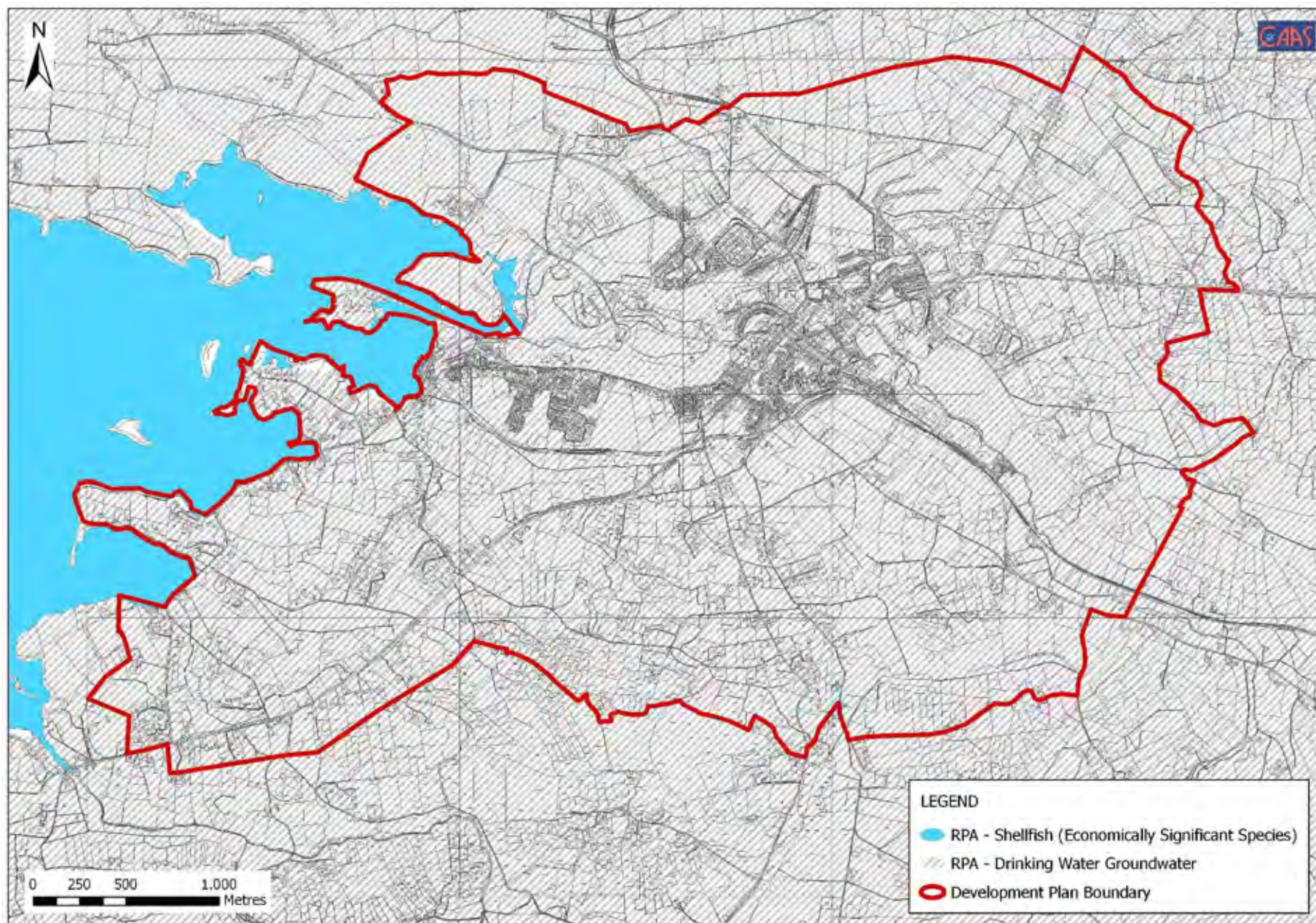


Figure 3.24 WFD Register of Protected Areas

3.6 Air and Climatic Factors

3.6.1 Ambient Air Quality

3.6.1.1 Introduction and Legislation

In order to protect human health, vegetation and ecosystems, EU Directives set down air quality standards in Ireland and the other member states for a wide variety of pollutants as well as detailing how ambient air quality should be monitored, assessed and managed. These pollutants are generated through fuel combustion, in space heating, traffic, electricity generation and industry and, in sufficient amounts, could affect the well being of the inhabitants in Westport.

The principles to this European approach are set out under the Air Quality Framework Directive 1996 as transposed into Irish law under the Environmental Protection Agency Act 1992 (Ambient Air Quality Assessment and Management) Regulations 1999 (SI No. 33 of 1999).

Four daughter Directives lay down limits or thresholds for specific pollutants. The first two of these directives cover: sulphur dioxide, nitrogen dioxide and oxides of nitrogen, particulate matter and lead; and carbon monoxide and benzene. Two more daughter directives deal with: ozone; and polyaromatic hydrocarbons, arsenic, nickel, cadmium and mercury in ambient air.

3.6.1.2 Air Quality

In order to comply with these directives, the EPA measures the levels of a number of atmospheric pollutants. For the purposes of monitoring in Ireland, four zones are defined in the Air Quality Standards Regulations 2002 (SI No. 271 of 2002). The main areas defined in each zone are:

- Zone A: Dublin Conurbation.
- Zone B: Cork Conurbation.
- Zone C: Other cities and large towns comprising Galway, Limerick, Waterford, Clonmel, Kilkenny, Sligo, Drogheda, Wexford, Athlone, Ennis, Bray, Naas, Carlow, Tralee and Dundalk.

- Zone D: Rural Ireland, i.e. the remainder of the State - small towns and rural areas of the country - excluding Zones A, B and C, Westport falls under this category.

Current air quality in Zone D is "good". The index is calculated based on the latest available measurements of PM₁₀, sulphur dioxide, nitrogen dioxide and ozone in Zone D.

3.6.1.3 Particulate matter (PM₁₀ and PM_{2.5})

Particulate matter (PM₁₀ and PM_{2.5}), or dust, arises from vehicle exhaust emissions, soil and road surfaces, construction works and industrial emissions. Small particles can penetrate the lungs and cause damage. These are known as PM₁₀ (diameter less than 10µm) and PM_{2.5} (diameter less than 2.5µm). There are high levels of PM₁₀ in many cities and towns.

3.6.1.4 Air Quality Monitoring

The nearest monitoring station to Westport is in Castlebar. PM₁₀ is measured at this site by the EPA. The PM₁₀ limit of 50 µg m⁻³ is deemed breached if more than 35 exceedences in a year have occurred. In Castlebar, there have been 9 exceedences in the first six months of 2008, up from 8 for the year 2007. However, if this trend continued through the rest of the year then the requirements of the Regulations with regard to PM₁₀ would still be met.

3.6.2 Potential Point Sources of Emissions

3.6.2.1 IPPC Licensed Facilities

The EPA has been licensing certain large-scale industrial and agriculture activities since 1994. Originally the licensing system was known as Integrated Pollution Control (IPC) licensing, governed by the Environmental Protection Agency Act, 1992. The Act was amended in 2003 by the Protection of the Environment Act, 2003 which gave effect to the Integrated Pollution Prevention Control (IPPC) Directive. Detailed procedures concerning the IPPC licensing process are set out in the EPA Acts 1992 to 2007 and the associated licensing regulations.

IPPC licences 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. All related operations that the license holder carries in connection with the activity are controlled by this license. Before a license is granted, the EPA must be satisfied that emissions from the activity do not cause a significant adverse environmental impact.

There is one IPPC licensed facility within the Westport and Environs area, namely Allergan Pharmaceuticals (Ireland) Ltd. The location of this facility is mapped on Figure 3.25. The licence granted to Allergan in 1997 allowed for the manufacture or use of coating materials in processes with a capacity to make or use at least 10 tonnes per year of organic solvents, and powder coating manufacture with a capacity to produce at least 50 tonnes per year.

Allergan applied for a license review on 4th June 2008 in accordance with Section 90 (1) (b) of the Environmental Protection Agency Acts 1992 to 2007 which requires a review of the license when an activity to which a license is granted has ceased for a period of not less than three years. The description of the principal class of activity has now changed to permit the use of a chemical or biological process for the production of basic pharmaceutical products.

The EPA proposes to grant this licence subject to conditions for class 5.16 - the use of a chemical or biological process for the production of basic pharmaceutical products and class 11.1 - the recovery or disposal of waste in a facility.

There are no active waste licenses in the Plan area.

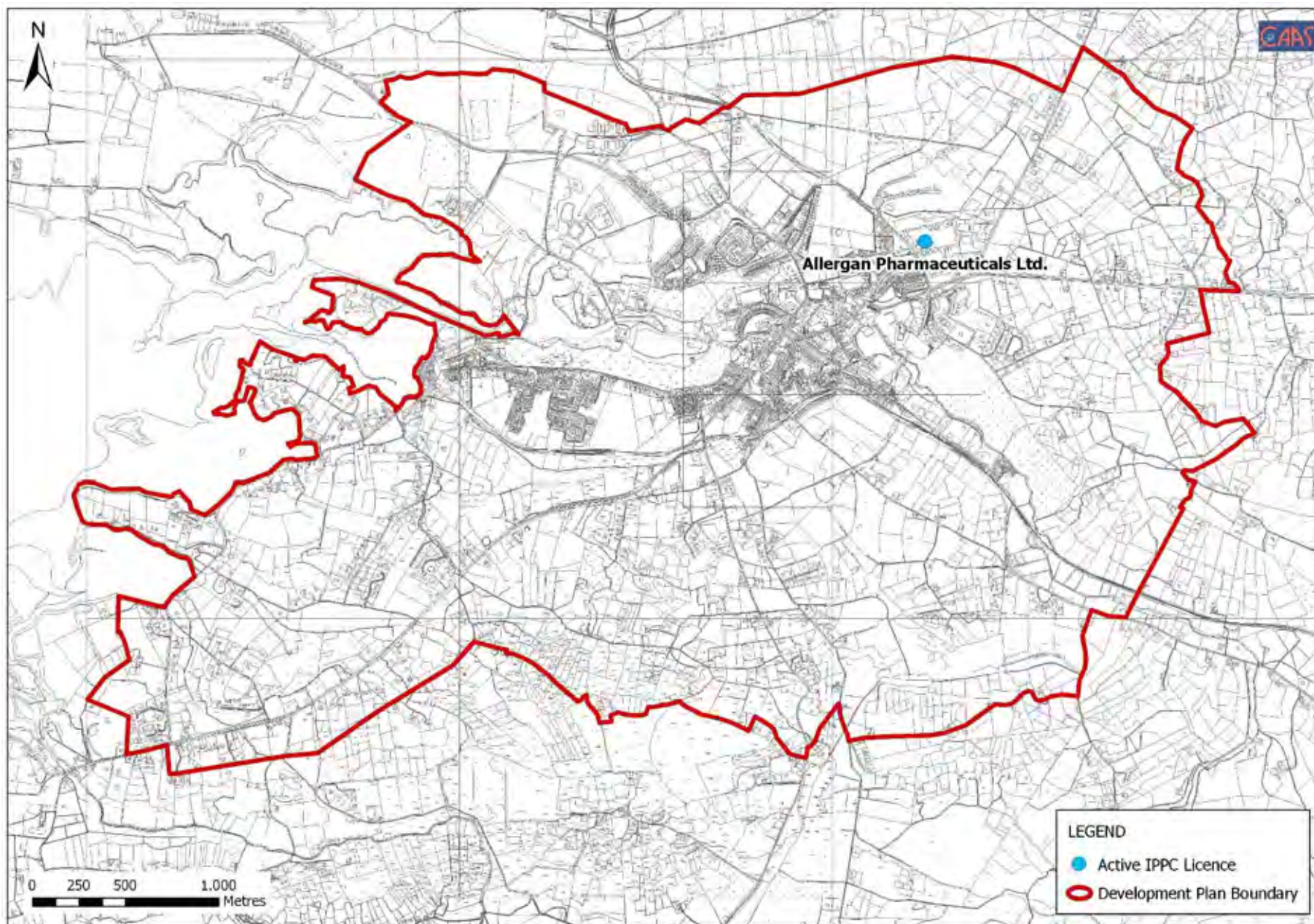


Figure 3.25 Active IPPC license

3.6.3 Noise

The over-riding noise source in Westport and its Environs is from traffic. Streets in low lying areas that have high traffic counts as well as enclosing taller buildings are likely to have harsh sensory environments with regard to noise levels with regard to this source.

In addition, there are localised noise sources in Westport Town which include air conditioning equipment, train movements and night clubs.

3.6.4 Climatic Factors

3.6.4.1 Greenhouse Gases

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

Based on the latest inventory figures¹⁷, the EPA estimates that Ireland's emissions in 2006 were 25.5 per cent higher than the baseline estimate that underlies Ireland's allowable emissions for the period 2008-2012, as agreed in the peer review of Ireland's 2006 submission to the United Nations Framework Convention on Climate Change.

With regard to overall emissions, *Agriculture* is the single largest contributor, at 27.7% of the total, followed by *Energy* (power generation & oil refining) at 22.3% and *Transport* at 19.7%. The remaining 30% is made up by the Residential sector at 10.4%, *Industry and Commercial* at 17.2%, and *Waste* at 2.6%.

Transport continues to be the dominant growth sector with emissions at 682,000 tonnes higher in 2006 than in 2005. This represents a 5.2% increase on 2005 levels and 165% increase on the 1990 transport emissions. Road transport accounts for 97% of the transport sector emissions. The increase in the GHG emissions from the transport sector reflects sustained increases in fuel consumption with petrol usage

¹⁷ EPA (2008) *Provisional figures for Ireland's 2006 Greenhouse Gas Emissions for the period 1990-2006* Wexford: EPA

up 3.4% and diesel consumption up 7.9% from the previous year.

3.6.4.2 Climate Change

Climate change refers to any change in climate over time, whether due to natural variability or as a result of human activity.

The release of greenhouse gases into the atmosphere as a result of human activities adds to natural climate variability by increasing the naturally occurring greenhouse effect. This greenhouse effect occurs in the atmosphere and is caused by greenhouse gases which exist naturally in the atmosphere. The greenhouse gases retain the radiation which is released from the earth as a result of heating by the sun. This retention maintains a global temperature which is suitable for ecosystems and life.

Climate change is not limited to changes in temperatures or weather - it can also mean changes in the occurrence of extreme and unstable weather conditions, storms and floods, droughts and coastal erosion.

3.6.4.3 Climate Model Predictions and Sea Level Rise Scenarios

The EPA's 'Climate Change: Regional Climate Model Predictions for Ireland' (2005)¹⁸ report provides an analysis of future Irish climate conditions for the period 2021-2060 based on the outputs from a new regional climate modelling facility located in Met Éireann.

Projected temperature changes from the model output show a general warming in the future period with mean monthly temperatures increasing typically between 1.25 and 1.5°C. The largest increases are seen in the southeast and east, with the greatest warming occurring in July.

For precipitation, the most significant changes occur in the months of June and December; June values show a decrease of about 10% compared with the current climate, noticeably in the southern half of the country; December

¹⁸ Community Climate Change Consortium for Ireland (2005) *Environmental RTDI Programme 2000-2006 Climate Change: Regional Climate Model Predictions for Ireland (2001-CD-C4-M2) Final Report* Wexford: Environmental Protection Agency

values show increases ranging between 10% in the south-east and 25% in the north-west.

In the future scenario, the frequency of intense cyclones or storms over the North Atlantic area in the vicinity of Ireland is increased by about 15% compared with the current climate. This is related to the projected general rise in sea surface temperatures.

Sea level changes result from changes that occur in external forcing mechanisms, such as changes in the redistribution of heat between the equator and the poles and other atmospheric changes. The EPA's 'Climate Change: Scenarios and Impacts for Ireland' (2003)¹⁹ report chose three sea level rise scenarios in order to assess areas around Ireland at risk from an increase in sea level: 0.09 m, 0.48 m and 0.88 m in conjunction with a digital elevation model to project probabilities of inundation.

The maps presented in the publication were not of sufficient quality to use in this report and the GIS layers used to create the maps were not available from either the EPA or the authors of the report. It is noted however, the maps appear to identify that rising sea levels could place certain areas of land at both Clew and Westport Bays at risk.

3.6.4.4 Potential Effects of Changed Climate and Rising Sea Levels

The EPA's 'Climate Change: Scenarios and Impacts for Ireland' (2003) report identifies where vulnerability to climate change exists in Ireland and what adjustments are likely in the operation of environmental systems in response to such changes. The following potential effects are cited from this report.

- **Flooding and Erosion**

At the regional scale, the major effects of a sea level rise are loss of land as a consequence of increased erosion (due to changes in coastal currents and sedimentation rates) and inundation and increased risk of flooding (both at the coast and inland along major river

networks during storm surge events). Flooding risk would also be enhanced if a storm surge is coupled with intense or long duration precipitation events.

Seasonal flooding can also be caused by turloughs, seasonal lakes that are a feature of the limestone lowlands of the area.

Coastal floodplains are especially at risk on occasions when a high tide and storm surge couple with a period of intense rainfall lead to a breach in the carrying capacity of the drainage network, a situation in Ireland which has become evident over the last decade.

Sea level rise presents itself as a serious problem where there is infrastructure at risk of inundation.

As increased temperatures will lead to greater amounts of water vapour in the atmosphere and an accelerated global water cycle, it is reasonable to expect that river catchment areas will be exposed to a greater risk of flooding. The increase in winter precipitation will be likely to produce a significant increase in the more intense discharge episodes, raising the risk of future flooding.

The EPA's report also identifies that although it is not possible to comment on changes in flood magnitude and frequency, the increase in winter runoff indicated for many parts of the west, especially under the scenario for the period 2061–2090, is likely to have significant implications. River flooding tends to be more common during the wetter winter months when soils are near saturation and can be exacerbated in coastal areas when interactions occur between high tides and high flows.

The effect of a sea level rise on estuaries will tend to enlarge their vertical and horizontal extent, resulting in the penetration of tides further upstream. The outflow from rivers would be impeded as a consequence, which, in a high intensity rainfall event where runoff is high, would increase the risk of flooding.

Sea level rise in Westport and Clew Bays could result in changes to the ecologically designated sites located there as well as in a further inundation of drumlins and a changing of the landscape.

¹⁹ Department of Geography, National University of Ireland, Maynooth (2003) *Environmental RTDI Programme 2000–2006 Climate Change: Scenarios and Impacts for Ireland (2000-LS-5.2.1-M1) Final Report* Wexford: Environmental Protection Agency

Further information on flooding is contained in Section 3.6.4.5.

- **Aquifers**

The inland penetration of saltwater could result in the contamination of low-lying coastal aquifers and other freshwater sources.

- **Biodiversity**

Salt marshes and sand dunes are ecological strongholds providing a variety of habitats for a range of different species. Many of the marsh systems in Ireland provide over-wintering feeding grounds for many species of migratory birds. The loss of these habitats could present major problems for species numbers and diversity, aspects dealt with in the previous chapter.

Rising sea levels could lead to the covering of many of Clew Bay's habitats which are important to bird populations including the Great Northern Diver, the Bar-tailed Godwit, the Red-breasted Merganser and Barnacle Geese.

- **Commercial fishing**

Changes in the precipitation level and seasonality of precipitation may have an impact on the salinity gradients within estuarine systems and enclosed waterbodies. Any reduction in primary production could have an impact on the commercial capture fisheries. Estuarine systems, including that of the Carrowbeg River, are important nursery and breeding areas for many commercial fish species. Increased precipitation may disrupt the salinity gradients within such systems and, coupled with likely increased sedimentation, disrupt spawning and nursery grounds in such areas.

Small changes in the sedimentation and salinity of the shellfish waters to the west of Westport could reduce the productivity of these areas with large changes potentially resulting in the end of the shellfish industry at these locations.

3.6.4.5 Flooding

In September 2008 the DEHLG published for public consultation new draft Planning Guidelines on the Planning System and Flood Risk Management which are aimed at ensuring a more consistent, rigorous and systematic approach to fully incorporate flood risk

assessment and management into the planning system. A final version of these Guidelines was issued in November 2009.

The draft Guidelines were considered when drawing up the mitigation measures relating to flooding which have been integrated into the Plan.

The Carrowbeg River has burst its banks over the years along the North Mall in the centre of Westport Town though flooding has not occurred in the Mall area of Westport since the 1980's. Remedial work was carried out during the 1980's to alleviate the problem. This work included the fitting of non return valves on the stormwater system to stop the river backing up the pipes in the area. When the main drainage works were being carried out in Westport in 2001, a new surface water pipe was laid on the Mall to reduce the risk of flooding. This pipe starts at the Fairgreen and enters the river below St. Mary's Crescent with the Castlebar Street area storm system also entering this pipe.

In addition, local knowledge indicates that an area along the Ballinrobe Road, north east and east of the junction of Sandyhill, is subject to flooding. The Council have refused permissions based on this knowledge in the past and have zoned the area as Agriculture /High Amenity as a result.

No information in relation to flooding was available for the Plan area other than what is detailed above and that from floodmap.ie, (the Office of Public Works National Flood Hazard Mapping website) which indicates that no flood events occur in the area.

3.6.5 Existing Problems

Traffic hotspots within Westport are likely to have elevated levels of air pollution and noise due to traffic congestion. Traffic hotspots are located along the main road routes - especially at intersections - and provide for a harsh sensory environment which may impact upon human health. Traffic hotspots in low lying areas that have retaining high buildings are likely to provide for harsher sensory environments with regard to air pollution and noise levels. The proposed ring road at Westport is likely to alleviate much of this congestion in the town centre.

Localised air pollution incidences with regard to PM10 and PM2.5 and noise pollution are both likely to occur when demolition/construction takes place - especially in relation to PM10 if suppression techniques are not introduced - and when traffic is queuing for long periods of time.

Ireland's current emissions are exceeding targets agreed in the peer review of Ireland's 2006 submission to the United Nations Framework Convention on Climate Change. It is unlikely that Ireland will meet these targets and it is likely therefore that financial penalties will be incurred. Transport related emissions continue to be the dominant growth sector.

Changes in sea level and/or changes in the occurrence of severe rainfall events as a result of climate change would be likely to increase the occurrence and magnitude of flooding events and inundation - this could result in damage and loss to houses and infrastructure. Changes in the salinity and sedimentation of waters in Clew Bay and Westport Bay could impact upon the shellfishery industries located in the Bay.

Sea level rise in Westport and Clew Bay could result in changes to the ecologically designated sites located there as well as in a further inundation of drumlins and a changing of the landscape.

3.6.6 Evolution of Air and Climatic Factors in the absence of a Development Plan

Increases in the number of cars as well as the increase in the volume and incidences of traffic congestion may lead to increases in air and noise pollution in the future.

The Development Plan provides an opportunity to consolidate the Town by locating new residential development closer to the Town Centre and providing pedestrian routes within and between residential areas in the Town Centre is designed to reduce trip generation and promote the use of alternative modes of transport other than the car and would therefore be likely to generate less transport related greenhouse gas emissions than populations located further away from the Town Centre. In the absence of a Development Plan this opportunity to prevent the generation of future

transport related greenhouse gas emissions would be missed.

In the absence of a Development Plan, it could be more difficult for the Councils to implement flood risk management measures in the Westport area.

3.7 Material Assets

3.7.1 Waste Water

3.7.1.1 Relevant Legislation

The Urban Waste Water Treatment Directive (91/271/EEC) (amended by Directive 98/15/EEC) aims to protect the environment from the adverse effects of the wastewater discharges by ensuring that wastewater is appropriately treated before it is discharged to the environment. Such treatment is essential in order to meet the requirements of the Water Framework Directive (see Section 3.5).

3.7.1.2 Capacity and Demand

A new Waste Water Treatment Plant was opened at the Golf Course Road in Westport in May 2004. Waste water from the Plan area is treated at this facility. Waste water undergoes secondary treatment at the plant. Current demand at the plant is 15,000 Population Equivalent (P.E.)²⁰. There is scope to extend the capacity to 24,000P.E. which is thought to be adequate capacity well into the future. The outfall point for the Plant is at Cleverleagh Strand.

The sewage network and waste water treatment plant for the Plan area is mapped on Figure 3.26.

3.7.2 Drinking Water

3.7.2.1 Water Supply

Drinking water for the Plan area is currently sourced from Moher Lake and is supplemented by a supply from the Lough Mask Scheme via Castlebar. The water supply to the Town and Environs will be augmented by direct connection to the Lough Mask Augmentation Scheme

²⁰ Population equivalent (in waste-water monitoring and treatment) refers to the amount of oxygen-demanding substances whose oxygen consumption during biodegradation equals the average oxygen demand of the waste water produced by one person.

currently being developed. Drinking water supply to the area is at capacity.

The contract for the extension of the Lough Mask Regional Water Supply Scheme from Shraah to Westport has been awarded but it may be next year before works commence. Plans for the extension of the Lough Mask Water Treatment Plant at Tourmakeady are underway. The Shraah to Westport scheme involves laying some 26 km of trunk main and a new reservoir. The expansion of the Tourmakeady Treatment Plant will increase drinking water production capacity from 27,300m³ to 37,000m³ per day. The projects combined, will ensure that there is sufficient treated water available to meet current and future demand throughout the area served by the Lough Mask Regional Water Supply Scheme, including, the growing needs of Westport. Water supply is at capacity but will be adequate when the Lough Mask scheme is available.

3.7.2.2 Water Quality

Drinking water must be clean and wholesome. That means it must meet the relevant water quality standards and must not contain any other substance or micro-organism in concentrations or numbers that constitute a potential danger to human health.

Compliance with the drinking water requirements is determined by comparing the results of analyses submitted by water suppliers to the standard for 48 parameters specified in the European Communities (Drinking Water) Regulations (No. 2), 2007. To ensure that these standards are met each water supply must be monitored on a regular basis.

Under Section 58 of the Environmental Protection Agency Act 1992 the EPA is required to collect and verify monitoring results for all water supplies in Ireland covered by the European Communities (Drinking Water) Regulations, 2000. The EPA publishes their results in annual reports.

The Westport Water Supply serves a population of 6,730. In their most recent report²¹ the EPA has identified that the Westport Water Supply contains excessive levels of aluminium in the treated water- these high levels were up to 8

times the standard set out in the European Communities (Drinking Water) Regulations (No. 2), 2007, with 8 of the 10 samples analysed exceeded. Mayo County Council must continue to review the operation of these plants to ensure that these plants are brought back into compliance with the Regulations. As a result of the aluminium exceedences, the Westport public water supply has been placed on the EPA's Remedial Action List as one of 339 public water supplies - representing 36% of public drinking water supplies - that require detailed profiling to ensure that the supply is providing clean and wholesome drinking water.

It is noted that compliance with the aluminium parametric value was problematic in the wider County Mayo with only a 73% compliance level achieved.

Compliance with the aluminium parametric value has been problematic in a number of supplies in Ireland in the past. Failure to meet the aluminium parametric value can be due to several reasons, including naturally elevated levels of aluminium in the raw water, operation of the treatment plant above design capacity, poor management of the treatment plant or inadequate management of the distribution network.

3.7.3 Waste Management

At present the majority of the landfill waste from the Plan area is sent to Derrinnumera. However waste in this area is collected by private waste operators who make commercial decisions on which landfill to use. All waste collected in the Plan area by the Council from street cleaning is sent to Derrinnumera.

The current remaining capacity at Derrinnumera is in the region of 45,000 tonnes, which at current waste rates will last until July 2010 approximately. There are currently no further expansion plans for this site.

Waste deposition began at Derrinnumera in 1974; however the site was only licensed by the EPA in 1999 under licence number W0021-01 to accept 40,000 tonnes per year. Wastes landfilled include: standard domestic, commercial and industrial non-hazardous waste. There are no hazardous wastes or sludges accepted at the facility.

²¹ EPA (2007) *The Provision and Quality of Drinking Water in Ireland: A Report for the Years 2006-2007* Wexford: EPA

3.7.4 Vehicular Circulation

Westport is served by the National Primary Route N5 (Castlebar Road), the national secondary route N59 (Newport and Leenane Road), Regional Roads R330 (Ballinrobe Road) and R335 (Louisburgh Road) and number of county roads which feed off the main road network.

Like many other urban centres, Westport is subject to traffic congestion especially during the peak tourism season (July and August). However it is envisaged that the proposed N5 & N59 by-pass route will assist in alleviating this problem. In the interim it is proposed to implement the recommendations set out in the Westport Transportation Study (February 2002) which will assist in improving vehicular and pedestrian movements in the Town.

Westport is served by the Dublin - Westport railway line and it is one of many lines which has experienced large investment within the last few years. The route currently provides five services per day each way. Westport is also included in a medium term programme to extend the car park serving the railway station.

3.7.5 Existing Problems

As noted in Section 3.7.2.2, problems exist relating to levels of aluminium in the drinking water supplied to the area.

As mentioned above, traffic congestion in the Town can be a problem.

3.7.6 Evolution of Material Assets in the absence of a Development Plan

In the absence of a Development Plan, there would be no framework to provide the infrastructure which is necessary across the Westport and Environs Area to serve existing and proposed development such as waste water treatment plants and networks, water supply infrastructure, transport infrastructure and powerlines etc.

Failure to provide sufficient infrastructure for development would be likely to result in significant adverse impacts. For example, failure to upgrade and provide new waste water infrastructure would be likely to adversely impact upon water quality and indirectly significantly adversely impact upon biodiversity and flora and fauna, drinking water supplies, economically valuable shellfisheries, and human health.

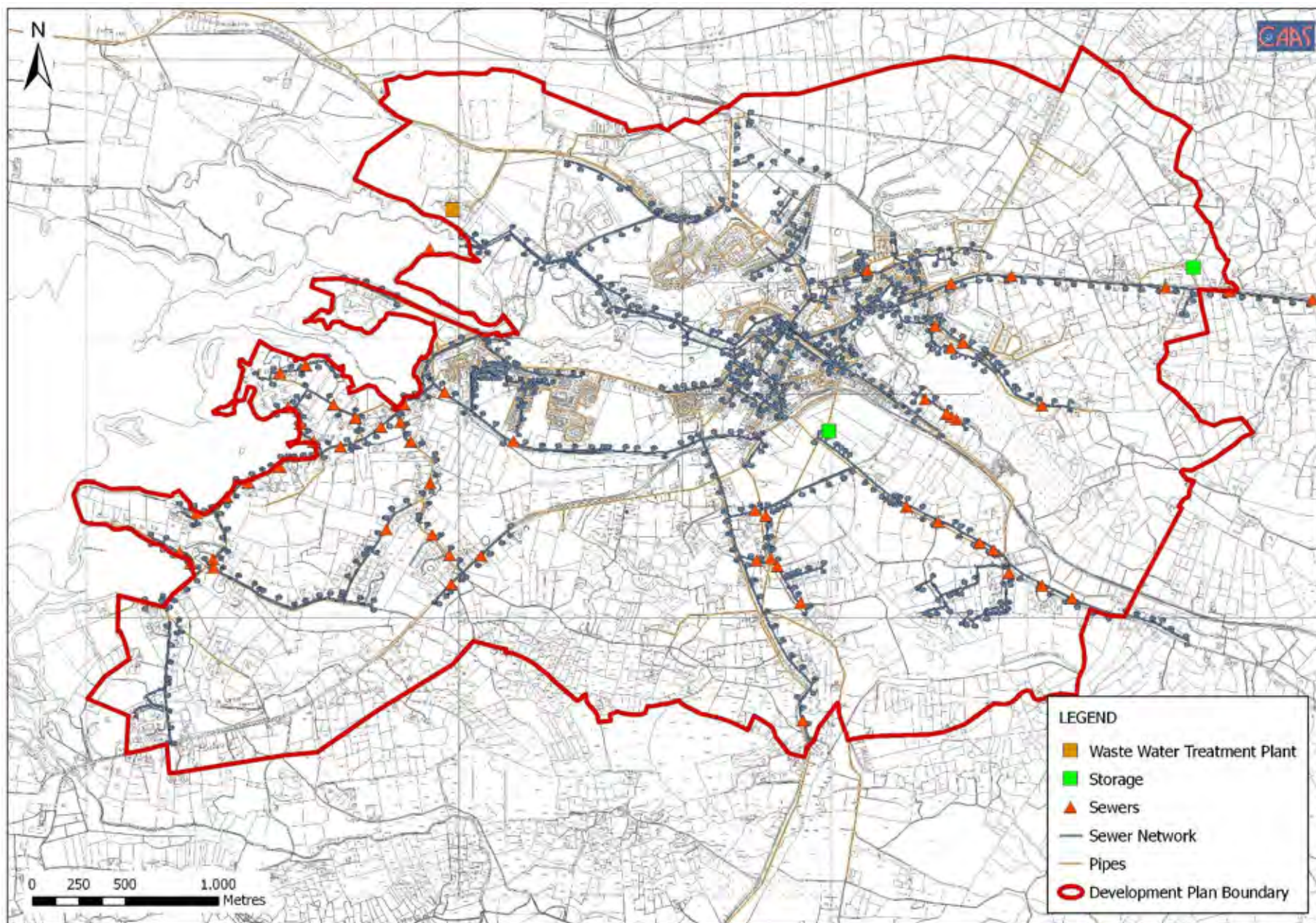


Figure 3.26 Sewage Network and WWTTP

3.8 Cultural Heritage

3.8.1 Introduction

Heritage, by definition, means inherited properties, inherited characteristics and anything transmitted by past ages and ancestors. It covers everything, from objects and buildings to the environment. Cultural heritage includes physical buildings, structures and objects complete or in part, which have been left on the landscape by previous and indeed current generations.

Westport, as one of the few planned towns in the Country, has a distinct and valuable urban design and visual quality and is generally regarded as one of the most important heritage towns in Ireland.

The heritage of Westport Town and Environs is a unique resource which is fundamental to the cultural identity of the area and the quality of life of its citizens - it is central to how we see ourselves and to our identity as individuals and communities. Historic buildings can define localities and communities within the area and can become a focus of community identity and pride. An historic church or park, for example, can help define a neighbourhood and create a sense of local cohesion.

3.8.2 Archaeological Heritage

3.8.2.1 Introduction

Archaeology is the study of past societies through the material remains left by those societies and the evidence of their environment. Archaeological heritage consists of such material remains (whether in the form of sites and monuments or artefacts in the sense of moveable objects) and environmental evidence. As archaeological heritage can be used to gain knowledge and understanding of the past it is of great cultural and scientific importance. Archaeological sites and monuments vary greatly in form and date; examples include earthworks of different types and periods, (e.g. early historic ringforts and prehistoric burial mounds), megalithic tombs from the Prehistoric period, medieval buildings, urban archaeological deposits and underwater features such as wrecks.

Archaeological sites may have no visible surface features; the surface features of an archaeological site may have decayed completely or been deliberately removed but archaeological deposits and features may survive beneath the surface.

Archaeology in its various forms ranging from fragmentary buried remains to the fabric and contents of modern domestic and industrial buildings is a vital component of the culture, conservation and redevelopment of Westport Town and Environs.

3.8.2.2 Record of Monuments and Places

The term 'monument' includes all man-made structures of whatever form or date except buildings habitually used for ecclesiastical purposes. All monuments in existence before 1700 A.D. are automatically considered to be historic monuments within the meaning of the Acts. Monuments of architectural and historical interest also come within the scope of the Acts. Monuments include: any artificial or partly artificial building, structure or erection or group of such buildings, structures or erections; any cave, stone or other natural product, whether or not forming part of the ground, that has been artificially carved, sculptured or worked upon or which (where it does not form part of the place where it is) appears to have been purposely put or arranged in position; any, or any part of any, prehistoric or ancient tomb, grave or burial deposit, or, ritual, industrial or habitation site; and any place comprising the remains or traces of any such building, structure or erection, any such cave, stone or natural product or any such tomb, grave, burial deposit or ritual, industrial or habitation site, situated on land or in the territorial waters of the State', but excludes 'any building or part of any building, that is habitually used for ecclesiastical purposes'.

A recorded monument is a monument included in the list and marked on the map which comprises the Record of Monuments and Places (RMP) set out county by county under Section 12 of the National Monuments (Amendment) Act, 1994 by the Archaeological Survey of Ireland. The definition includes Zones of Archaeological Potential in towns and all other monuments of archaeological interest which have so far been identified.

Figure 3.27 maps the location of entries to the Record of Monuments and Places within and surrounding the Plan area. These include

clusters of monuments at Rossbeg, Cloonmonad and Streamstown and Zones of Archaeological Potential near Westport House in Westport Demesne, at Garvillan in Westport Demesne and to the north of Kings Hill at Deerpark.

3.8.3 Architectural heritage

3.8.3.1 Introduction

The term architectural heritage is defined in the Architectural Heritage (National Inventory) and Historic Monuments Act 1999 as meaning all structures and buildings together with their settings and attendant grounds, fixtures and fittings; groups of structures and buildings; and, sites which are of technical, historical, archaeological, artistic, cultural, scientific, social, or technical interest.

3.8.3.2 Record of Protected Structures

The Record of Protected Structures (RPS) included in the current Development Plan is legislated for under Section 51 of the Planning and Development Act 2000. Figure 3.28 maps these structures. Within the Plan area, protected structures are predominately along the coastline.

Protected Structures are defined as structures, or parts of structures that are of special interest from an architectural, historical, archaeological, artistic, cultural, scientific, social or technical point of view.

In relation to a protected structure or proposed protected structure, the following are encompassed:

- (i) The interior of the structure
- (ii) The land lying within the curtilage²² of the structure;

²² Curtilage is normally taken to be the parcel of ground immediately associated with the Protected Structure, or in use for the purposes of the structure. Protection extends to the buildings and land lying within the curtilage. While the curtilage sometimes coincides with the present property boundary, it can originally have included lands, features or even buildings now in separate ownership, e.g. the lodge of a former country house, or the garden features located in land subsequently sold off. Such lands are described as being attendant grounds, and the protection extends to them just as if they were still within the curtilage of the Protected Structure.

- (iii) Any other structures lying within that curtilage and their interiors; and,
- (iv) All fixtures and features which form part of the interior or exterior of any structure or structures referred to in subparagraph (i) or (iii).

Figure 3.28 maps Records of Protected Structures for the Westport area. They are concentrated mainly in the Town Centre and along the coast.

3.8.4 Existing Environmental Problems

No existing problems have been identified with regard to cultural heritage within the Plan area; however, although many aspects of the heritage are protected under legislation, impacts can still occur as a result of development.

Archaeology can be previously unknown but can be damaged through development causing ground disturbance.

The integrity setting of Westport House and Demesne may be compromised by encroaching development.

Development which involves material alteration or additions to protected structures can detract from the special character of the structure and its setting, and have the potential to result in the loss of features of architectural or historic interest and the historic form and structural integrity of the structure are retained. Development on sites adjoining protected monuments, places or structures can also impact upon the setting of these cultural heritage items.

The cumulative accommodation of large scale development in Westport Town and Environs has the potential to cumulatively impact upon the cultural and architectural heritage of the Plan area.

Encouraging and facilitating the accommodation of growth on brownfield sites will contribute to mitigating a number of the adverse impacts associated with greenfield development, however, brownfield development has the potential to significantly adversely impact upon cultural heritage - both archaeological and architectural - if unmitigated against.

3.8.5 Evolution of Cultural Heritage in the absence of a Development Plan

In the absence of Development Plan, the evolution of cultural heritage would be dependent on developments which take place. Such development would have no guidance as to where to be directed and planning applications would be assessed on an individual basis with cultural heritage protected under a number of strategic actions relating to archaeological and architectural protection.

Beneficial impacts upon the protection of cultural heritage which would be likely to arise as a result of the Plan provisions would not necessarily occur.

In the absence of a Development Plan, the opportunity to designate the Town Centre as an Architectural Conservation Area would be lost.

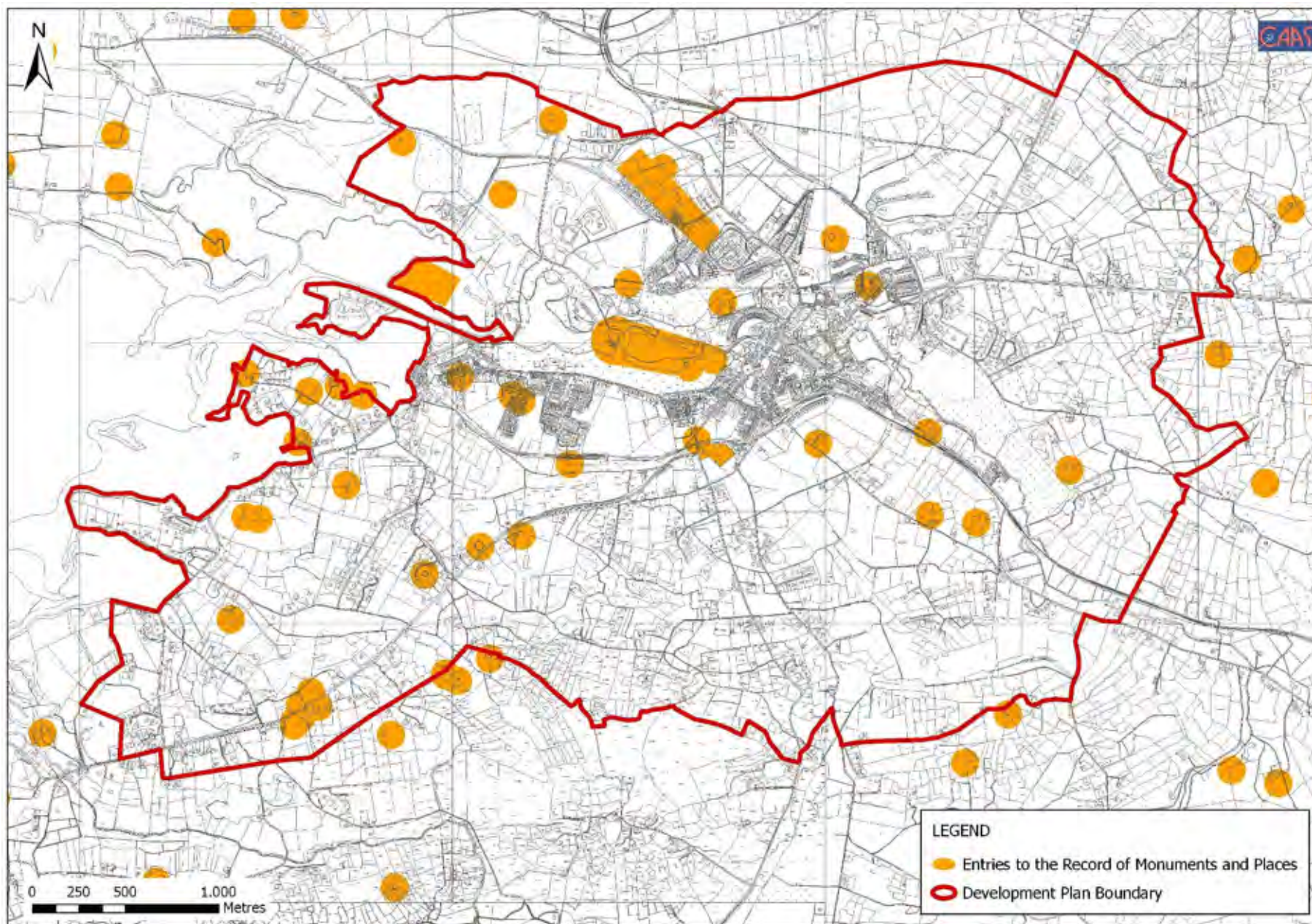


Figure 3.27 Archaeological Heritage: Entries to the Record of Monuments and Places

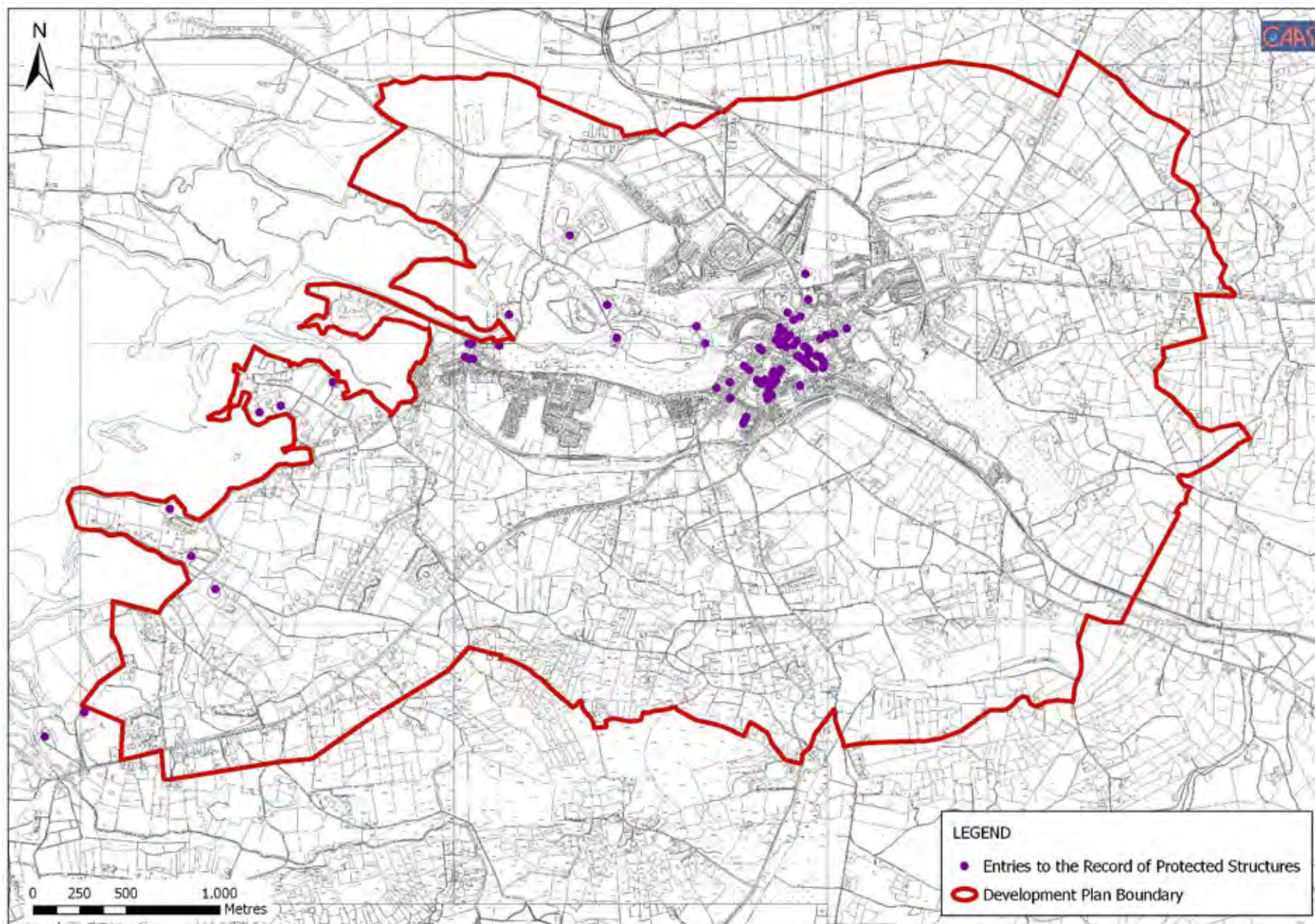


Figure 3.28 Architectural Heritage: Record of Protected Structures

3.9 Landscape

3.9.1 Introduction

Landscapes are areas which are perceived by people and are made up of a number of layers: landform, which results from geological and geomorphological history; landcover, which includes vegetation, water, human settlements, and; human values which are a result of historical, cultural, religious and other understandings and interactions with landform and landcover.

Westport Town and Environs is set within a landscape characterised by a series of steep, flat-topped drumlins running east to west. The town core is located between a series of drumlins and characterised by a series of planned linear streets and urban set-pieces including the Mall, Bridge Street, Shop Street, The Octagon, Peter Street, John Street and the clock tower.

3.9.2 Landscape Appraisal

County Mayo's Landscape Appraisal (CAAS, 2002)²³ subdivides the County into sixteen distinct landscape *character units* each containing an area of land with similar character-giving elements such as slope, vegetation and landuse. The appearance of the landscape is relatively uniform within each Character Unit.

The Landscape Appraisal identifies vulnerable features across the County including river banks, lake shorelines, the coastline and the skylines of the County's uplands.

With regard to both the character units and the vulnerable features, the Appraisal groups together character units into Policy Areas which provide for the guidance of development across the County.

3.9.2.1 Landscape Units

The Plan area falls into Area J: Clew Bay Glacial Drumlins. This coastal area is made up of sharply undulating glacially formed drumlins. River catchment and topographical data indicates that this area tilts into Clew bay

creating a labyrinth of islands from those drumlins that have been partially submerged. The drumlin set wraps around the bay to the north and south in thin coastal strips. The unit is sandwiched between the dominating bulk of Croagh Patrick to the south and the Beg Range to the north, but relatively open vistas are available out to sea and inland toward Castlebar. Clew Bay can be described as an area of high scenic value.

Ridgelines are one of the Critical Landscape Factors of this Landscape Unit. Ridgelines within and surrounding the Plan area are mapped on Figure 3.30.

Ridge lines perform the important roles of providing an area with its identity, acting as dominant landscape focal points, and defining the extent of visual catchments. As with other natural linear features such as shorelines it is important that development does not interrupt the integrity of primary ridgelines. Due to the dominating influence of ridgelines, in instances where penetration does occur, development can appear insubordinate to the landscape in which it sits.

3.9.2.2 Landscape Policy Areas

There are four Landscape Policy Areas and two Sub-Policy Areas in County Mayo, three of which occur in the Westport Town and Environs area.

These Landscape Policy Areas are shown on Figure 3.29. Scenic routes and views are also shown on this map.

Policy Area 2: Lowland Coastal Zone

Overall County Description: Policy Area 2 has as a principle landscape factor a visual association with the coastline. The lowland coast is considered a separate core policy area, in relation to the other steeper coastal area, as it has significantly different landscape attributes sensitivities and robustness.

This area, despite the mildly variant terrain and land cover, has as a principle landscape factor a visual association with the coastline. The lowland coast is considered a separate core policy area, in relation to the other steeper coastal area, as it has significantly different landscape attributes sensitivities and robustness

Policy Area 2 applies to the western part of the Plan area.

²³ CAAS (2002) *Mayo Landscape Appraisal* Mayo: Mayo County Council

Policy Area 3: Uplands, moors, heath or bogs

Overall County Description: These distinctive and vast areas of the County form a single policy unit due to the similar visual characteristics of smooth topography, limited shelter vegetation, often steep slopes and prominent ridge lines, rendering this policy unit similar suitability to absorb development.

Policy Area 3 applies to lands to the south of the Plan area and includes areas along the southern Plan boundary.

Policy Area 4: Drumlins and Lowlands

Overall County Description: These undulating areas of pasture, woodland and forest make up the remainder of the County and are considered to have a generally similar ability to absorb development. Many of these areas are underlain by glacial drumlins and incorporate low-lying lakelands.

This policy area occurs in the east of the Plan area.

3.9.3 Existing Environmental Problems

A problem with regard to the environmental component of landscape is the cumulative visual impact which occurs as a result of developments such as one off houses. Such developments, which individually often do not have significant adverse impacts, have the potential to cumulatively and adversely significantly impact upon sensitive landscapes. This is especially problematic in the sensitive parts of the landscape including the visually prominent, elevated parts of the Westport hinterland and areas along the coastline.

3.9.4 Evolution of Landscape in the absence of a Development Plan

In the absence of a Development Plan, development would be more likely to occur on a one-off, dispersed basis. As outlined above, this would have cumulative impacts on the landscape.

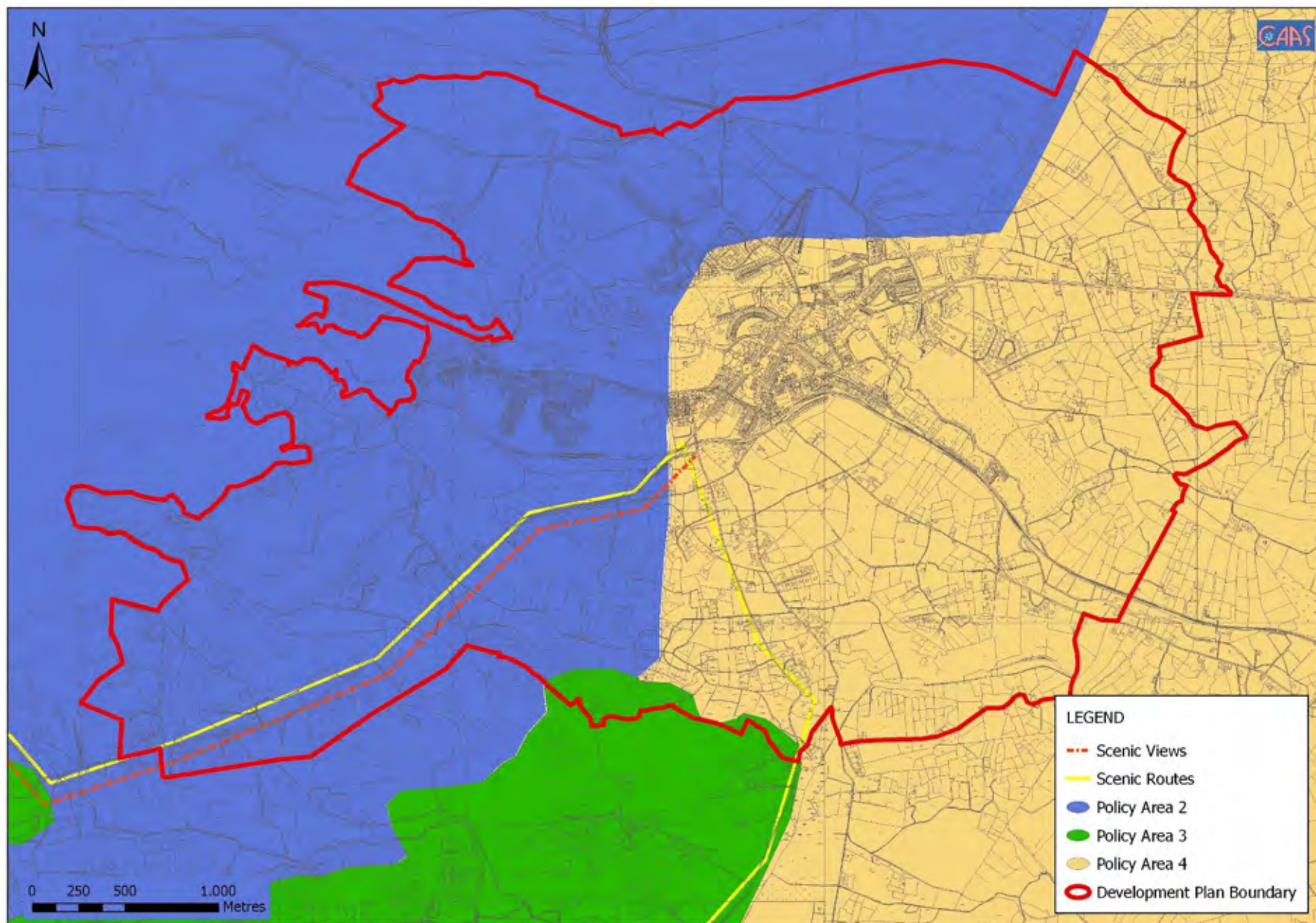


Figure 3.29 Landscape Policy Areas

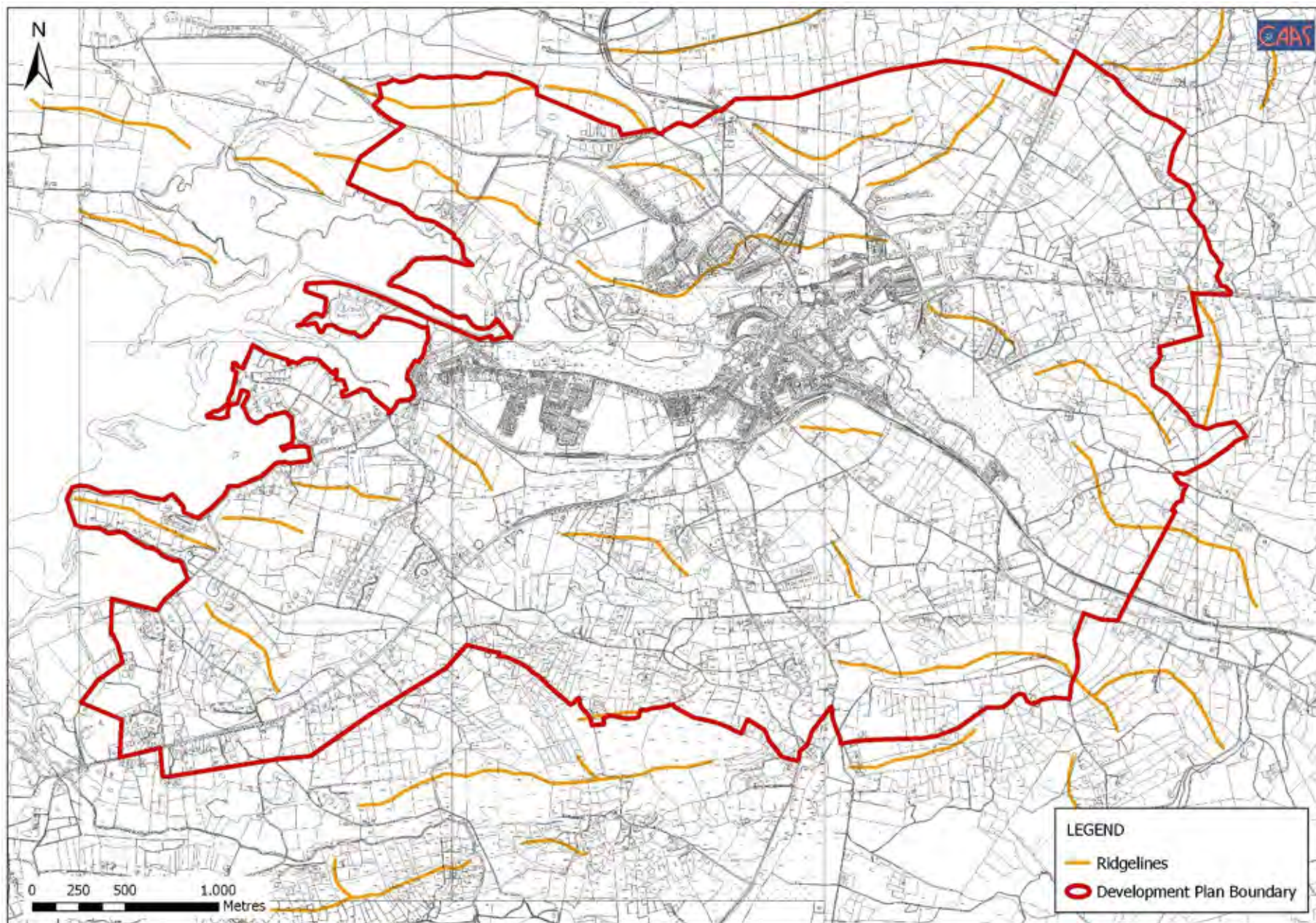


Figure 3.30 Ridgelines in the Westport Environs Area

3.10 Overlay Mapping of Environmental Sensitivities

3.10.1 Introduction

In order to identify where most sensitivities within and adjacent to the Plan area occur, a number of the environmental sensitivities described above were weighted and mapped overlapping each other.

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

Figure 3.31 provides an overlay of environmental sensitivities in and adjacent to Westport Town and Environs.

This overlay mapping has been used by the Plan making team in order to speedily identify the areas where conflicts between development within the Plan area and environmental sensitivities would be likely to occur if unmitigated.

3.10.2 Methodology

A weighting system applied through Geographical Information System (GIS) software was used in order to calculate the vulnerability of all areas in the Westport Town and Environs. Equal value is given to all environmental components (landscape, water, biodiversity etc.).

The scale of sensitivity for each area of the Plan area corresponds to the sensitivity factors: 5 points corresponds to one sensitivity factor; 10 points corresponds to two sensitivity factors; 20 points corresponds to four sensitivity factors (and so on).

The scores for each area are added together in order to determine overall vulnerability as is shown on Table 3.3.

Score	Vulnerability Class
5-15	Low
20-35	Moderate
40-50	High
>60	Extreme

Table 3.3 Overall Vulnerability Classes

Most of the Plan area is identified as being of Low Vulnerability or Moderate Vulnerability. Some small areas are identified as being of a High Vulnerability.

Areas identified as being of a Moderate Vulnerability or High Vulnerability include regions along the estuary of the Carrowbeg River and areas of Archaeological Heritage interest to the south west of the Town.

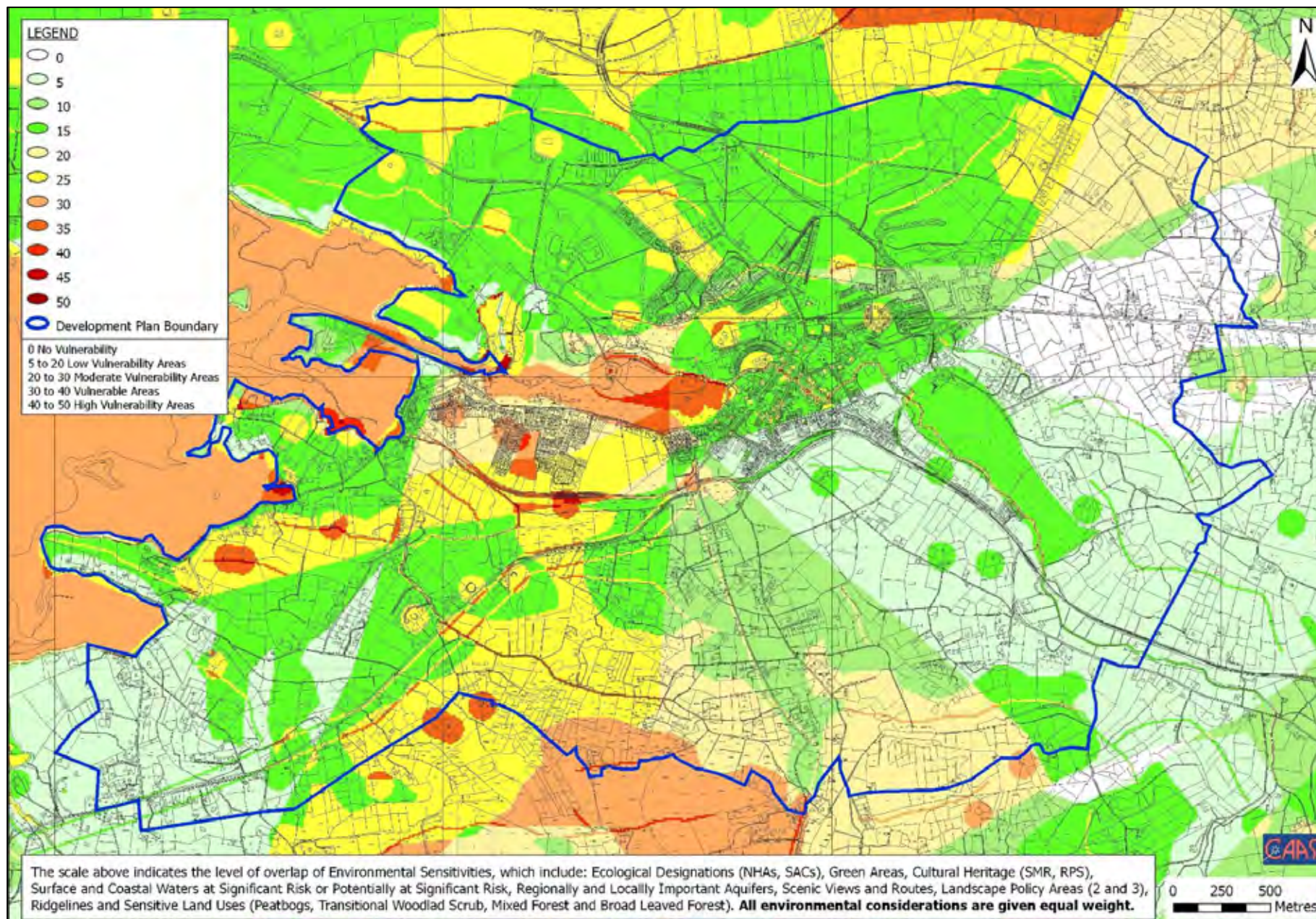


Figure 3.31 Weighted Overlay of Environmental Sensitivities

CAAS for Westport Town Council and Mayo County Council

Section 4 Strategic Environmental Objectives

4.1 Introduction

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

SEOs are distinct from the objectives of the Plan - although they will often overlap - and are developed from international, national and regional policies which generally govern environmental protection objectives. Such policies include those of various European Directives which have been transposed into Irish law, relevant other Irish environmental legislation and the policies of the Mayo County Development Plan 2008 to 2014 all of which are intended to be implemented at the local level in the Westport area and integrated into any Plan for the area.

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

A number of SEOs are linked to indicators which can facilitate monitoring the implementation of the Plan, as well as to targets which the Plan can help work towards.

The primary source used in formulating the SEOs was Table 4B of the SEA Guidelines

(DEHLG, 2004)²⁴. This list has been amended to give effect to objectives that are considered relevant to this Plan. The use of SEOs, although not a statutory requirement, does fulfil obligations set out in Schedule 2B of the Planning and Development (Strategic Environmental Assessment) Regulations 2004 (SI No. 436 of 2004).

4.2 Biodiversity, Flora and Fauna

4.2.1 International, European and National Strategic Actions

4.2.1.1 UN Convention on Biological Diversity 1992

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

4.2.1.2 National Biodiversity Plan 2002

The preparation and implementation of Ireland's National Biodiversity Plan 2002²⁵ complies with an obligation under the UN Convention on Biological Diversity. The overall goal of the Plan is to secure the conservation, including where possible the enhancement and sustainable use of biological diversity in Ireland and to contribute to conservation and sustainable use of biodiversity globally. Objectives following on from this goal are to:

- Conserve habitat diversity, including all sites of special biodiversity importance;
- Conserve species diversity;
- Conserve genetic diversity, both wild and domesticated; and

²⁴ DEHLG (2004) *Implementation of SEA Directive (2001/42/EC): Guidelines for Regional Authorities and Planning Authorities* Dublin: Government of Ireland.

²⁵ Department of Arts, Heritage, Gaeltacht and the Islands (2002) *National Biodiversity Plan* Dublin: Government of Ireland

- Contribute to the conservation and sustainable use of biodiversity and to advancing other obligations of the CBD in the EU, regionally and internationally.

4.2.1.3 Habitats Directive 1992

The European Council Directive on the Conservation of natural habitats and of wild fauna and flora (92/43/EEC), referred to as the Habitats Directive, aims to ensure the conservation of certain natural habitats and species which are at favourable conservation status. Article 10 of the Habitats Directive recognises the importance of ecological networks as corridors and stepping stones for wildlife, including for migration, dispersal and genetic exchange of species of flora and fauna. The Directive requires that ecological connectivity and areas of ecological value outside the network of designated ecological sites are maintained and it recognises the need for the management of these areas through land use planning and development policies.

Special Areas of Conservation (SACs) are designated and protected under the under the Habitats Directive 1992 (92/43/EEC) due to their conservation value for habitats and species of importance in the European Union. In Ireland, the habitats and species occurring in SACs are protected from effects of development occurring outside their boundaries under Section 18 "Prohibition of works on lands outside a European site" of the European Communities (Natural Habitats) Regulations 1997. The Regulations require that where a development is proposed to be carried out, on any land that is not within a protected site and is liable to have an adverse impacts on the protected site in question, including direct, cumulative and indirect impacts, an appropriate assessment, which conforms to an environmental impact assessment, of the likely effects of the proposed development on the site is undertaken. Depending on the conclusions of this assessment such development may be refused planning permission.

The Habitats Directive seeks to establish Natura 2000, a network of protected areas throughout the EU. It is the responsibility of each member state to designate SACs to protect habitats and species, which, together with the SPAs designated under the 1979 Birds Directive, form Natura 2000.

4.2.1.4 Wildlife Act 1976 and Wildlife (Amendment) Act 2000

Natural Heritage Areas (NHAs) are designated and protected due to their national conservation value for ecological and/or geological/geomorphological heritage under the Wildlife (Amendment) Act 2000. They cover nationally important semi-natural and natural habitats, landforms or geomorphological features, wildlife plant and animal species or a diversity of these natural attributes. Proposed NHAs were published on a non-statutory basis in 1995, but have not since been statutorily proposed or designated.

4.2.2 SEOs, Indicators and Targets

The following SEOs, Indicators and Targets for Biodiversity and Flora and Fauna have been developed with regard to the environmental baseline of the Plan area and the objectives of the above strategic actions.

SEO B1:	To avoid loss of relevant habitats, geological features, species or their sustaining resources in designated ecological sites
Indicator B1:	Percentage of relevant habitats and designated ecological sites lost as a result of implementation of the Plan
Target B1:	No losses of relevant habitats, species or their sustaining resources in designated ecological sites as a result of implementation of the Plan

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

SEO B3:	To sustain, enhance or - where relevant - prevent the loss of ecological networks or parts thereof which provide significant connectivity between areas of local biodiversity
Indicator B3:	Percentage loss of connectivity between areas of local biodiversity as a result of implementation of the Plan - as evidenced from a resurvey of CORINE mapping
Target B3:	No ecological networks or parts thereof which provide significant connectivity between areas of local biodiversity to be lost without remediation as a result of implementation of the Plan

Note: the impact of implementing the Plan on aquatic biodiversity and flora and fauna is also influenced by impacts upon the quality of water bodies which relate to SEO W1.

4.3 Population and Human Health

4.3.1 Population

The impacts of implementing the Plan on both the spatial distribution of population and the nature of development (with regard to greenfield and brownfield development) within the Plan area relates to SEO S1 which aims to maximise sustainable brownfield development in line with high level forward planning policy.

4.3.2 Human Health

The impact of implementing the Plan upon human health will be determined by the condition of environmental vectors into which the new population provided for by the Plan will come into contact with.

The condition of these vectors will be determined by past, existing and new land uses and by the extent to which new development is accompanied by appropriate infrastructure (such as waste water treatment infrastructure).

Emission limits for discharges to air, soil and water are set with regards to internationally recognised exposure limit values. These are generally set to be many times the safe exposure limit - in order to provide protection.

4.3.3 SEOs, Indicators and Targets

SEO HH1:	To protect human health from hazards or nuisances arising from exposure to incompatible landuses
Indicator HH1:	Occurrence (any) of a spatially concentrated deterioration in human health
Target HH1:	No spatial concentrations of health problems arising from environmental factors

4.4 Soil

4.4.1 Proposal for a Soil Framework Directive

To date, there is no legislation which is specific to the protection of soil resources. However, there is currently an EU Thematic Strategy on the protection of soil which includes a proposal for a Soil Framework Directive which proposes common principles for protecting soils across the EU.

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

4.4.2 SEOs, Indicators and Targets

The following SEO, Indicator and Target for Soil has been developed with regard to the environmental baseline of the Plan area, the proposed Soil Directive and certain land use strategic actions detailed under Section 5.2 *Interactions with Relevant Planning Policy*.

SEO S1:	Maximise the sustainable re-use of brownfield lands, and maximise the use of the existing built environment rather than developing greenfield lands
Indicator S1:	Area of brownfield land developed over the plan period
Target S1:	Reduced availability of brownfield land (subject to availability on the open market, the demand for such land and the ability for such lands to be sustainably re-used within the provisions of the Plan) at the end of the Plan lifespan

Note: the impact of implementing the Plan on soil quality is influenced by impacts, upon in particular, ground water bodies which relate to SEO W2.

4.5 Water

4.5.1 The Water Framework Directive 2000

4.5.1.1 Introduction

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

4.5.1.2 Good Status for Surface Waters

Good status as defined by the WFD equates to approximately Q4 in the national scheme of biological classification of rivers.

4.5.1.3 Good Status for Transitional Waters

Good status as defined by the Water Framework Directive can be attained by transitional waters through the achievement of *unpolluted* status in the Assessment of Trophic Status of Estuaries and Bays in Ireland (ATSEBI) System which is used by the EPA in order to classify the quality status of transitional waters - it is noted however that neither Westport nor Clew Bay have been classified by this system to date.

4.5.1.4 Quality Standards and Threshold Values for Ground Water

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

This Directive sets up environmental objectives of good groundwater quantitative and chemical status, as well as ensuring a continuity to the 1980 Groundwater Directive (Directive

80/68/EEC on the protection of groundwater against pollution caused by dangerous substances) which is due to be repealed under the WFD by the end of 2013.

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

Groundwater quality standards are environmental quality standards expressed as the concentration of a particular pollutant, group of pollutants or indicator of pollution in groundwater, which should not be exceeded in order to protect human health and the environment. Annex I of the Directive sets standards for two pollutants: Nitrates - 50mg/l - and; Active substances in pesticides²⁶, including their relevant metabolites, degradation and reaction products - 0,1 µg/l and 0,5 µg/l (total²⁷).

Irish groundwater threshold values²⁸ are currently in the process of being set by the EPA.

4.5.2 SEOs, Indicators and Targets

The following SEOs, Indicators and Targets for Water have been developed with regard to the environmental baseline of the Plan area and the objectives of the above strategic actions.

²⁶ 'Pesticides' means plant protection products and biocidal products as defined in Article 2 of Directive 91/414/EEC and in Article 2 of Directive 98/8/EC, respectively.

²⁷ 'Total' means the sum of all individual pesticides detected and quantified in the monitoring procedure, including their relevant metabolites, degradation and reaction products.

²⁸ Threshold values are to be established by Member States for all pollutants and indicators of pollution which characterise groundwater bodies classified as being at risk of failing to achieve good groundwater chemical status under the WFD. Threshold values are required to be established in a way that, should the monitoring results at a representative monitoring point exceed the thresholds, this will indicate a risk that one or more of the conditions for good groundwater chemical status - with regard to the ability of groundwater to support human uses and with regard to waters used for the abstraction of drinking water - are not being met.

SEO W1: To maintain and improve, where possible, the quality of rivers and transitional waters

Indicator W1i: Biotic Quality Rating (Q Value)

Target W1ia: To maintain a biotic quality rating of Q4, in line with the requirement to achieve good water status under the Water Framework Directive, by 2015

Target W1ib: To improve biotic quality ratings, where possible, to Q5

Indicator W1ii: Trophic Status (ATSEBI)

Target W1ii: To maintain or to improve trophic status, where relevant, to unpolluted in line with the requirement to achieve good water status under the Water Framework Directive, by 2015

SEO W2: To prevent pollution and contamination of ground water

Indicator W2: Groundwater Quality Standards and Threshold Values under Directive 2006/118/EC

Target W2: Compliance with Groundwater Quality Standards and Threshold Values under Directive 2006/118/EC

SEO W3: To prevent development on lands which pose - or are likely to pose in the future - a significant flood risk

Indicator W3: Number of developments granted permission on lands which pose - or are likely to pose in the future - a significant flood risk

Target W3: Minimise developments granted permission on lands which pose - or are likely to pose in the future - a significant flood risk

4.6 Air and Climatic Factors

4.6.1 Air Quality

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

4.6.2 SEOs, Indicators and Targets

The following SEO, Indicators and Targets for Air and Climatic Factors have been developed with regard to the environmental baseline of the Plan area and the objectives of the above strategic action.

SEO C1:	To minimise increases in travel related greenhouse emissions to air
Indicator C1i²⁹:	Percentage of population within the Plan area travelling to work or school by public transport or non-mechanical means
Target C1i:	An increase in the percentage of the population travelling to work or school by public transport or non-mechanical means
Indicator C1ii³⁰:	Average distance travelled to work or school by the population of the Plan area
Target C1ii:	A decrease in the average distance travelled to work or school by the population of the Plan area

²⁹ As measured by the Central Statistics Office

³⁰ As measured by the Central Statistics Office

4.7 Material Assets

4.7.1 Waste Water

The treatment of wastewater is governed by the Urban Waste Water Treatment Directive (91/271/EEC) (amended by Directive 98/15/EEC) transposed into Irish law by the Urban Waste Water Treatment Regulations 2001 (SI 254 of 2001). The Directive aims to protect the environment from the adverse effects of the wastewater discharges by ensuring that wastewater is appropriately treated before it is discharged to the environment. The Regulations stipulate that sewage treatment facilities are in place in all towns by 2005.

Appropriate treatment is essential in order to meet the requirements of the Water Framework Directive (see Section 4.5.1).

4.7.2 Traffic

The occurrence of increased numbers of journeys within, to and from development provided for under the Development Plan could cause traffic congestion at certain locations. These locations or *hotspots* would be likely to occur along the main road routes - especially at intersections - and would have elevated levels of air pollution and noise levels thereby providing for a harsh sensory environment which may impact upon human health.

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

4.7.3 SEOs, Indicators and Targets

The following SEOs, Indicators and Targets for Material Assets have been developed with regard to the objectives of the above strategic actions.

SEO M1:	To serve new development with appropriate waste water treatment
Indicator M1:	Number of new developments granted permission which cannot be adequately served by a public waste water treatment plant over the lifetime of the Plan
Target M1:	No new developments granted permission which cannot be adequately served by a public waste water treatment plant over the lifetime of the Plan

SEO M2:	To reduce the overall proportion of car dependency within the Plan area by way of, inter alia, encouraging modal change from car to more sustainable forms of public transport and encouraging development which will not be dependent on private transport
The use of the SEO M2 provides a qualitative directional measure which is used to evaluate the effects of implementing the Plan.	

principle and the precautionary principle are operable.

4.8.1.3 National Monuments Acts

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

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

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

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

4.8 Cultural Heritage

4.8.1 Archaeological Heritage

4.8.1.1 Valletta Convention 1992

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

4.8.1.2 National Heritage Plan for Ireland 2002

The core objective of the National Heritage Plan for Ireland 2002³¹ is to protect Ireland's heritage. In this regard the 'polluter pays'

³¹ Department of Arts, Heritage, Gaeltacht and the Islands (2002) *National Heritage Plan for Ireland* Dublin: Government of Ireland

4.8.2 Architectural Heritage

4.8.2.1 Planning and Development Act 2000

The Record of Protected Structures (RPS) included in the current County Development Plan is legislated for under Section 51 of the Planning and Development Act 2000 and includes structures which form part of the architectural heritage and which are of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest.

4.8.2.2 Architectural Heritage and Historic Monuments Act 1999

The National Inventory of Architectural Heritage (NIAH) is a state initiative under the administration of the DEHLG which was established on a statutory basis under the provisions of the Architectural Heritage (National Inventory) and Historic Monuments (Miscellaneous Provisions) Act 1999. Its purpose

is to identify, record, and evaluate the post-1700 architectural heritage of Ireland, uniformly and consistently as an aid in the protection and conservation of the built heritage. It is intended that the NIAH provides the basis for the inclusion of particular structures in the RPS.

4.8.3 SEOs, Indicators and Targets

The following SEOs, Indicators and Targets for Cultural Heritage have been developed with regard to the environmental baseline of the Plan area and the above strategic actions.

SEO CH1:	To protect archaeological heritage - including entries to the Record of Monuments and Places and unknown archaeology - and the context of the above within the surrounding landscape where relevant
Indicator CH1:	Number of unauthorised developments occurring which result in full or partial loss to archaeological heritage - including entries to the Record of Monuments and Places and unknown archaeology - and the context of the above within the surrounding landscape where relevant
Target CH1:	No unauthorised developments occurring which result in full or partial loss to archaeological heritage - including entries to the Record of Monuments and Places and unknown archaeology - and the context of the above within the surrounding landscape where relevant

SEO CH2: To preserve and protect the special interest and character of architectural heritage with regard to entries to the Record of Protected Structures and their context within the surrounding landscape where relevant

Indicator CH2i: Number of unauthorised developments occurring which result in physical loss or loss entries to the Record of Protected Structures and/or their context within the surrounding landscape where relevant

Indicator CH2ii: Number of additions to the Record of Protected Structures and the number of new ACAs and comparison with the NIAH

Target CH2i: No unauthorised developments occurring which result in physical loss or loss entries to the Record of Protected Structures and/or their context within the surrounding landscape where relevant

Target CH2ii: Make Additions to the Record of Protected Structures and make new ACAs, where appropriate

4.9 Landscape

4.9.1 European Landscape Convention 2000

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

4.9.2 SEOs, Indicators and Targets

The following SEO, Indicator and Target for Landscape has been developed with regard to the environmental baseline of the Plan area and the above strategic action.

SEO L1:	To avoid significant adverse impacts on the landscape, especially with regard to landscapes which are most valuable and most sensitive to change and scenic views and routes which are protected under the current County Development Plan
Indicator L1:	Number of complaints received from statutory consultees regarding avoidable impacts resulting from development which is granted permission under the Plan
Target L1:	No developments permitted which result in avoidable impacts on Westport's most sensitive landscapes

Section 5 Context for a Development Plan for Westport

5.1 The Development Plan

5.1.1 Introduction

The Westport and Environs Development Plan has been prepared in response to the development pressures facing Westport Town and Environs and the need to provide a positive framework for the future development of the area that is consistent with the policies and objectives contained in the Mayo County Development Plan 2008 - 2014 and other higher forward planning strategic actions.

The Plan relates to the functional area of Westport Town Council (the area within the Town boundary) and part of the functional area of Mayo County Council (the area outside the Town boundary and within the Environs boundary).

5.1.2 Legislative Context

Under Section 9 of the Planning and Development Acts 2000-2007, every planning authority must make a development plan, setting the framework for all future development in the planning authorities' area for the stated period, for the whole functional area of the authority every six years.

A planning authority may, with the agreement of one or more planning authorities, which are adjoining councils, make a single development plan for the area and the environs of the county borough, as may the case be. During the review period of the Westport Town Development Plan 2003-2009 it was decided to also review the 2005 Local Area Plans for Roman Island, South Westport and Westport Environs and produce a comprehensive Development Plan for Westport Town and Environs. It is in this context in which Westport Town Council and Mayo County Council - the planning authorities for the administrative area within the Plan boundary - have prepared the Westport and Environs Development Plan.

The Development Plan is intended to provide for the proper planning and sustainable

development for Westport Town and Environs for a duration of six years from the date on which it has been adopted, unless amended or revoked within that period.

It is intended that the long-term vision articulated by the Plan will give a degree of continuity and certainty to the future development of the Plan area.

5.1.3 Structure of the Development Plan

The Development Plan consists of a Written Statement, an Environmental Report and Development Plan maps, which give a graphic representation of the proposals of the Plan, indicating land use and other development standards together with various local objectives.

The Written Statement is divided into seven sections as follows:

- Section 1 - Legislative Context;
- Section 2 - Social, Economic, Infrastructural and Environmental Analysis;
- Section 3 - Development Strategy for Westport;
- Section 4 - Policies and Objectives;
- Section 5 - Land Use Zoning;
- Section 6 - Development Management; Standards; and,
- Implementation and Monitoring.

The Development Plan Maps include:

- Map 1 - Land Use Zoning Objectives;
- Map 2 - Specific Objectives;
- Map 3 - Built Heritage; and,
- Map 4 - Natural Environment.

5.1.4 What the Development Plan will seek to do

The principal objectives of the Development Plan are:

- To provide a framework which will allow for a balanced and coordinated

development of the plan area in the interests of the common good and the proper planning and sustainable development of the area;

- To reinforce the existing strong urban structure and to consolidate and extend the urban core whilst protecting the unique drumlin topography of the Town;
- To clearly indicate the overall development strategy for the Plan area including areas capable of accommodating built development, the conservation of certain areas and the provision of passive and active amenity spaces;
- To provide for a mix of uses within the Plan area which will increase the viability and the sustainability of residential areas and which will allow for the efficient provision of social and community infrastructure as well as the efficient use of existing services and utilities infrastructure;
- To provide design guidelines for new development in the Plan area and in particular to provide guidance on appropriate site planning, overall building form, building typologies and scale of proposed development;
- To identify the requirement for new roads and other infrastructure and to indicate the routing and/or land requirements for such proposals
- To identify suitable development which utilises Roman Island as a tourism/recreational area for Westport;
- To identify lands for employment and enterprise uses;
- To provide for the protection of areas of high amenity; and,
- To control the spread of uncoordinated ribbon development in the Environs of Westport in the interests of the common good and the proper planning and sustainable development of the area.

5.1.5 Alternatives

Sections 6 and 7 of this report identify, describe and evaluate different alternatives of how to achieve what the Development Plan seeks to do as outlined under Section 5.1.4 above, taking into account the relevant land use strategic actions (see Section 5.2 below), the SEOs identified in Section 4 as well as the geographical scope of the Development Plan.

The evaluation of the alternatives resulted in the identification of potential impacts. The evaluation informed the selection of the alternative to be developed for the Plan.

5.2 Interactions with Relevant Planning Policy

5.2.1 Introduction

The Plan is nested in a hierarchy of land use forward planning strategic actions with which it must comply and be consistent.

5.2.2 National Development Plan 2007-2013

The National Development Plan (NDP) 2007-2013 sets out Ireland's future as an enlarged and increasing urbanised society with a defined urban hierarchy.

The NDP envisages a total investment of €184 billion over seven years to "secure the further transformation of our country socially and economically within an environmentally sustainable framework".

The NDP integrates strategic development frameworks for regional development based on a strategy of 'gateway cities' and 'hub towns' to achieve the goals of economic growth in regions and provide major investment for the rural economy in a sustainable manner.

The NDP provides general policies for infrastructure development for the regions of Ireland. It includes a number of strategic objectives for the Western Region in which Westport is located.

The need for a National Spatial Strategy was formally recognised by the Government with the publication of the 2000-2006 NDP.

5.2.3 National Spatial Strategy 2002-2020

The National Spatial Strategy 2002-2020 (NSS) is an overall spatial policy framework designed to achieve a better balance of social, economic, physical development and population growth between the regions. Its objective is to improve the effectiveness of public investment in infrastructure and other relevant services around the country.

The strategy identifies a number of *gateways*, *hubs* and *key towns* which support each other. Westport has been identified as a *key town* in the strategy which represents opportunities for development and expansion through effective promotion and marketing.

The NSS states that sustainable provision of housing in urban areas involves, among other things:

- Concentrating development in locations where it is possible to integrate employment, community services, retailing and public transport;
- Mixed-use and well-designed higher density development, particularly near town centres and public transport nodes; and,
- The efficient use of land by consolidating existing settlements.

5.2.4 National Sustainable Development Strategy 1997

Sustainable development is development that meets the needs of the present generation without compromising the ability of future generations to meet their needs. This encompasses not only the protection of the natural and man-made environment but also the social, economic and cultural fabric of society and achieving a balance between these dimensions in an integrated manner.

The Government's policy for sustainable development is set out in documents such as the National Sustainable Development Strategy 1997 - *Sustainable Development: A Strategy for Ireland 1997* - and *Making Ireland's Development Sustainable 2002*.

Sustainable Development: A Strategy for Ireland 1997 provides a framework for the achievement of sustainable development at local level. It identifies 4 key ways Development Plans can contribute to the achievement of sustainability:

- Encourage efficient use of energy, transport and natural resources through careful selection of development locations;
- Promote the most effective use of already developed areas;
- Secure protection and enhancement of the natural environment; and,
- Accommodate new development needs in an environmentally sustainable way.

Following on from this, *Making Ireland's Development Sustainable*:

- Reviews progress with sustainable development in Ireland since the Rio Earth Summit in Rio de Janeiro in 1992;
- Assesses challenges faced by the country with regard to achieving sustainable development; and,
- Sets out policies and actions to meet that challenge.

5.2.5 West Regional Authority Regional Planning Guidelines 2004-2016

Ireland is divided into eight regional forward planning regions, Dublin, Midlands, Mid East, Mid West, South East, South West, West and Border, each with its own regional planning authority composed of Elected Members selected by the constituent local government councils. Regional planning authorities are required, under the Planning and Development (Regional Planning Guidelines) Regulations 2003 (SI No. 175 of 2003), to draw up regional planning guidelines (RPGs), long term strategic

planning frameworks, for their relevant region. RPGs must have regard to the National Spatial Strategy.

The West Regional Authority Regional Planning Guidelines 2004-2016 were adopted in May 2004. The principal objective of the RPGs is to put in place a broad planning framework for the region and to provide an overall long term strategy for the making of Development and Development Plans for each local authority in the region.

Westport is one of the *key towns*, along with Swinford and Charlestown, which is located in Zone B - Central Mayo.

5.2.6 Mayo County Development Plan 2008- 2014

The Mayo County Development Plan was adopted in 2008 and sets out a framework for land use development within the County until 2014. The plan sets out a long-term vision for the manners in which the County can be developed and its environment protected and enhanced, employing the principles of sustainable development and social partnership.

5.2.7 DEHLG Residential Guidelines

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

5.3 Environmental Protection Objectives

The Plan is subject to a number of high level national, international and regional environmental protection policies and objectives, including those which have been identified as Strategic Environmental Objectives (SEOs) in Section 4.

Examples of Environmental Protection Objectives include the aim of the EU Habitats

Directive - which is to contribute towards ensuring the protection of bio-diversity through the conservation of natural habitats and of wild fauna and flora in the European territory of Member States - and the purpose of the Water Framework Directive - which is to establish a framework for the protection of inland surface waters, transitional waters, coastal waters and groundwater.

The Development Plan must be consistent with these objectives and implement them at local level in Westport Town and Environs.

Section 6 Description of Alternative Plan Scenarios

6.1 Introduction

One of the critical roles of the SEA is to facilitate an evaluation of the likely environmental consequences of a range of alternative strategies for accommodating future development in Westport and its Environs.

These alternative strategies must be realistic, capable of implementation, and should represent a range of different approaches within statutory and operational requirements of the particular plan. In some cases the preferred strategy will combine elements from the various alternatives considered.

This section identifies and describes different plan scenarios, taking into account higher level strategic actions as well as the geographical scope of the area.

The scenarios are evaluated for their environmental consequences in Section 7. The policies and objectives which are required to realise the alternative which was chosen for the Plan are evaluated in Section 8.

Mitigation measures which have been integrated into the Plan are identified Section 9.

6.2 Identification and Description of Alternative Scenarios

6.2.1 Introduction

The following summarises a series of 'Scenarios' which provide alternative visions of how the future development of Westport Town and Environs might occur. These are neither predictions nor preferences - instead they offer a range of plausible and internally consistent narratives of the outcome of different planning and development strategies. These provide the basis for the comparative evaluation of the likely environmental effects of each plan, which in turn serves the purpose of identifying which features of plans and policies are likely to be sensitive or robust over the widest range of circumstances.

The scenarios identify different future extents of the Town's built development envelope and of the existing residential nodes in the Environs.

6.2.2 Alternative Scenario 1

6.2.2.1 Background

Alternative Scenario 1 (see Figure 6.1) takes place against a background of significant slowing of economic activity as well as a steady or falling population coupled with increasingly restrictive interpretations of environmental designations and a very local assertive planning regime.

6.2.2.2 Description

Significant growth and investment is concentrated within the serviced lands of the contiguous urban areas of Westport. There is a particular emphasis on the encouragement of infill and 'brownfield' development as well as continued strong emphasis on conservation and re-use of older building stock. New building is regarded as a last resort in core conservation areas. Elsewhere new developments are expected to achieve high levels of density, high urban design standards and low dependency on car use.

Development in the Environs is tightly confined to established nodes of development and their immediate environs. In these areas, there is a policy to encourage consolidation and intensification - to form small serviced 'nodes'.

This Scenario has elevated levels of non-vehicular mobility - including walking and cycling. It foresees a high and effective level of utilisation of existing services and infrastructure - with little need for additional capital investment.

6.2.3 Alternative Scenario 2

6.2.3.1 Background

Alternative Scenario 2 (see Figure 6.2) takes place against a background of slowing of economic activity coupled with increased awareness of the need to comply with new environmental designations - for habitats and

water quality in particular - all co-ordinated by a pragmatic yet careful planning approach.

6.2.3.2 Description

Most growth and investment is concentrated within the serviced lands of the contiguous urban areas of Westport. There is an aspiration to encourage infill and 'brownfield' development and to continue the conservation and re-use of older building stock where feasible. Transportation planning places an equal emphasis on car and pedestrian journeys - except in central areas where pedestrians have priority.

Development in the Environs is directed towards established nodes of development. Consolidation and intensification along selected serviced roads aims to balance the demand for suburban and semi-rural housing with the need for orderly and clear transitions between rural and built-up areas.

There are sufficient existing and planned services and infrastructure to accommodate the existing and near future needs of this scenario.

6.2.4 Alternative Scenario 3

6.2.4.1 Background

Alternative Scenario 3 (see Figure 6.3) takes place in a period of economic and population growth and limited environmental or planning restrictions.

6.2.4.2 Description

Core urbanised areas expand and intensify especially around a number of planned 'nodes'.

Large areas of poorly co-ordinated, low density development occur in parts of the Environs – especially along the coast and along some major roads.

There is overloading of some services and infrastructure.

Traffic congestion is an increasing issue, especially in the centre. In summer, long delays are common in the centre and at junctions along the Relief Road. Water supply experiences occasional shortages and there is some overloading of the waste water treatment facility.

6.2.5 Alternative Scenario 4

6.2.5.1 Background

Alternative Scenario 4 (see Figure 6.4) takes place rapidly in a period of strong economic growth, high population growth and few environmental or planning restrictions.

6.2.5.2 Description

Core urbanised areas expand and intensify with larger-scale development occurring further from the Centre.

There is very extensive, though poorly co-ordinated low density development throughout the Environs – especially along the coast and along all existing major and minor roads.

There is significant overloading of all services and infrastructure. Traffic congestion is a serious issue in the Centre. Everywhere else, long delays are common throughout the year at junctions along the Relief Road during peak hours. Water supply experiences seasonal shortages and there is significant overloading of the waste water treatment facility - though efforts to increase its size and capacity are resisted by new residential developments in the vicinity.

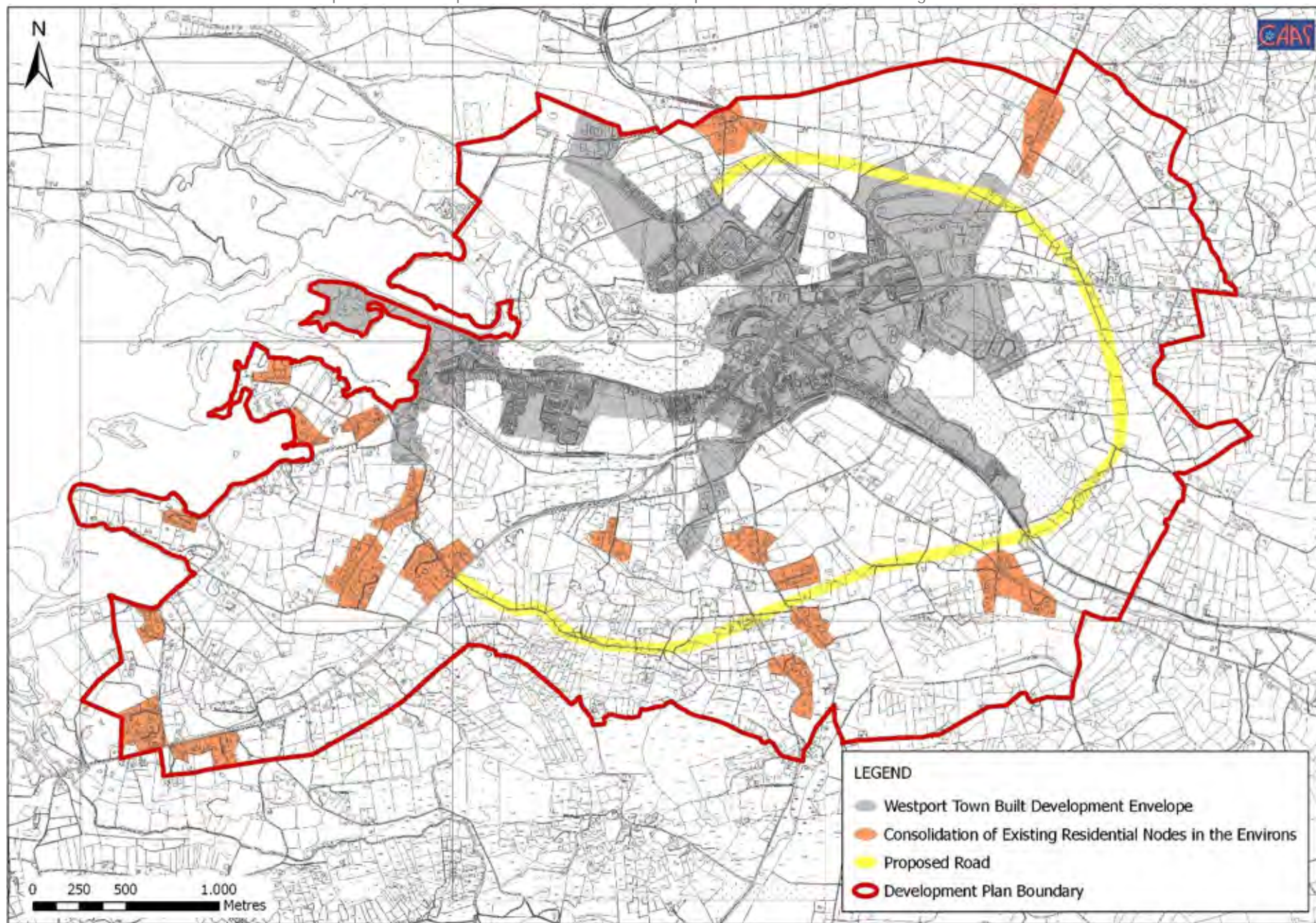


Figure 6.1 Alternative Scenario 1

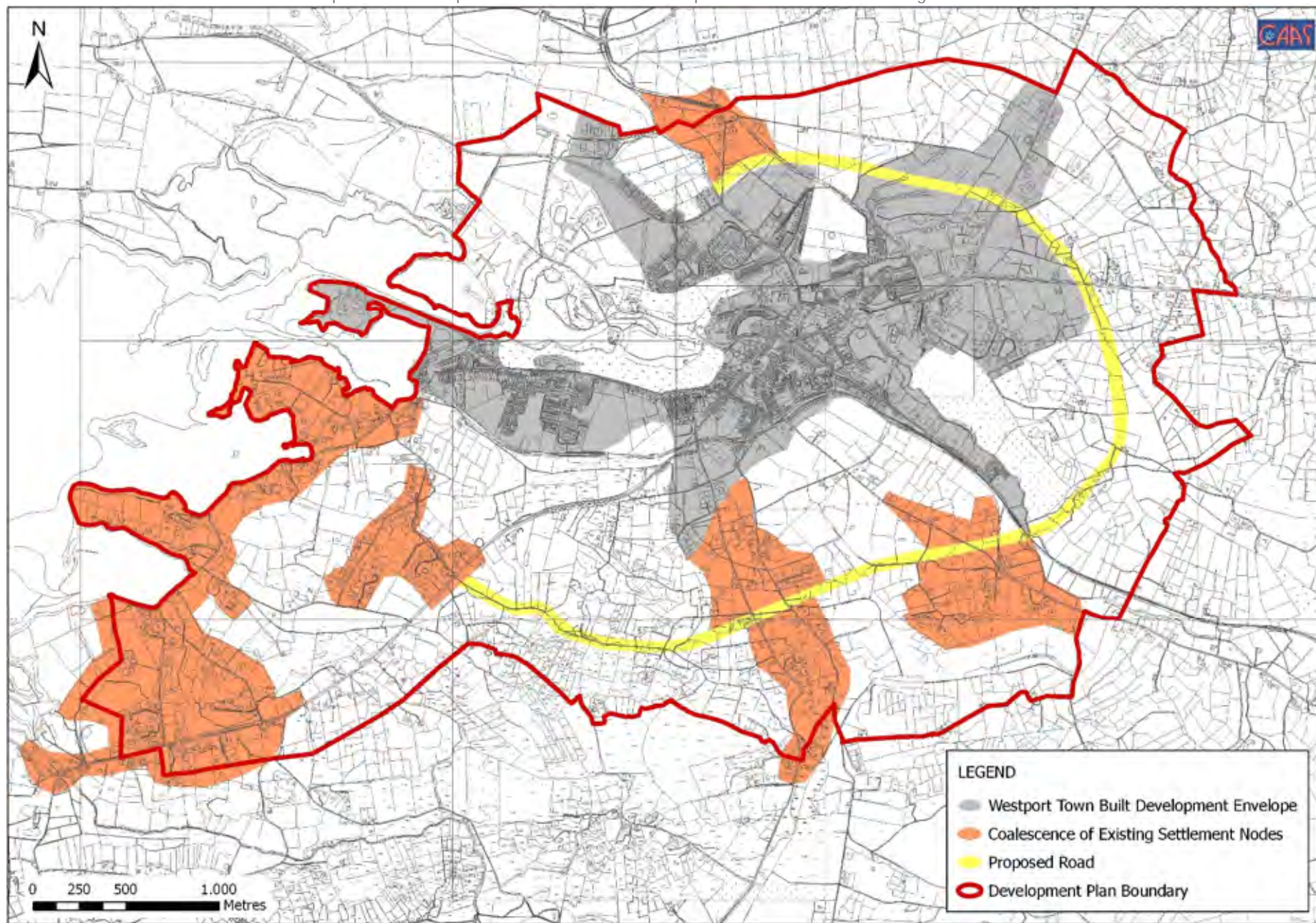


Figure 6.2 Alternative Scenario 2

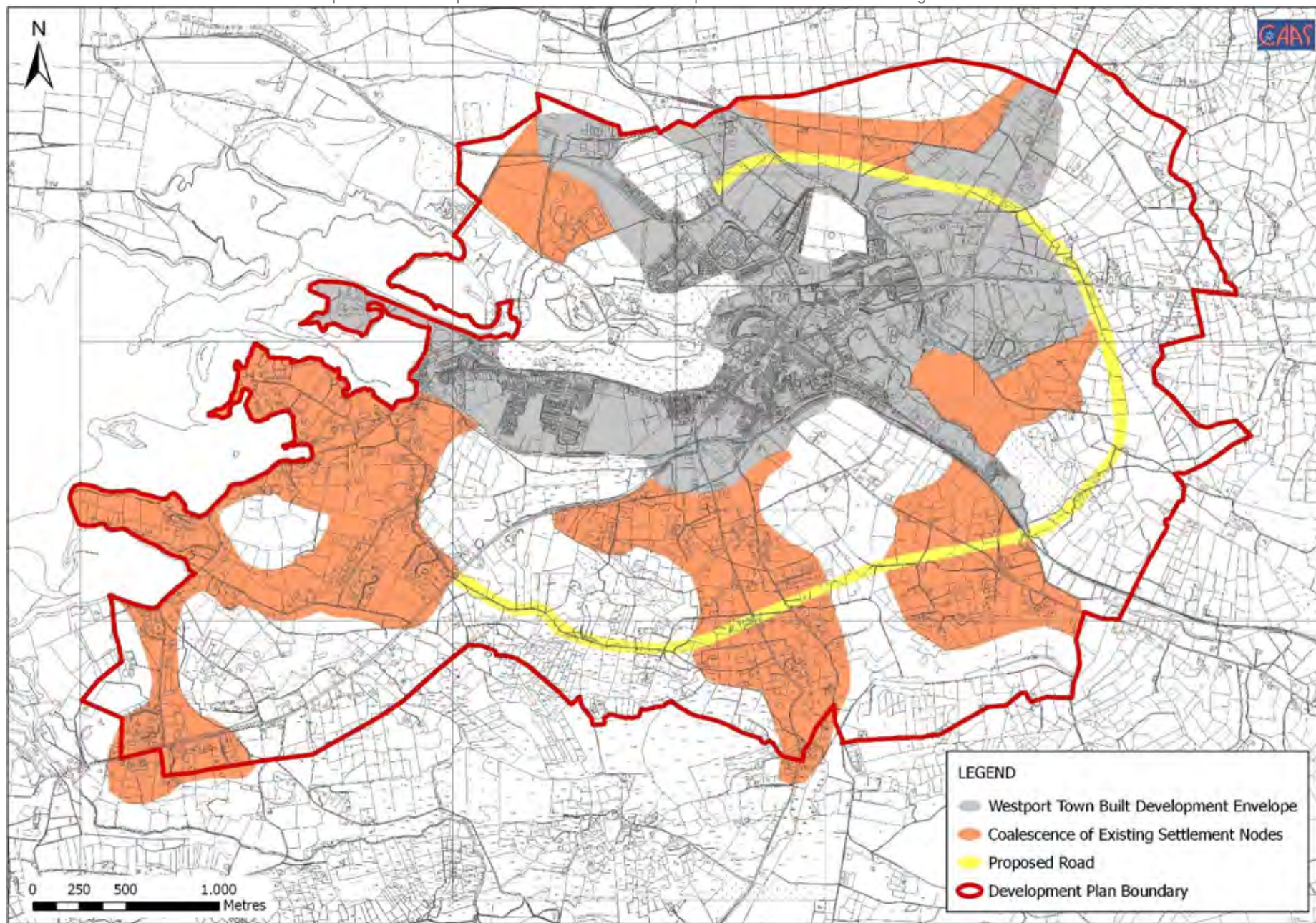


Figure 6.3 Alternative Scenario 3

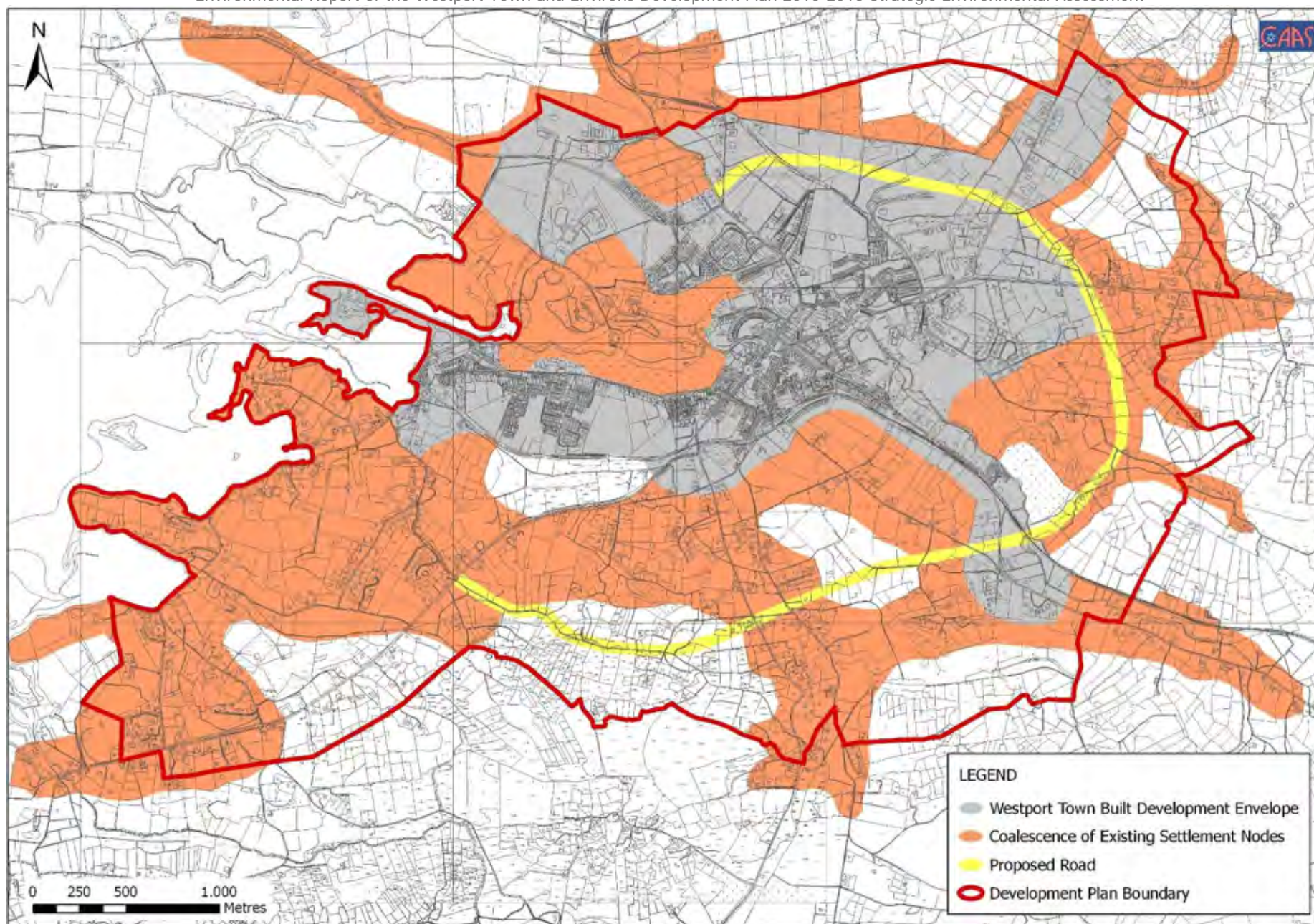


Figure 6.4 Alternative Scenario 4

Section 7 Evaluation of Alternatives

7.1 Introduction

The objective of this section is to determine the relative merits of a range of the alternative scenarios for the future development of Westport Town and its Environs. This determination sought to understand whether each alternative was likely to improve, conflict with or have a neutral interaction with the area's environment.

Scenarios are evaluated in a succinct and focused way for both planning and environmental impacts against both the existing environment and the Strategic Environmental Objectives (SEOs).

In order to comply with the SEA Directive Strategic Environmental Objectives have been grouped under relevant parent components such as *water* and *landscape*.

7.2 Methodology

7.2.1 Existing Environment

In order to identify the extent to which environmental sensitivities are likely to be impacted upon by implementation of the Plan, use has been made of the description of the environmental baseline, including the maps which spatially represent components of the environmental baseline, provided within Section 3.

7.2.2 Strategic Environmental Objectives (SEOs)

Based on an understanding of the existing and emerging environmental conditions in the Plan area a series of SEOs were developed in order to assess the likely environmental effects which would be caused by implementation of each of the four alternative scenarios described in Section 6. The alternatives are evaluated using compatibility criteria (see Table 7.1) in order to determine how they are likely to affect the status of these SEOs.

Table 7.2 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 entered into the conflict column - e.g. B1 which stands for SEO likely to be affected - in this instance 'to avoid loss of relevant habitats, geological features, species or their sustaining resources in designated ecological sites'.

The interactions between the SEOs and both the alternatives and the Policies and Objectives of the Plan (see Section 8) determine the effects of implementing the Plan. These effects include secondary, cumulative, synergistic, short, medium and long-term permanent and temporary, positive and negative effects.

Likely to Improve status of SEOs	Probable Conflict with status of SEOs- unlikely to be mitigated	Potential Conflict with status of SEOs- likely to be mitigated	Uncertain interaction with status of SEOs	Neutral Interaction with status of SEOs	No Likely interaction with status of SEOs
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Table 7.1 Criteria for appraising the effect of Plan provisions on Strategic Environmental Objectives

SEO Code	SEO
B1	To avoid loss of relevant habitats, geological features, species or their sustaining resources in designated ecological sites
B2	To avoid significant adverse impacts, including direct, cumulative and indirect impacts, to relevant habitats, geological features, species or their sustaining resources in designated ecological sites by development within or adjacent to these sites
B3	To sustain, enhance or - where relevant - prevent the loss of ecological networks or parts thereof which provide significant connectivity between areas of local biodiversity
HH1	To protect human health from hazards or nuisances arising from exposure to incompatible landuses
S1	Maximise the sustainable re-use of brownfield lands, and maximise the use of the existing built environment rather than developing greenfield lands
W1	To maintain and improve, where possible, the quality of rivers and transitional waters
W2	To prevent pollution and contamination of ground water
W3	To prevent development on lands which pose - or are likely to pose in the future - a significant flood risk
C1	To minimise increases in travel related greenhouse emissions to air
M1	To serve new development with appropriate waste water treatment
M2	To reduce the overall proportion of car dependency within the Plan area by way of, inter alia, encouraging modal change from car to more sustainable forms of public transport and encouraging development which will not be dependent on private transport
CH1	To protect archaeological heritage - including entries to the Record of Monuments and Places and unknown archaeology - and the context of the above within the surrounding landscape where relevant
CH2	To preserve and protect the special interest and character of architectural heritage with regard to entries to the Record of Protected Structures and their context within the surrounding landscape where relevant
L1	To avoid significant adverse impacts on the landscape, especially with regard to landscapes which are most valuable and most sensitive to change and scenic views and routes which are protected under the current County Development Plan

Table 7.2 Strategic Environmental Objectives (SEOs)³²

³² Strategic Environmental Objectives (SEOs) are methodological measures which are developed from international, national, regional and county policies which generally govern environmental protection objectives and against which the environmental effects of the Plan can be tested. The SEOs are used as standards against which the development strategies, policies and objectives of the Plan can be evaluated in order to help identify areas in which significant adverse impacts are likely to occur, if unmitigated against.

7.3 Evaluation of Alternative Scenario 1

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- **Tourism - Socio-Economic Effects**

This scenario would stabilise or reduce existing effects on the environment - resulting in a significant strategic capacity to attract and sustain both a growing tourism sector as well as other new economic activities.

- **Water and Waste Water**

This scenario would provide the best opportunity for the river, estuarine, coastal and ground water bodies within and surrounding the Plan area to achieve the Water Framework Directive objective of good status by 2015³⁴. This scenario would help achieve compliance with the objectives of the Urban Waste Water Treatment Directive (91/271/EEC) (amended by Directive 98/15/EEC)³⁵. This, in turn, will have direct, indirect and cumulative positive effects on human health³⁶, economic development and on the resources necessary to sustain designated sites and species³⁷.

Provided planned expansions to the water supply network are made operational before developments are occupied, there would be sufficient treated drinking water available to meet demand.

- **Traffic**

By placing emphasis on the encouragement of infill and 'brownfield' development within existing built up areas and by requiring new developments elsewhere to achieve high

levels of density and low dependency on car use this scenario would contribute to elevated levels of non-vehicular mobility - including walking and cycling - and help to reduce car dependency and its associated greenhouse gas emissions³⁸.

- **Cultural Heritage and Landscape**

This scenario would be likely to significantly beneficially impact upon the protection of core architectural heritage areas by regarding new buildings as a last resort in these areas. In these and other areas, brownfield and infill development would be required to achieve high urban design standards.

Mitigation measures and measures for the construction of projects arising out of development management and EIA processes would be required to be adhered to in order to mitigate adverse effects on RMP entries, unknown archaeology and Protected Structures³⁹.

This scenario would not safeguard and beneficially impact upon the protection of the landscape of the Town and Environs; new development upon ridges would be avoided and greenfield development would be minimised⁴⁰.

- **Biodiversity, Flora & Fauna and Soil**

It is likely that this scenario would help to avoid increased direct, indirect and cumulative effects on designated sites, protected species and the resources necessary to sustain them⁴¹.

By minimising new greenfield development this scenario would help to avoid increases in the encroachment of greenfield development into habitats at the fringes of the Town and along the coast⁴².

³³ Footnotes like this are used in this section in order to identify instances where interactions between the relevant Scenario and the relevant SEOs occur. The nature of these interactions are identified on Table 7.3.

³⁴ SEOs W1 & W2

³⁵ SEOs M1

³⁶ SEO HH1

³⁷ SEOs B1 & B2

³⁸ SEOs C1 & M2

³⁹ SEO CH1 & CH2

⁴⁰ SEO L1

⁴¹ SEOs B1 & B2

⁴² SEOs B3

- **Sustainable Land Use**

By placing emphasis on the encouragement of infill and 'brownfield' development within existing built up areas and by requiring new developments elsewhere to achieve high levels of density this scenario would be sure to minimise greenfield development and its associated effects⁴³.

7.4 Evaluation of Alternative Scenario 2

- **Tourism - Socio-Economic Effects**

Subject to compliance with normal planning and environmental standards - and higher standards of compliance in coastal, elevated and historic sites - this Scenario is within the carrying capacity of the receiving environment; implementation of this scenario would be unlikely to significantly affect the Town's tourism industry.

- **Water and Waste Water**

As most growth is concentrated within the serviced lands of the contiguous urban areas of Westport, it is likely that - provided the provisions of the Urban Waste Water Treatment Directive (91/271/EEC) (amended by Directive 98/15/EEC) are complied with - this scenario would help to reduce significant further declines in the status of surface and groundwaters⁴⁴.

It is noted however that if development was to occur without appropriate waste water infrastructure then it is likely that the quality of water bodies both within and outside of the Town area to meet WFD commitments would be reduced and adverse effects with regard to biodiversity and flora and fauna⁴⁵ and human health⁴⁶ as a result of poor water quality could arise⁴⁷.

Provided planned expansions to the water supply network are made operational before developments are occupied, there would be sufficient treated drinking water available to meet demand.

- **Traffic**

Although traffic management measures would remain a necessity, the direction of growth towards already serviced lands together with the medium long term development of relief roads would contribute towards a reduction in increases in traffic levels.

Transportation planning would place an equal emphasis on car and pedestrian journeys helping to reduce increases in car dependency and greenhouse gas emissions⁴⁸.

- **Cultural Heritage and Landscape**

The brownfield development aspired to under this scenario would have the potential to impact upon architectural and archaeological heritage. Mitigation measures and measures for the construction of projects arising out of development management and EIA processes would be required to be adhered to in order to mitigate adverse effects on RMP entries, unknown archaeology and Protected Structures⁴⁹.

New development would have to avoid the ridges of the Town's drumlins in order to prevent individual instances of impacts upon the Town's landscape⁵⁰.

- **Biodiversity, Flora & Fauna and Soil**

Developments under this scenario would need to be planned carefully in order to ensure that areas of national importance designated for protection along the coast⁵¹, aquatic habitats and the ecological connectivity that remains within the Plan area and along the coast are all maintained and enhanced⁵².

⁴³ SEO S1

⁴⁴ SEOs W1, W2 & M1

⁴⁵ SEOs B1 & B2

⁴⁶ SEO HH1

⁴⁷ SEOs W1 & W2

⁴⁸ SEOs C1 & M2

⁴⁹ SEO CH1 & CH2

⁵⁰ SEO L1

⁵¹ SEOs B1 & B2

⁵² SEO B3

- **Sustainable Land Use**

Under this scenario, there would be an aspiration to encourage infill and 'brownfield' development and to continue the conservation and re-use of older building stock where feasible. This aspiration would be likely to reduce the extent of greenfield development which would arise as well as its associated effects⁵³.

Consolidation and intensification along selected serviced roads would help to balance the demand for suburban and semi-rural housing with the need for orderly and clear transitions between rural and built-up areas.

7.5 Evaluation of Alternative Scenario 3

- **Tourism - Socio-Economic Effects**

The implementation of this Scenario 3 would be likely to arouse a number of concerns from Westport's tourism sector especially with regard to the potential the scenario has to significantly detract from the Town's distinctiveness⁵⁴ and scenery⁵⁵ and the potential it has to cause traffic congestion in the summer months⁵⁶.

- **Water and Waste Water**

The extent of development under this scenario would be likely to result in some overloading of the Town's waste water treatment facility⁵⁷ while large areas of poorly co-ordinated, low density development would make serving developments with waste water collection infrastructure more costly. Deterioration of water quality⁵⁸ would occur, reducing the ability of Westport's water bodies to meet WFD commitments⁵⁹.

Water supply would experience occasional shortages.

- **Traffic**

Traffic congestion would become an increasingly large concern of the tourism sector under this Scenario - in summer, long delays would be common in the centre of the Town and at junctions along the relief road.

In the Environs, large areas of poorly co-ordinated, low density development would be likely to undermine the economic viability of the provision of public transport services. Dependency upon private transport would be likely to increase resulting in adverse impacts upon traffic levels and increased greenhouse gas emissions⁶⁰.

- **Cultural Heritage and Landscape**

A loss of distinctiveness in the Town and impacts upon scenery would become an increasingly large concern of the tourism sector under this scenario.

Development under this scenario would be more likely than that under scenarios 1 or 2 to encroach upon areas which are sensitive from both a cultural and landscape perspective⁶¹ - most notably on the ridges surrounding the town and along the coast.

Low density development to the north of the Westport House and its Demesne would need to be carefully planned in order to avoid impacting upon the context of the Estate⁶².

- **Biodiversity, Flora & Fauna and Soil**

Poor water quality⁶³ - in the rivers, on the estuary and in the groundwater - coupled with disturbance arising from development along the coast would threaten to affect the integrity and

⁵³ SEO S1

⁵⁴ SEOs CH1 & CH2

⁵⁵ SEO L1

⁵⁶ SEO M2

⁵⁷ SEO M1

⁵⁸ SEOs W1 & W2

⁵⁹ SEOs W1 & W2

⁶⁰ SEOs C1 & M2

⁶¹ SEOs CH1, CH2 & L1

⁶² SEOs CH1, CH2 & L1

⁶³ SEOs W1 & W2

diversity of the designated ecological sites in the estuary⁶⁴.

Uncoordinated low density greenfield development across the Environs would be likely to significantly fragment ecological connectivity and would impact upon non-designated biodiversity and flora and fauna⁶⁵.

- **Sustainable Land Use**

As a result of the taking up of large areas of land - especially along the coast and along some major roads - by poorly co-ordinated, low density development land for new economic development would become increasingly expensive and scarce⁶⁶.

7.6 Evaluation of Alternative Scenario 4

- **Tourism - Socio-Economic Effects**

The economic and social implications of this scenario would be significantly negative in the medium and long term - especially with regard to Westport's tourism industry.

Traffic congestion⁶⁷, poor drinking water quality⁶⁸, loss of distinctiveness⁶⁹ and poor scenery⁷⁰ would all contribute to a decline in local tourism revenues. Increasing development levies, a shortage of land and unreliable or overloaded services would make it increasingly difficult to attract and sustain new economic activities that might replace tourism.

- **Water and Waste Water**

The extent of development under this scenario would be likely to result in significant overloading of the Town's waste water treatment facility⁷¹. Efforts

to increase the size and capacity of the facility would be resisted by new residential developments in the vicinity.

The extensive, uncoordinated nature of development in the Environs would make serving developments with waste water collection infrastructure economically unviable.

The overloading of the waste water treatment facility together with discharges of waste water from individual treatment systems would result in a deterioration of water quality⁷² and would contribute to poor drinking/bathing water quality⁷³. The deterioration in water quality would reduce the ability of Westport's water bodies to meet WFD commitments⁷⁴.

Water supply would experience seasonal shortages.

- **Traffic**

Development under this scenario would occur in a piecemeal fashion and would undermine the economic viability of the provision of public transport services⁷⁵, dependency upon private transport would be likely to increase resulting in adverse impacts upon traffic levels and greenhouse gas emissions⁷⁶.

Traffic congestion would be a serious issue in the centre of the Town. Everywhere else, long delays would be common throughout the year at junctions along the relief road during peak hours.

- **Cultural Heritage and Landscape**

By adopting limited planning controls, development under this scenario would encroach upon areas which are sensitive from both a cultural and landscape perspective⁷⁷.

⁶⁴ SEOs B1 & B2

⁶⁵ SEO B3

⁶⁶ SEO S1

⁶⁷ SEO M1

⁶⁸ SEO HH1

⁶⁹ SEOs CH1 & CH2

⁷⁰ SEO L1

⁷¹ SEO M1

⁷² SEOs W1 & W2

⁷³ SEO HH1

⁷⁴ SEOs W1 & W2

⁷⁵ SEO M2

⁷⁶ SEO C1

⁷⁷ SEOs CH1, CH2 & L1

Developments upon ridgelines around the town and development along the coast would destroy the distinctiveness of the town and would result in reductions in tourism revenues. Visual effects due to developments on these high grounds would be experienced across the Town Centre and beyond⁷⁸.

important projects would be likely to be significantly restricted⁸³.

Areas of the Town centre would lose coherency of form and character thereby undermining the sense of place and belonging. There would be significant incursions into Westport House and its Demesne with new low density development significantly adversely impacting upon the Estate⁷⁹.

- **Biodiversity, Flora & Fauna and Soil**

As a result of the adoption of limited planning controls along the coast development would be more likely to encroach upon the ecologically designated Clew Bay Complex sites⁸⁰.

Significant adverse effects as a result of poor water quality⁸¹ (see below) would occur at these sites.

Extensive, uncoordinated low density greenfield development across the Environs would be likely to significantly fragment ecological connectivity and would impact upon non-designated biodiversity and flora and fauna⁸².

- **Sustainable Land Use**

Although Scenario 4 would allow for densities to be maximised and efficient use made of certain land banks in areas away from the centre of the Town, the development capacity of the Environs - at coastal areas and at other areas along existing major and minor roads - would be significantly reduced as a result of uncoordinated low density residential development. The range of locations available to future locally

⁷⁸ SEOs CH1, CH2 & L1

⁷⁹ SEOs CH1, CH2 & L1

⁸⁰ SEOs B1 & B2

⁸¹ SEOs W1 & W2

⁸² SEO B3

⁸³ SEO S1

7.7 Evaluation against SEOs

	Likely to Improve status of SEOs	Probable Conflict with status of SEOs - unlikely to be mitigated	Potential Conflict with status of SEOs - would be mitigated	Uncertain interaction with status of SEOs	Neutral Interaction with status of SEOs	No Likely interaction with status of SEOs
Alternative Scenario 1	B1 B2 B3 HH1 W1 W2 W3 M1 S1 C1 M2 CH1 CH2 L1					
Alternative Scenario 2	HH1 W1 W2 M1 S1 C1 M2		B1 B2 B3 W3 CH1 CH2 L1			
Alternative Scenario 3		B1 B2 HH1 S1 W1 W2 C1 M1 M2	B3 W3 CH1 CH2 L1			
Alternative Scenario 4		B1 B2 B3 HH1 S1 W1 W2 C1 M1 M2 L1	W3 CH1 CH2			

Table 7.3 Evaluation of Alternative Scenarios against SEOs

7.8 Evaluation Summary

Implementation of Alternative Scenario 1 would be likely to result in beneficial impacts upon the protection of various environmental components. This scenario would stabilise or reduce existing effects on the environment - resulting in a significant strategic capacity to attract and sustain both a growing tourism sector as well as other new economic activities.

Implementation of Alternative Scenario 2 would be likely to result in beneficial impacts upon the protection of a number of environmental components. Subject to compliance with normal planning and environmental standards - and higher standards of compliance in coastal, elevated and historic sites - implementation of Alternative Scenario 2 would be within the carrying capacity of the receiving environment.

The implementation of Scenario 3 would be likely to conflict with various environmental components with mitigation of the adverse effects arising from these conflicts difficult to achieve. The implementation of Scenario 3 would be likely to arouse a number of concerns from Westport's tourism sector, especially with regard to the potential the scenario has to significantly detract from the Town's distinctiveness and scenery, and the potential it has to cause traffic congestion in the summer months.

Alternative Scenario 4 would be likely to have the most adverse environmental effects out of all of the scenarios. Traffic congestion, poor drinking water quality, loss of distinctiveness and poor scenery would all contribute to a decline in local tourism revenues under this Scenario. Increasing development levies, a shortage of land and unreliable or overloaded services would make it increasingly difficult to attract and sustain new economic activities that might replace tourism.

7.9 The Adopted Development Plan

Alternative Scenario 2 (which "would be within the carrying capacity of the receiving environment") was chosen to be developed for the Draft Development Plan by the plan-making team. The Land Use Zoning Map contained in the Draft Plan which was placed on public display corresponded closely to this Scenario.

A number of Amendments were made by the Elected Members to the Land Use Zoning Map contained in the Draft Plan. Consequently, the Land Use Zoning Map that is contained in the adopted Plan corresponds more closely to Alternative Scenario 3 (which "would be likely to conflict with various environmental components with mitigation of the adverse effects arising from these conflicts difficult to achieve").

As identified in Addendum II to the Environmental Report⁸⁴, certain Proposed Amendments⁸⁵ - all of which have been adopted as part of the Plan - would be likely to result in significant cumulative adverse impacts upon:

- the sustainable consolidation of existing development within the Plan area;
- efforts to reduce car dependency and travel related greenhouse gas emissions; and,
- non-designated habitats and ecological connectivity.

If unmitigated, adverse impacts upon the following would be likely to occur:

- the Clew Bay Complex candidate Special Area of Conservation and proposed Natural Heritage Area;
- groundwater quality and the ability of the groundwater beneath the Plan area to achieve the objectives of the Water Framework Directive by 2015; and,
- archaeological heritage.

Adverse impacts upon the following would be likely to occur:

- the landscape; and,
- views of the area around the hill in the north of the Plan area to the east of the N59.

The land use zoning map which is included in the adopted Development Plan is shown on Figure 7.1.

7.10 Mitigation

Mitigation measures which have been integrated into the draft Plan are identified in Section 9 of this Report. Due to the extent of the area which is zoned for development in the Adopted Plan, the achievement of these measures will be

made more difficult in comparison to what would have been the case if the Land Use Zoning Map contained in the Draft Plan had of been adopted without the aforementioned amendments.

⁸⁴ Addendum II details the environmental consequences of Proposed Amendments to the Draft Plan. This Addendum was placed on public display with the Proposed Amendments and was considered by the Elected Members during their deliberations on the same. On adoption of the Plan, the findings of Addendum II were used in order to update this Environmental Report.

⁸⁵ Zoning Amendments 01, 02, 03, 04, 05, 06, 07, 08, 09, 12, 14, 15, 16, 18, 19, 23, 24, 25 and 29

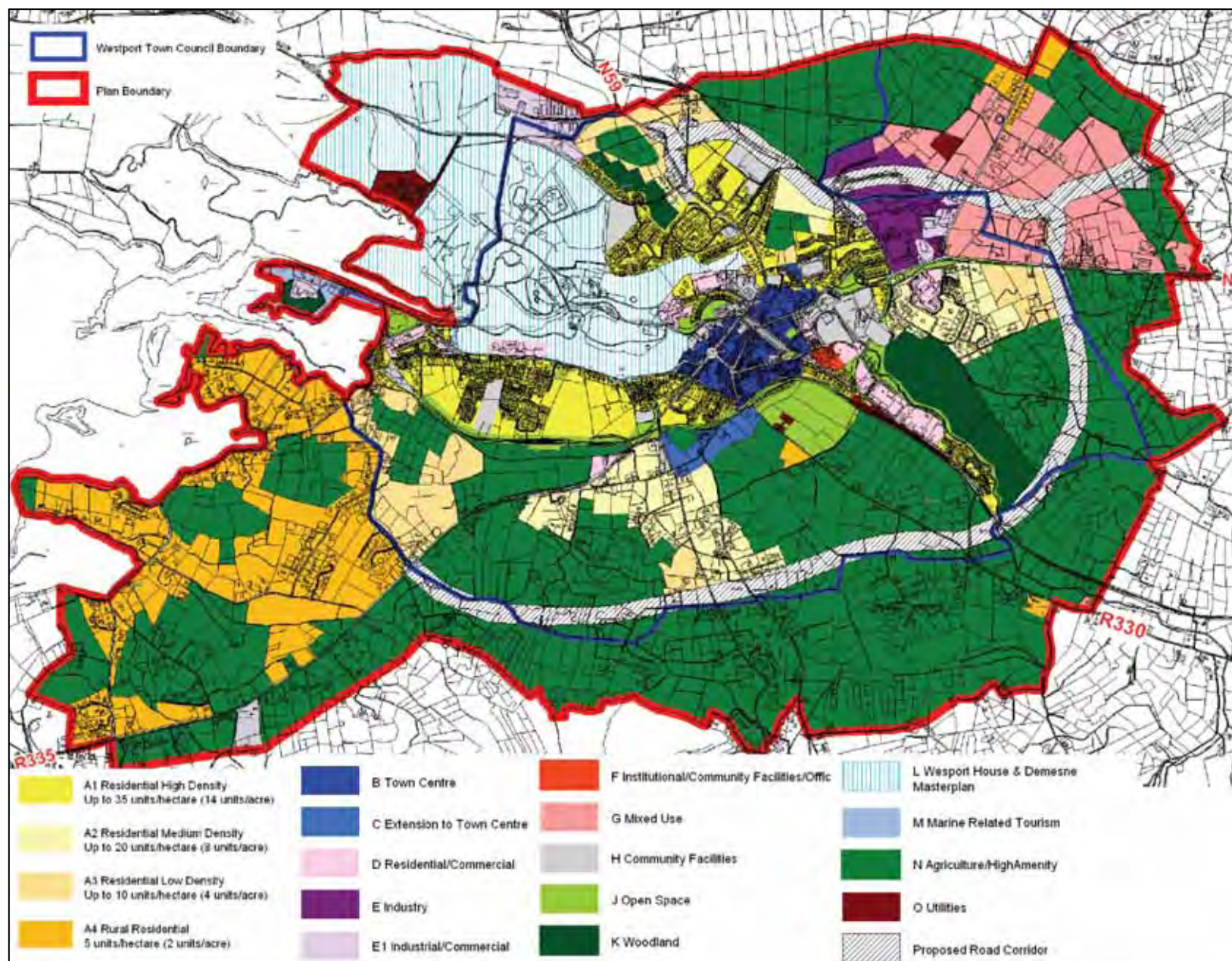


Figure 7.1 Land Use Zoning Map from the Adopted Development Plan

Section 8 Evaluation of Plan Policies and Objectives

8.1 Methodology

This section evaluates the Plan's principal objectives, settlement strategy, policies and objectives. Strategic Environmental Objectives (SEOs) are used as outlined under Section 7.2.2 in order to evaluate the relevant measures of the Development Plan. Use has been made of the environmental baseline descriptions and the maps of the individual components provided in Section 3 for this purpose.

The interactions between the SEOs and the policies and objectives of the Plan determine the effects of implementing the Plan. These effects include secondary, cumulative, synergistic, short, medium and long-term permanent and temporary, positive and negative effects. Table 8.1 brings together all the SEOs which have been developed from international, national, regional and county policies which generally govern environmental protection objectives.

SEO Code	SEO
B1	To avoid loss of relevant habitats, geological features, species or their sustaining resources in designated ecological sites
B2	To avoid significant adverse impacts, including direct, cumulative and indirect impacts, to relevant habitats, geological features, species or their sustaining resources in designated ecological sites by development within or adjacent to these sites
B3	To sustain, enhance or - where relevant - prevent the loss of ecological networks or parts thereof which provide significant connectivity between areas of local biodiversity
HH1	To protect human health from hazards or nuisances arising from exposure to incompatible landuses
S1	Maximise the sustainable re-use of brownfield lands, and maximise the use of the existing built environment rather than developing greenfield lands
W1	To maintain and improve, where possible, the quality of rivers and transitional waters
W2	To prevent pollution and contamination of ground water
W3	To prevent development on lands which pose - or are likely to pose in the future - a significant flood risk
C1	To minimise increases in travel related greenhouse emissions to air
M1	To serve new development with appropriate waste water treatment
M2	To reduce the overall proportion of car dependency within the Plan area by way of, inter alia, encouraging modal change from car to more sustainable forms of public transport and encouraging development which will not be dependent on private transport
CH1	To protect archaeological heritage - including entries to the Record of Monuments and Places and unknown archaeology - and the context of the above within the surrounding landscape where relevant
CH2	To preserve and protect the special interest and character of architectural heritage with regard to entries to the Record of Protected Structures and their context within the surrounding landscape where relevant
L1	To avoid significant adverse impacts on the landscape, especially with regard to landscapes which are most valuable and most sensitive to change and scenic views and routes which are protected under the current County Development Plan

Table 8.1 Strategic Environmental Objectives (SEOs)⁸⁶

⁸⁶ Strategic Environmental Objectives (SEOs) are methodological measures which are developed from international, national, regional and county policies which generally govern environmental protection objectives and against which the environmental effects of the Plan can be tested. The SEOs are used as standards against which the development strategies, policies and objectives of the Plan can be evaluated in order to help identify areas in which significant adverse impacts are likely to occur, if unmitigated against.

8.1.1 Note: Uncertainty of Plan Measures

With regard to Plan measures evaluated as having an uncertain interaction with the status of SEOs, the interaction, and environmental impacts, if any, which the implementation of these Plan measures would have would be determined by: the nature and extent of development arising from these Plan measures, and; site specific environmental factors. These impacts may be assessed as part of an EIA of a particular project and/or by the development management process.

Avoidance of conflict is dependent upon the development management process only granting permission for individual projects arising from these measures which do not conflict with the status of SEOs. Providing other Plan measures, including the measures recommended by this report, and measures arising out of lower tier assessments are complied with, conflicts with SEOs would be likely to be avoided.

8.2 Principal Objectives

	Likely to Improve status of SEOs	Probable Conflict with status of SEOs- unlikely to be mitigated	Potential Conflict with status of SEOs- likely to be mitigated	Uncertain interaction with status of SEOs	Neutral interaction with status of SEOs	No Likely interaction with status of SEOs
To provide a framework which will allow for a balanced and coordinated development of the plan area in the interests of the common good and the proper planning and sustainable development of the area.	S1 C1 M2		B1 B2 B3 HH1 W1 W2 W3 M1 L1			
To reinforce the existing strong urban structure and to consolidate and extend the urban core whilst protecting the unique drumlin topography of the town.	L1		CH2			
To clearly indicate the overall development strategy for the plan area including areas capable of accommodating built development, the conservation of certain areas and the provision of passive and active amenity spaces.				✓		
To provide for a mix of uses within the plan area which will increase the viability and the sustainability of residential areas and which will allow for the efficient provision of social and community infrastructure as well as the efficient use of existing services and utilities infrastructure.	S1 C1 M2		B1 B2 B3 HH1 W1 W2 W3 M1 L1			
To provide design guidelines for new development in the plan area and in particular to provide guidance on appropriate site planning, overall building form, building typologies and scale of proposed development.	CH2 L1					
To identify the requirement for new roads and other infrastructure and to indicate the routing and/or land requirements for such proposals.				✓		
To identify suitable development which utilises Roman Island as a tourism/recreational area for Westport.			B1 B2 B3 W1 L1			
To identify lands for employment and enterprise uses.						
To provide for the protection of areas of high amenity	B1 B2 B3 L1					
To control the spread of uncoordinated ribbon development in the environs of Westport in the interests of the common good and the proper planning and sustainable development of the area.	B1 B2 B3 HH1 W1 W2 C1 M1 M2 S1		CH1 CH2			

8.3 Settlement Strategy

	Likely to Improve status of SEOs	Probable Conflict with status of SEOs- unlikely to be mitigated	Potential Conflict with status of SEOs- unlikely to be mitigated	Uncertain interaction with status of SEOs	Neutral interaction with status of SEOs	No Likely interaction with status of SEOs
Direct high density sustainable residential development in town core area.	B1 B2 B3 HH1 S1 W1 W2 W3 C1 M1 M2 CH1 CH2 L1					
Permit pockets of lower density residential development or increase residential unit sizes around the town core area to attract families into town			B1 B2 B3 HH1 S1 W1 W2 W3 M1 CH1 CH2 L1	M2 C1		
Encourage the concept of sustainable neighbourhoods where appropriate.	M2 C1					
Permit lower density development outer edge of urban area at serviced locations designed in a manner that the lands can be further developed beyond the plan period, if necessary.	B1 B2 HH1 W1 W2 M1 M2 C1		B3 W3 S1 CH1 CH2 L1			
Any rural residential development shall be carried out in accordance with Mayo County Council's Rural Housing policy outlined in the Mayo County Development Plan 2008-2014.			B1 B2 B3 HH1 S1 W1 W2 W3 M1 M2 C1 CH1 CH2 L1			

8.4 Regional Role Policy

	Likely to <u>Improve</u> status of SEOs	Probable <u>Conflict</u> with status of SEOs- unlikely to be mitigated	Potential Conflict with status of SEOs- likely to be mitigated	Uncertain interaction with status of SEOs	<u>Neutral</u> interaction with status of SEOs	<u>No Likely</u> interaction with status of SEOs
RP-01 It is the policy of the Council to support Westport as a 'Key Town' and to encourage the development of the town's employment, commercial, shopping, tourism, entertainment and communications functions to the extent justified by the town's role within the West Regional Planning Guidelines and to work with all relevant agencies in order to achieve this.			B1 B2 B3 HH1 S1 W1 W2 W3 M1 M2 C1 CH1 CH2 L1			

8.5 Town Function

	Likely to <u>Improve</u> status of SEOs	Probable <u>Conflict</u> with status of SEOs- unlikely to be mitigated	Potential Conflict with status of SEOs- likely to be mitigated	Uncertain interaction with status of SEOs	<u>Neutral</u> interaction with status of SEOs	<u>No Likely</u> interaction with status of SEOs
Policy						
TFP-01 It is the policy of the Council to encourage the development of Westport as a centre of economic, social and cultural activity for the benefit of the population of both the town and it's hinterland.			B1 B2 B3 HH1 S1 W1 W2 W3 M1 M2 C1 CH1 CH2 L1			
Objectives						
TFO-01 It is an objective of the Council to promote the sustainable development and enhancement of Westport as a major tourism centre in the West of Ireland and to continue to promote the tourism sector in the town, whilst recognising that there is an interdependency between preserving the character of the landscape, heritage and tourism.			B1 B2 B3 HH1 S1 W1 W2 W3 M1 M2 C1 CH1 CH2 L1			
TFO-02 It is an objective of the Council to encourage the sustainable development of industrial and services activity which is compatible with the urban form of Westport.	CH2		B1 B2 B3 HH1 S1 W1 W2 W3 M1 M2 C1 CH1 L1			

TFO-03 It is an objective of the Council to ensure that, in order to maximise the utility of existing and future infrastructure and to promote sustainability, a 'sequential approach' shall be taken when considering development proposals	M1 M2 C1					
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8.6 Population Policy

	Likely to Improve status of SEOs	Probable Conflict with status of SEOs- unlikely to be mitigated	Potential Conflict with status of SEOs- likely to be mitigated	Uncertain interaction with status of SEOs	Neutral interaction with status of SEOs	No Likely interaction with status of SEOs
PP-01 It is the policy of the Council to plan to provide sufficient land to accommodate the residential population needs of the town and environs and, in addition, to cater for the service needs of the people who live within the town's catchment area.	B1 B2 HH1 W1 W2 M1 M2 C1		B3 W3 S1 CH1 CH2 L1			

8.7 Employment and Industry

	Likely to Improve status of SEOs	Probable Conflict with status of SEOs- unlikely to be mitigated	Potential Conflict with status of SEOs- likely to be mitigated	Uncertain interaction with status of SEOs	Neutral interaction with status of SEOs	No Likely interaction with status of SEOs
Policy						
EP-01 It is the policy of the Council to seek, through active co-operation with the relevant agencies such as Forfas, IDA Ireland, Enterprise Ireland, Science Foundation Ireland the County Enterprise Board and major local employers, to support suitable industrial and other job creation within Westport.				✓		
Objectives						
EO-01 It is an objective of the Council that the existing serviced sites for industry be promoted.	C1 M1 M2					
EO-02 It is an objective of the Council to encourage any new industrial development to locate to existing serviced sites at the IDA site at Gortaroe and to the northwest of the town at the Newport Road Industrial Park or adjacent to such sites if additional lands are required.	C1 M1 M2		CH1 B3 L1 W3			
EO-03 It is an objective of the Council to facilitate and support community-led job creation schemes as far as time and resources allow.						✓
EO-04 It is an objective of the Council to support the implementation of the Fáilte Ireland West: Regional Tourism Development Plan 2008-2010 subject to the principles of proper planning and sustainable development.	B1 B2 B3 HH1 S1 W1 W2 W3 C1 M1 M2 CH1 CH2 L1					
EO-05 It is an objective of the Council to preserve the existing industrial employment at Roman Island.						✓

8.8 Infrastructural Services

	Likely to Improve status of SEOs	Probable Conflict with status of SEOs- unlikely to be mitigated	Potential Conflict with status of SEOs- unlikely to be mitigated	Uncertain interaction with status of SEOs	Neutral interaction with status of SEOs	No Likely interaction with status of SEOs
Roads and Parking Policies						
IP-01 It is the policy of the Council, in conjunction with all statutory agencies, to assist in the provision of a high quality road network to appropriate capacity and safety standards, to cater for the economic and social development of the town.	HH1					
IP-02 It is the policy of the Council to encourage and co-operate with the statutory bodies responsible for improving the public transport facilities in the town.	C1 M2					
IP-03 It is the policy of the Council to facilitate the consolidation of the town centre as a principal shopping area by providing adequate and suitably located car parking facilities.	S1		CH1 CH2 L1			
Roads and Parking Objectives						
IO-01 It is an objective of the Council to safeguard routes for new roads which are likely to be required over the next 20 years from any development which would interfere with the design and construction of those roads.				✓		
IO-02 It is an objective of the Council to reserve lands for the provision of a southern and northern relief road over the medium to long term. The lines shown on the Map 1 are indicative only and subject to modification or alternative lines. Each proposed project/planning application within the Constraints Study Area will be considered individually in the context of the above by the National Roads Design Office.				✓		
IO-03 It is an objective of the Council to carry out road improvements along the local road serving Sandy Hill from the junction at the Ballinrobe Road to the junction at the Leenane Road.			W3			
IO-04 It is an objective of the Council to restrict development outside the 50 km/hr speed limits along the national road and strategically important regional road networks in the interests of traffic safety and to protect investment in the road network.	HH1					
IO-05 It is an objective of the Council to encourage off-street car parking.						✓
IO-06 It is an objective of the Council to facilitate the provision of new and to extend existing car parks in the town centre, where possible.			CH1 CH2 L1			
IO-07 It is an objective of the Council to facilitate for the provision of multi-storey car parks at the rear of Bridge Street/Mill Street and Mill Street/High Street.			CH1 CH2 L1			
IO-08 It is an objective of the Council to provide park and ride facilities car parking on the main approach roads to Westport in conjunction with interested parties.				✓		
IO-09 It is an objective of the Council to continue to improve pedestrian and vehicular access to the public car parks.						✓
IO-10 It is an objective of the Council to facilitate the provision of pedestrian links between James Street Car Park and Shop Street, and Mill Street Car Park and the South Mall.						✓
IO-11 It is an objective of the Council to improve and provide pedestrian links from the environs of Westport into the town centre.	C1 M2					
IO-12 It is an objective of the Council to provide cycle lanes and additional bicycle parking at locations identified on Map 2.	C1 M2					
IO-13 It is an objective of the Council that developments will provide adequate on-site car parking to the standards laid out in this Development Plan. Where the developer is unable to provide such car parking spaces, the developer shall pay a contribution to the Council towards the provision of car parking for the area.				✓		
IO-14 It is an objective of the Council to implement the recommendations set out in the Westport Transport Study as carried out by TPI and to continue to monitor traffic movements within the town.				✓		

IO-15	It is an objective of the Council to require Traffic and Transportation Assessments and Road Safety Audits as set out in Section 6 Roadside Development.	C1 HH1	M2					
Water and Sewerage Policy								
IP-04	It is the policy of Mayo County Council, as the Water Services Authority, to provide water services in a sustainable manner in accordance with all national and EU legislation. The Council shall take cognisance of relevant legislation, including the following: <ul style="list-style-type: none"> European Union Water Framework Directive 2000 Urban Waste Water Treatment Regulations 2001 European Communities (Drinking Water) (No. 2) Regulations 2007 European Communities (Quality of Shellfish Waters) Regulations 2006 	B1 W1 M1	B2 W2	HH1				
Water and Sewerage Objectives								
IO-16	It is an objective of Mayo County Council (the Council) to provide water and sewerage infrastructure throughout the county for domestic, industrial, agricultural and other uses and to implement the planned programme of works.	B1 W1 M1	B2 W2	HH1				
IO-17	It is an objective of the Council to advance the Water Services Investment Programme 2007-2009.	B1 W1 M1	B2 W2	HH1				
IO-18	It is an objective of the Council to require that septic tanks, proprietary effluent treatment systems and percolation areas be located and constructed in accordance with NSAI SR6 1991 or the revised EPA manual when approved.	B1 W1 M1	B2 W2	HH1				
IO-19	It is an objective of the Council to encourage all existing developments to connect to the public sewer where available.	B1 W1 M1	B2 W2	HH1				
Water Policy								
IP-05	It is the policy of Mayo County Council, as the Water Services Authority, to ensure that an adequate supply of water is available to meet the current and future needs of Westport Town & environs.	HH1						
Water Objectives								
IO-20	It is an objective of the Council to ensure high water quality standards are maintained in implementing the relevant European Community Water Quality Directives and Regulations.	B1 W1 M1	B2 W2	HH1				
IO-21	It is an objective of the Council to ensure that all drinking water in the area complies in full with the EU Drinking Water Directive 98/83/EC.	HH1						
IO-22	It is an objective of the Council to implement the recommendations of the Water Conservation Project with regard to eliminating water wastage.							✓
IO-23	It is an objective of the Council to promote water conservation and responsible use of the resource.							✓
IO-24	It is an objective of the Council to eliminate the wastage of water through waste-water detection and enforcement of repairs.							✓
IO-25	It is an objective of the Council to replace deficient sections of pipework where necessary.							✓
Flooding Policy								
IP-06	It is the policy of the Council to comply with the EU Floods Directive 2007/60/EC and the County Development Plan 2008-2014.	HH1	W3					
Flooding Objective								
IO-26	It is an objective of the Council to require Flood Risk Assessments for areas identified as at risk of flooding.	W3						
Waste Management Policy								
IP-07	It is the policy of the Council to implement the Waste Management Plan.							✓

Waste Management Objective						
IO-27 It is an objective of the Council to have regard to the Best Practice Guidelines on the Preparation of Waste Management Plans for Construction and Demolition Projects (July 2006)						✓

8.9 Housing

	Likely to Improve status of SEOs	Probable Conflict with status of SEOs- unlikely to be mitigated	Potential Conflict with status of SEOs- likely to be mitigated	Uncertain interaction with status of SEOs	Neutral interaction with status of SEOs	No Likely interaction with status of SEOs
Housing Policy						
HP-01 It is the policy of the Council to continue with the provision of Local Authority Housing where it has been established that the need for such housing exists. The assessment of the need for such houses shall be kept under continuous review.			B1 B2 B3 HH1 S1 W1 W2 W3 C1 M1 M2 CH1 CH2 L1			
HP-02 It is the policy of the Council to co-operate with private developers, to meet the new housing needs generated by the town's growth and in accordance with Part V of the Planning & Development Acts, the Department of the Environment Heritage and Local Government's Plan for Social Housing, and the Mayo Housing Strategy 2008.			B1 B2 B3 HH1 S1 W1 W2 W3 C1 M1 M2 CH1 CH2 L1			
HP-03 It is the policy of the Council to have regard to the Department of Environment, Heritage and Local Government Residential Density Guidelines and any subsequent guidelines.	C1 M2 S1		B1 B2 B3 HH1 W1 W2 W3 M1 CH1 CH2 L1			
HP-04 It is the policy of the Council to review from time to time the housing needs of the Traveller community regularly based in Westport, and in accordance with The Traveller Accommodation Plan adopted by Mayo County Council.			B1 B2 B3 HH1 W1 W2 W3 M1 CH1 CH2 L1			
Housing Objectives						
HO-01 It is an objective of the Council to implement the settlement strategy as outlined in Section 3.	M2 C1		B1 B2 B3 HH1 S1 W1 W2 W3 M1 CH1 CH2 L1			
HO-02 It is an objective of the Council to protect, improve and develop residential areas and to provide for facilities and amenities incidental to those residential areas.				✓		
HO-03 It is an objective of the Council to prevent the spread of urban sprawl and ribbon development into the countryside surrounding Westport with emphasis on control of ribbon development along main approaches to Westport.	B3 S1 CH1 C1 M2 L1					

HO-04	It is an objective of the Council to control multiple housing developments outside defined development areas.	B1 B2 B3 W1 W2 S1 CH1 C1 M1 M2 L1					
HO-05	It is an objective of the Council to review from time to time the zoning needs of the town and environs area and to release lands in the environs area in a phased manner where it can be demonstrated to the Council that lands closer to the town centre are unavailable.				✓		
HO-06	It is an objective of the Council to control one-off housing development in accordance with Mayo County Council's Rural Housing Policy as outlined in the County Development Plan 2008 -2014.			B1 B2 B3 HH1 S1 W1 W2 W3 M1 M2 C1 CH1 CH2 L1			
HO-07	It is an objective of the Council to provide housing in a central location for the elderly and disabled where there is an established need.	C1 M2 S1					
HO-08	It is an objective of the Council to facilitate the provision of tourist accommodation such as Hotels, Holiday Homes and Hostels within Westport, subject to compatibility with the urban form and socio-economic character of Westport.	CH1 CH2 L1					
HO-09	It is an objective of the Council to provide a Halting Site for the travelling community regularly based in Westport, should the need arise.				✓		

8.10 Retail

	Likely to Improve status of SEOs	Probable Conflict with status of SEOs- unlikely to be mitigated	Potential Conflict with status of SEOs- likely to be mitigated	Uncertain interaction with status of SEOs	Neutral interaction with status of SEOs	No Likely interaction with status of SEOs
Retail Policy						
RP-01 It is the policy of the Council to stimulate business and commercial activity in the town centre.				✓		
Retail Objectives						
RO-01 It is an objective of the Council to comply with to the DoEHLG Retail Planning Guidelines and the Mayo County Council Retail Strategy 2008 in considering proposals for large scale retail development.			C1 M2			
RO-02 It is an objective of the Council to encourage new retail development to locate in the town centre by applying a sequential test in the location of such developments	C1 M2 S1		CH1 CH2			
RO-03 It is an objective of the Council to facilitate for the provision of a covered market place at a suitable location in the town centre.	C1 M2 S1					
RO-04 It is an objective of the Council to promote the efficient operation of commercial undertakings in the town by facilitating access and car parking to them and consolidating the town centre.	C1 M2 S1					

8.11 Education

	Likely to Improve status of SEOs	Probable Conflict with status of SEOs- unlikely to be mitigated	Potential Conflict with status of SEOs- likely to be mitigated	Uncertain interaction with status of SEOs	Neutral interaction with status of SEOs	No Likely interaction with status of SEOs
Policy						
EDP-01 It is the policy of the Council to co-operate with the Department of Education and Science in developing additional education facilities as are necessary, to replace obsolete or overcrowded facilities or to meet increased demand.				✓		
Objective						
EDO-01 It is an objective of the Council to support the construction of new primary schools as required in Westport town.				✓		

8.12 Community Facilities

	Likely to Improve status of SEOs	Probable Conflict with status of SEOs- unlikely to be mitigated	Potential Conflict with status of SEOs- likely to be mitigated	Uncertain interaction with status of SEOs	Neutral interaction with status of SEOs	No Likely interaction with status of SEOs
Policy						
CFP-01 It is the policy of the Council to consolidate the existing community facilities in Westport and to co-operate with the Statutory Bodies responsible for the provision of community services.						✓
Objectives						
CFO-01 It is an objective the Council to develop lands at Cloonamad for a community and recreation facility.	C1 M2		B3 L1			
CFO-02 It is an objective of the Council to ensure that new community facilities provide adequate off-street car parking.						✓
CFO-03 It is an objective of the Council to ensure that the amenities of neighbouring properties are safeguarded in the provision of community facilities.	CH2 L1					
CFO-04 It is an objective of the Council to encourage the refurbishment of the Town Hall as a theatre and centre for cultural and community use.				CH2		
CFO-05 It is an objective of the Council to provide new Civic Offices at the Convent site and to encourage other additional community facilities, commercial and residential uses at this location.	S1 M2 C1					
CFO-06 It is an objective of the Council that all public facilities and places of public resort shall provide safe and easy access for the disabled.	HH1					
CFO-07 It is an objective of the Council to provide for allotments in the Town Council area, subject to demand and logistics.	B3 M2					

8.13 Open Space and Recreational Facilities

	Likely to Improve status of SEOs	Probable Conflict with status of SEOs- unlikely to be mitigated	Potential Conflict with status of SEOs- likely to be mitigated	Uncertain interaction with status of SEOs	Neutral interaction with status of SEOs	No Likely interaction with status of SEOs
Policy						
OP-01 It is the policy of the Council to maintain, develop and extend the open spaces provision of the town and to provide new areas of open space to satisfy existing and projected demands.	B3 L1					
OP-02 It is the policy of the Council to continue to facilitate the provision of social and sporting activities as the need arises.						✓
Objectives						
OO-01 It is an objective of the Council to ensure that local open space at suitable standards is provided by developers of new residential areas. In addition no development, other than that for amenity purposes associated with an existing residential development, will be permitted on open spaces that are part of an existing residential development.	B3					
OO-02 It is an objective of the Council to encourage the improvement of the visual appearance of the approach roads to the town.	L1					
OO-03 It is an objective of the Council to rationalise unused incidental open spaces, subject to compliance with OO-01 above, throughout the town.	S1					
OO-04 It is an objective of the Council to ensure that social, cultural and sporting activities provide adequate off-street car parking.						✓
OO-05 It is an objective of the Council to ensure that the amenities of neighbouring properties are safeguarded in the provision of open space and recreational facilities.	CH2 L1					
OO-06 It is an objective of the Council to encourage, and provide for marine related community, sport, tourism and leisure facilities and to provide public access to the waters edge at Roman Island.			B1 B2 B3 W1 W3 S1 L1			
OO-07 It is an objective of the Council to create a bathing area at Roman Island with associated facilities.	W1		B1 B2 W3			
OO-08 It is an objective of the Council, subject to conformance with the requirements of the Habitats Directive, to support the implementation of 'The Development of Marine Leisure Facilities at Westport Report Jan 2005', including the creation of a lagoon south of Roman Island for marine recreational purposes.			B1 B2 B3 W1 W3 S1 L1			
OO-09 It is an objective of the Council to create a public park at lands adjoining the West Road, Leenane Road and the old railway line.	B3					
OO-10 It is an objective of the Council to encourage the provision of open space with appropriate planting at the reservoir and surrounding lands at Sandyhill.	B3 W3					
OO-11 It is an objective of the Council to identify a suitable location for the provision of a skateboard park and other suitable youth recreational facilities.				✓		
OO-12 It is an objective of the Council to develop pedestrian walkways and cycleways in accordance with Map 2. Any new developments along these routes shall be required to provide links to these ways.	C1 M2					
OO-13 It is an objective of the Council to continue to implement a programme for the development, planting, etc., and regular maintenance of suitable areas of open space.	B3					
OO-14 It is an objective of the Council to protect the amenity value of the Railway Line Walk.	B3 L1					

8.14 Townscape and Conservation of the Built Environment

	Likely to Improve status of SEOs	Probable Conflict with status of SEOs- unlikely to be mitigated	Potential Conflict with status of SEOs- likely to be mitigated	Uncertain interaction with status of SEOs	Neutral interaction with status of SEOs	No Likely interaction with status of SEOs
Policy						
TP-01 It is the policy of the Council to maintain, conserve and protect the architectural quality, character and scale of the town.	CH2		S1			
Objectives						
TO-01 It is an objective of the Council to protect the town centre by ensuring all new development is compatible with the existing character and visual amenity of Westport.	CH1 CH2 L1		S1			
TO-02 It is an objective of the Council to designate the town centre as an Architectural Conservation Area as defined on Map 3. New developments shall support the architectural integrity, quality and character of such areas.	CH2		S1			
TO-03 It is an objective of the Council to protect the protected structures and their settings on the Record of Protected Structures and to review the Record of Protected Structures from time to time as the need arises.	CH2		S1			
TO-04 It is an objective of the Council to preserve the form and character of the protected structures by ensuring that any proposed sub-division of protected structures for multiple residential units does not impair the character of the protected structure.	CH2		S1			
TO-05 It is an objective of the Council to ensure that any alterations or interventions to protected structures shall be executed to a high conservation standard in order to protect their significance or value. Any applications for development of protected structures shall be accompanied by an assessment carried out in accordance with the Councils requirements by an accredited conservation architect.	CH2		S1			
TO-06 It is an objective of the Council to reuse existing limestone kerbing/paving in any upgrading works undertaken in the streets of Westport and the Quay area.	CH2					
TO-07 It is an objective of the Council to protect the integrity, quality and context of Recorded Monuments listed in the Appendix.	CH2		S1			
TO-08 It is an objective of the Council to develop a Heritage Trail in Westport.						✓
TO-09 It is an objective of the Council to encourage residential uses on the upper floors of town centre commercial properties, where appropriate, and to encourage the retention of residential use along the North Mall and South Mall except where an alternative use has been established, to maintain and enhance the overall vitality of the town centre area.	C1 M2					
TO-10 It is an objective of the Council to encourage the re-development of Distillery Road and backlands, with streetscape design reflecting that of the character of the existing town centre.	C1 M2 S1		CH1 CH2			
TO-11 It is an objective of the Council to encourage suitable town centre development in the Bank of Ireland gardens which will include a town centre civic space and a public river walkway.	C1 M2 S1		CH1 CH2			
TO-12 It is an objective of the Council to encourage a high standard of architectural design and layout in all developments.	CH2					
TO-13 It is an objective of the Council to have regard to An Foras Forbartha Design Guide for shopfronts and signs and to encourage the use of traditional shopfront designs and materials and signs.	CH2					
TO-14 It is an objective of the Council to prohibit the use of plastic and neon lit shop signs within the town core and at other locations where the planning authority deem them unsuitable.	CH2					
TO-15 It is an objective of the Council to continue to improve street furniture, paving and planting etc. throughout the town.				✓		
TO-16 It is an objective of the Council to have all E.S.B. and Telecom Éireann cables underground in the town. Underground cabling shall also be encouraged in the environs area.	CH2 L1		CH1			

TO-17 It is an objective of the Council to prepare and implement design guidelines for development within the Town Council Area.						
TO-18 It is an objective of the Council that any development on Horkan's Hill is subject to a visual impact assessment to ensure that it does not detract from any of the approach roads to the town.	L1					
TO-19 It is an objective of the Council that Colonel's Wood be zoned 'K Woodland' and any development at Colonel's Wood would be subject to a design brief agreed by the elected members, and following a period of public consultation, the design brief would be brought before the Council for final agreement. If ratified, a binding agreement would be entered into with Coillte.				✓		
Westport House & Demesne						
WHO-01 It is an objective of the Council to protect the natural and built environment and cultural heritage of Westport House and Demesne, permitting appropriate development to ensure the preservation, conservation and future of the estate, subject to the preparation of a Masterplan, to be approved by the planning authority, for the area outlined on Map 1. Emphasis shall be placed on preserving and reinforcing the historic core of the estate, planned management of the Demesne woodlands, enhancement of links between the House and the town, and retaining the vistas to and from the House.	CH1 CH2 L1			✓		

8.15 Obsolescence/Derelict Sites

	Likely to Improve status of SEOs	Probable Conflict with status of SEOs- unlikely to be mitigated	Potential Conflict with status of SEOs- likely to be mitigated	Uncertain interaction with status of SEOs	Neutral interaction with status of SEOs	No Likely interaction with status of SEOs
Policy						
ODP-01 It is the policy of the Council to identify and secure the development and renewal of obsolete areas and derelict sites and buildings, to develop and improve them in a manner appropriate to the area.	S1 C1 M2		CH1 CH2 L1			
Objectives						
ODO-01 It is an objective of the Council to implement the provisions of Derelict Sites legislation.	S1 C1 M2		CH1 CH2 L1			
ODO-02 It is an objective of the Council to develop or to facilitate the development of the backlands, where appropriate, and obsolete areas by way of design advice within the town centre.	S1 C1 M2		CH1 CH2 L1			

8.16 Environment

	Likely to <u>Improve</u> status of SEOs	Probable <u>Conflict</u> with status of SEOs- unlikely to be mitigated	Potential <u>Conflict</u> with status of SEOs- likely to be mitigated	Uncertain interaction with status of SEOs	<u>Neutral</u> interaction with status of SEOs	<u>No Likely</u> interaction with status of SEOs
General Objective						
ENO-01 It is an objective of the Council to ensure that any projects or plans arising from this plan that, alone or in conjunction with other plans and projects, are likely to have significant effects on a Natura 2000 site (Clew Bay Complex) are screened for the need to undertake Appropriate Assessment under Article 6 of the Habitats Directive.	B1 B2					
ENO-02 It is an objective of the Council to ensure that all Natura 2000 sites are protected from significant adverse direct, indirect or secondary impacts arising from the scale, land take, proximity, resource requirements, emissions (disposal to land, water or air), transportation requirements, duration of construction, operation, decommissioning or any other effect of any development.	B1 B2					
Landscapes and Natural Environment Policy						
LP-01 It is the policy of the Council to protect sensitive landscapes, including elevated lands, from development.	L1					
Landscapes and Natural Environment Objectives						
LO-01 It is an objective of the Council to preserve the Views and Prospects listed in Appendix 2 and Map 2 and to ensure they are protected from development which would interfere with such Views and Prospects.	L1					
LO-02 It is an objective of the Council to require that significant development proposals shall be accompanied by a visual impact assessment demonstrating that landscape impacts have been anticipated and avoided to a level consistent with the sensitivity of the landscape.	L1					
LO-03 It is an objective of the Council to protect the features of the natural environment including existing ecological corridors (rivers, streams, hedgerows, trees, wooded areas and scrub), Special Areas of Conservation, and Natural Heritage Areas. All proposals for development shall be required to identify all ecological corridors, assess the impact of the proposal on these and set out detailed mitigation measures to offset any negative impact.	B1 B2 B3 L1 W1					
LO-04 It is an objective of the Council to implement the key recommendations of the County Mayo Heritage Plan 2006-2011.	B3 L1					
LO-05 It is an objective of the Council to preserve the Woods, Trees and Groups of Trees listed in Appendix X	B3 L1					
LO-06 It is an objective of the Council to make Tree Preservation Orders under Section 205 of the Planning & Development Acts 2000-2007.	B3 L1					
LO-07 It is an objective of the Council to encourage the rejuvenation of areas of Woodland through the appropriate management measures and replanting.	B3 L1					
LO-08 It is an objective of the Council to continue to plant trees in Westport.	B3 L1					
LO-09 It is an objective of the Council to support the Western Regional Fisheries Board in their carrying out a feasibility study for the potential to re-introduce salmon into the Carrowbeg River taking into account the provisions of the EU Water framework Directive and the EU Habitats Directive.						✓
LO-10 It is an objective of the Council to protect the water quality and amenity value of the Carrowbeg River.	B1 B2 B3 HH1 W1 W2 M1 L1					
LO-11 It is an objective of the Council to protect the Clew Bay Complex SAC (Natura 2000 site).	B1 B2 B3 HH1 W1 W2 M1 L1					

Water Quality Policy						
WP-01 It is the policy of the Councils to implement the provisions of Water Pollution legislation, to prevent the discharge of pollutants to public sewers, watercourses and the Carrowbeg River.	B1 B2 B3 HH1 W1 W2 M1					
Water Quality Objectives						
WO-01 It is an objective of the Council, through implementation of the EU Water Framework Directive, the Western River Basin Management Project and other associated legislation, to ensure the protection and improvement of all drinking water, surface water, ground waters, coastal and estuarine water in the county.	B1 B2 B3 HH1 W1 W2 W3 M1					
WO-02 It is an objective of the Council to work in co-operation and partnership with all major stakeholders to ensure a co-ordinated approach to the protection and enhancement of the area's water resources.	B1 B2 B3 HH1 W1 W2 W3 M1					
WO-03 It is an objective of the Council to prevent pollution of existing watercourses and Clew Bay by the continuing maintenance of the Westport Main Drainage Sewerage Network and Waste Water Treatment Plant. In addition the public wastewater collection and treatment infrastructure shall be operational and with adequate capacity to accommodate waste water arising from developments prior to developments being occupied.	B1 B2 B3 HH1 W1 W2 W3 M1					
WO-04 It is an objective of the Council to manage surface water systems in a sustainable manner and to require that new developments to integrate adequate and appropriate Sustainable Urban Drainage Systems (SUDS), designed in accordance with 'Dublin Corporation Stormwater Management Policy for Developers'.	B1 B2 B3 HH1 W1 W3 M1					
WO-05 It is an objective the Council to integrate the relevant policies and objectives of the Western River Basin Management Plan and associated Programme of Measures where required.	B1 B2 B3 HH1 W1 W3 M1					
WO-06 It is an objective of the Council to ensure that development shall be undertaken in such a way so as not to compromise the quality of surface water (and associated habitats and species) and groundwater within the zones of influence of the plan area.	B1 B2 B3 HH1 W1 W2 M1					
WO-07 It is an objective of the Council to require that ground and surface waters are protected during construction and operation of developments by requiring developers/operators to adhere to best practice in design, installation and management of systems for the interception, collection and appropriate disposal or treatment of all surface waters and effluent.	B1 B2 B3 HH1 W1 W2 M1					
WO-08 The Council will implement the relevant recommendations set out in Urban Waste Water Discharges in Ireland for Population Equivalents Greater than 500 Persons – A Report for the Years 2004 and 2005 (Office of Environmental Enforcement EPA 2007)	B1 B2 B3 HH1 W1 W2 M1					
Air Quality Policy						
AP-01 It is the policy of the Council to implement the provisions of the Air Pollution legislation, to prevent and abate injury to amenity or health hazard resulting from the emission of pollutants into the atmosphere from whatever source.	HH1					
Energy Conservation Objective						
ECO-01 It is an objective of the Council to promote energy conservation measure and the use of renewable energy systems in new developments.						

8.17 Land Use

	Likely to <u>Improve</u> status of SEOs	Probable <u>Conflict</u> with status of SEOs- unlikely to be mitigated	Potential <u>Conflict</u> with status of SEOs- likely to be mitigated	Uncertain interaction with status of SEOs	<u>Neutral</u> interaction with status of SEOs	<u>No Likely</u> interaction with status of SEOs
Policy						
LUP-01 It is the policy of the Council to rationalise land use patterns in the town.	S1		CH1 CH2 L1			
Objectives						
LUO-01 It is an objective of the Council to facilitate development of acceptable uses through appropriate land use zoning objectives.				✓		
LUO-02 It is an objective of the Council to ensure that all proposed development is absorbed into the surrounding landscape so that it does impinge in any significant way upon the character, integrity or uniformity of the landscape, in order to protect the landscape, regardless of its zoning.	L1					
LUO-03 It is an objective of the Council that uses, other than the primary use for which an area is zoned, may be permitted provided they do not conflict with the primary use zoning and/or matrix table set out in Section 5.				✓		
LUO-04 It is an objective of the Council to implement the Development Strategy as outlined in Section 3 of this plan.	M2 C1		B1 B2 B3 HH1 S1 W1 W2 W3 M1 CH1 CH2 L1			

8.18 Major Accidents Directive

	Likely to <u>Improve</u> status of SEOs	Probable <u>Conflict</u> with status of SEOs- unlikely to be mitigated	Potential <u>Conflict</u> with status of SEOs- likely to be mitigated	Uncertain interaction with status of SEOs	<u>Neutral</u> interaction with status of SEOs	<u>No Likely</u> interaction with status of SEOs
Policy						
MAP-01 It is a policy of the Council to control, having regard to the provisions of the Major Accidents Directive and any regulations under any enactment giving effect to that Directive, of the siting of new establishments, the modification of existing establishments and the development in the vicinity of such establishments for the purposes of reducing the risk, or limiting the consequences, of a major accident.	HH1					
Objectives						
MAO-01 It is an objective of the Council to liaise with the Health and Safety Authority with regard to proposals for the siting or modification of an establishment covered by the Major Accidents Directive, and require such developments to comply with standards set out in Section 6 of this plan.	HH1					

8.19 Development Contributions

	Likely to <u>Improve</u> status of SEOs	Probable <u>Conflict</u> with status of SEOs- unlikely to be mitigated	Potential Conflict with status of SEOs- likely to be mitigated	Uncertain interaction with status of SEOs	<u>Neutral</u> interaction with status of SEOs	<u>No Likely</u> interaction with status of SEOs
Objective						
DCO-01 It is an objective of the Council to apply the Development Contributions Scheme too all new developments or developments requiring retention.						✓

Section 9 Mitigation Measures

9.1 Introduction

Mitigation measures are measures envisaged to prevent, reduce and, as fully as possible, offset any significant adverse impacts on the environment due to implementation of the Development Plan.

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

The mitigation measures may be incorporated into the briefing of design teams as well as the subsequent design, specification and development management of the landuses to be accommodated on the Development Plan lands.

Additional more detailed mitigation measures to those detailed below and those integrated into the Development Plan would be likely to be required by the development management and EIA processes of individual projects.

9.2 Mitigation through Consideration of Alternatives

A range of potential alternative scenarios for the Draft Plan were identified at an early stage in the process and evaluated for their likely significant environmental effects (see Sections 6 and 7).

The environmental baseline and the Strategic Environmental Objectives (see Sections 3 and 4) were used in order to predict and evaluate the environmental effects of implementing the alternatives.

Communication of the findings of this evaluation enabled 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 this report enabled them to make an informed choice with regard to the making of the Development Plan.

9.3 Individual Mitigation Measures integrated into the Plan

The following sub-sections identify how individual mitigation measures have been integrated into the Plan.

The reference codes are those which accompany the relevant measures in Section 8 of this report and in the Plan.

9.4 Mitigation Measures

9.4.1 Biodiversity and Flora and Fauna

No projects giving rise to significant adverse direct, indirect or secondary impacts on Natura 2000 sites arising from their size or scale, land take, proximity, resource requirements, emissions (disposal to land, water or air), transportation requirements, duration of construction, operation, decommissioning or from any other effects shall be permitted on the basis of this Plan (either individually or in combination with other plans or projects)⁸⁷.

Integrated through ENO-01 and ENO-02.

⁸⁷ Except as provided for in Section 6(4) of the Habitats Directive, viz. There must be:
(a) no alternative solution available,
(b) imperative reasons of overriding public interest for the plan to proceed; and
(c) adequate compensatory measures in place.

All projects arising from this Plan will be screened for the need to undertake Appropriate Assessment under Article 6 of the Habitats Directive.

Integrated through ENO-01.

The Council shall ensure the protection of existing ecological corridors including rivers, streams, hedgerows, trees, wooded areas, scrub and traditional stone walls. All proposals for development shall be required to identify all ecological corridors, assess the impact of the proposal on these and set out detailed mitigation measures to offset any negative impact.

Integrated through LO-03.

9.4.2 Water Protection

When published, the relevant policies and objectives of the Western River Basin Management Plan and associated Programme of Measures shall be integrated into the Plan through amendment or otherwise.

Integrated through WO-05.

Developments provided for by the Plan shall be undertaken in such a way so as not to compromise the quality of surface water (and associated habitats and species) and groundwater within the zones of influence of the Plan area.

Integrated through WO-06.

Landuses shall not give rise to the pollution of ground or surface waters during the construction or operation of developments. This shall be achieved through the adherence to best practice in the design, installation and management of systems for the interception, collection and appropriate disposal or treatment of all surface waters and effluents.

Integrated through WO-07.

9.4.3 Waste Water

Public wastewater collection and treatment infrastructure - which fully complies with requirements of the Urban Waste Water Treatment Directive (Council Directive 91/271/EEC of 21 May 1991 concerning urban waste-water treatment) (amended by Directive

98/15/EEC) including the need to provide secondary treatment - shall be operational and with adequate capacity to accommodate waste water arising from the development, prior to developments being occupied. Discharges arising from this collection and treatment shall also comply with the requirements of the Directive.

Integrated through IP-04, IO-16 and IO-17.

The Councils will implement the relevant recommendations set out in *Urban Waste Water Discharges in Ireland for Population Equivalents Greater than 500 Persons – A Report for the Years 2004 and 2005* (Office of Environment Enforcement - EPA, 2007).

Integrated through WO-08.

The feasibility of connecting of unsewered, areas including individual properties/ premises, serviced by septic tanks to existing and planned sewer networks shall be examined.

Integrated through IO-19.

9.4.4 Drinking Water

Conformity with the relevant recommendations set out in *The Provision and Quality of Drinking Water in Ireland – A Report for the Years 2006-2007* (Office of Environment Enforcement- EPA, 2007) shall be achieved.

Integrated through IO-21 and IP-05.

Existing and new populations under the Plan shall be served with clean and wholesome drinking water.

Integrated through IO-21 and IP-05.

Compliance shall be achieved with the 48 parameters set out under the European Communities (Drinking Water) Regulations (No. 2) 2007.

Integrated through IO-21 and IP-05.

The Council will achieve compliance with the 48 parameters set out under the European Communities (Drinking Water) Regulations (No. 2) 2007.

Integrated through IO-21 and IP-05.

The Council will resolve any outstanding issues in order to achieve the removal of the Westport public water supply from the EPA remedial action list of public water supplies.

Integrated through IO-21 and IP-05.

9.4.5 Flooding

Development in areas at risk of flooding, particularly floodplains, shall be avoided by not permitting development in flood risk areas unless: it is fully justified that there are wider sustainability grounds for appropriate development; unless the flood risk can be managed to an acceptable level without increasing flood risk elsewhere; and, where possible, it reduces flood risk overall.

Integrated through IO-26, IP-07 and Development Management text contained in Section 7.8 Flood Prevention and Surface Water Management.

A sequential approach to flood risk management based on avoidance, reduction and then mitigation of flood risk as the overall framework for assessing the location of new development in the development planning processes shall be adopted.

Integrated through IO-26, IP-07 and Development Management text contained in Section 7.8 Flood Prevention and Surface Water Management.

Flood risk assessments shall accompany planning applications and these assessments shall be incorporated into the process of making decisions on planning applications and planning appeals.

Integrated through IO-26.

In areas where the probability of flooding is highest (greater than 1% or 1 in 100 for river flooding or 0.5% or 1 in 200 for coastal flooding) - referred to as Zone A in the DEHLG draft Planning Guidelines on the Planning System and Flood Risk Management (referred to hereafter in this section as 'the Guidelines') - and where a wide range of receptors would be vulnerable, development in this zone should be avoided and/or only considered in exceptional circumstances (through the Justification Test as outlined in the Guidelines) if adequate land or

sites are not available in Zones B or C below. Most types of development would be considered inappropriate in this zone. Only water-compatible development, such as docks and marinas, dockside activities that require a waterside location, amenity open space, outdoor sports and recreation and essential transport infrastructure that cannot be located elsewhere, would be considered appropriate in this zone. In areas where the probability of flooding is moderate (between 0.1% or 1 in 1000 and 1% or 1 in 100 for river flooding and between 0.1% or 1 in 1000 year and 0.5% or 1 in 200 for coastal flooding) - referred to as Zone B in the Guidelines - development should only be considered in this zone if adequate land or sites are not available in Zone C or if development in this zone would pass the Justification Test (through the Justification Test as outlined in the Guidelines). Highly vulnerable development, such as hospitals, residential care homes, Garda, fire and ambulance stations, dwelling houses and primary strategic transport and utilities infrastructure, would be considered inappropriate in this zone. Less vulnerable development, such as retail, commercial and industrial uses, sites used for short-let for caravans and camping and secondary strategic transport and utilities infrastructure, and water-compatible development might be considered appropriate in this zone. In areas where the probability of flooding is low (less than 0.1% or 1 in 1000 for both river and coastal flooding) - referred to as Zone C in the Guidelines - development in this zone is appropriate from a flooding perspective (subject to assessment of flood hazard from sources other than rivers and the coast) but would need to meet the normal range of other proper planning and sustainable development considerations.

Integrated through IO-26, IP-07 and Development Management text contained in Section 7.8 Flood Prevention and Surface Water Management.

9.4.6 Cultural Heritage

Landuses shall not give rise to significant losses of the integrity, quality or context of archaeological material - except as may be conditioned or directed by the appropriate heritage agencies. This shall be achieved by the application of appropriate design standards and criteria.

Integrated partially through TO-07.

New developments shall not result in any significant loss in the architectural integrity, quality or character of the area, where appropriate. Planning applications may be required to be accompanied by an assessment undertaken by an accredited conservation architect, where appropriate, detailing the impacts of the relevant development upon the special interest and character of the surrounding architectural heritage. The Council shall be consulted at an early stage in this regard in order to determine whether there is a need for such an assessment or for specific mitigation measures.

Integrated through TP-01, TO-01, TO-02, TO-04 and TO-05.

In order to protect, strengthen and improve the presentation and the general character of Westport and its Environs, alterations and interventions to Protected Structures shall be executed to the highest conservation standards, and shall not detract from their significance or value.

Integrated through TP-01, TO-01, TO-02, TO-04 and TO-05.

The Record of Protected Structures shall be extended on a phased basis, as appropriate, in order to incorporate any recommendations from the National Inventory of Architectural Heritage.

Integrated through TO-03.

9.4.7 Landscape

Development proposals shall be accompanied by a visual impact assessment demonstrating that landscape impacts have been anticipated and avoided to a level consistent with the sensitivity of the landscape.

Integrated through TO-18 and LO-02.

9.4.8 Air and Climatic Factors

The Council shall protect air quality in the Westport Environs areas zoned for increased urban development and transport related development.

Integrated through AP-01.

9.4.9 Transportation

Traffic management measures to reduce the potential for traffic congestion and associated vehicular emissions within and emanating from the Plan area where issues relating to traffic congestion and associated vehicular emissions arise will be implemented.

Integrated through IO-15.

9.4.10 Waste Management

An integrated approach to waste management for proposed developments - to include wastes generated during the construction, operation and maintenance phases - shall be implemented, having particular regard to Best Practice Guidelines on the Preparation of Waste Management Plans for Construction and Demolition Projects (DEHLG, July 2006).

Integrated through IP-07 and IO-27.

9.4.11 Energy/ Energy Conservation

Energy conservation measures shall be promoted and the use of renewable energy systems in new developments which are provided for by the Plan.

Integrated through ECO-01.

Section 10 Monitoring Measures

10.1 Introduction

The SEA Directive requires that the likely significant environmental effects of the implementation of plans and programmes are monitored. This section contains the measures for monitoring the likely significant effects of implementing 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 Plan is achieving its environmental objectives and targets - measures which the Plan can help work towards - whether these need to be reexamined and whether the proposed mitigation measures are being implemented.

10.2 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 Strategic Environmental Objectives used in the evaluation. Focus is given to indicators which are relevant to the likely significant environmental effects of implementing the Development Plan and existing monitoring arrangements are to be largely used in order to monitor the selected indicators. Each indicator to be monitored is accompanied by the relevant target(s) which were identified with regard to the relevant legislation (see Section 4).

Table 10.1 shows the indicators and targets which have been selected with regard to the monitoring of the plan.

10.3 Sources

Measurements for indicators generally come from existing monitoring sources. Existing monitoring sources exist for each of the indicators and include those maintained by Mayo County Council and Westport Town 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 both Mayo County Council and Westport Town Council will provide passive monitoring of various 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 RMP, entries to the RPS or ecological networks as a result of the undertaking of individual projects or multiple individual projects such instances should be identified and recorded and should feed into the monitoring evaluation.

10.3.1 Excluded Indicators and Targets

As noted on Table 10.1, monitoring data for Indicator W2 (Groundwater Quality Standards and Threshold Values under Directive 2006/118/EC) may not be available for the preliminary monitoring evaluation as the groundwater threshold values to which this indicator relates have not yet been identified by the EPA.

10.4 Reporting

A preliminary monitoring evaluation report on the effects of implementing the Plan will be prepared to coincide with the Manager's report to the elected members on the progress achieved in securing Plan objectives within two years of the making of the Plan (this Manager's report is required under section 15 of the 2000 Planning Act).

10.5 Responsibility

Westport Town Council and Mayo 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.

It is recommended that a Steering Committee be established to oversee the monitoring process.

10.6 Thresholds

Thresholds at which corrective action will be considered include the following:

- boil notices on drinking water;
- fish kills;
- complaints received from statutory consultees regarding avoidable impacts resulting from development which is granted permission under the Plan; and,
- court cases taken by the DEHLG regarding impacts upon archaeological heritage including entries to the Record of Monuments and Places.

Environmental Component	Selected Indicator(s)	Selected Target(s)	Source
Biodiversity, Flora and Fauna	<p>B1: Percentage of relevant habitats and designated ecological sites lost as a result of implementation of the Plan</p> <p>B2: Number of significant adverse impacts, including direct, cumulative and indirect impacts, to relevant habitats, geological features, species or their sustaining resources in designated ecological sites by development within or adjacent to these sites as a result of implementation of the Plan</p> <p>B3: Percentage loss of connectivity between areas of local biodiversity as a result of implementation of the Plan - as evidenced from a resurvey of CORINE mapping</p>	<p>B1: No losses of relevant habitats, species or their sustaining resources in designated ecological sites as a result of implementation of the Plan</p> <p>B2: No significant adverse impacts, including direct, cumulative and indirect impacts, to relevant habitats, geological features, species or their sustaining resources in designated ecological sites by development within or adjacent to these sites as a result of implementation of the Plan</p> <p>B3: No ecological networks or parts thereof which provide significant connectivity between areas of local biodiversity to be lost without remediation as a result of implementation of the Plan</p>	<p>CORINE Mapping, NPWS Records & Development Management Processes in Westport Town Council and Mayo County Council</p> <p>Development Management Processes in Westport Town Council and Mayo County Council & Consultation with the National Parks and Wildlife Service</p> <p>CORINE mapping</p>
Population and Human Health	HH1: Occurrence (any) of a spatially concentrated deterioration in human health	HH1: No spatial concentrations of health problems arising from environmental factors	Westport Town Council, Mayo County Council, EPA, Health and Safety Authority
Soil	S1: Area of brownfield land developed over the Plan period.	S1: Reduced availability of brownfield land (subject to availability on the open market, the demand for such land and the ability for such lands to be sustainably re-used within the provisions of the Plan) at the end of the Plan lifespan	Development Management Processes in Westport Town Council and Mayo County Council

Environmental Component	Selected Indicator(s)	Selected Target(s)	Sources
Water	Indicator W1i: Biotic Quality Rating (Q Value)	W1ia: To maintain a biotic quality rating of Q4, in line with the requirement to achieve good water status under the Water Framework Directive, by 2015 W1ib: To improve biotic quality ratings, where possible, to Q5	Environmental Protection Agency
	W1ii: Trophic Status (ATSEBI)	W1ii: To maintain or to improve trophic status, where relevant, to unpolluted in line with the requirement to achieve good water status under the Water Framework Directive, by 2015	Environmental Protection Agency
	W2: Groundwater Quality Standards and Threshold Values under Directive 2006/118/EC	W2: Compliance with Groundwater Quality Standards and Threshold Values under Directive 2006/118/EC	Environmental Protection Agency; as noted under Section 10.3.1, monitoring data may not be available for this indicator when the monitoring evaluation is being prepared.
	W3: Number of developments granted permission on lands which pose - or are likely to pose in the future - a significant flood risk	W3: Minimise developments granted permission on lands which pose - or are likely to pose in the future - a significant flood risk	Development Management Processes in Westport Town Council and Mayo County Council
	W4: Number of non-compliances with the 48 parameters identified in the European Communities (Drinking Water) Regulations (No. 2) 2007 which present a potential danger to human health	W4: No non-compliances with the 48 parameters identified in the European Communities (Drinking Water) Regulations (No. 2) 2007 which present a potential danger to human health	Environmental Protection Agency

Environmental Component	Selected Indicator(s)	Selected Target(s)	Sources
Air and Climatic Factors	<p>C1i: Percentage of population within the Plan area travelling to work or school by public transport or non-mechanical means</p> <p>C1ii: Average distance travelled to work or school by the population of the Plan area</p>	<p>C1i: An increase in the percentage of the population travelling to work or school by public transport or non-mechanical means</p> <p>C1ii: A decrease in the average distance travelled to work or school by the population of the Plan area</p>	Central Statistics Office
Material Assets	M1: Number of new developments granted permission which cannot be adequately served by a public waste water treatment plant over the lifetime of the Plan	M1: No new developments granted permission which cannot be adequately served by a public waste water treatment plant over the lifetime of the Plan	Development Management Processes in Westport Town Council and Mayo County Council
Cultural Heritage	<p>CH1: Number of unauthorised developments occurring which result in full or partial loss to archaeological heritage - including entries to the Record of Monuments and Places and unknown archaeology - and the context of the above within the surrounding landscape where relevant</p> <p>CH2i: Number of unauthorised developments occurring which result in physical loss or loss entries to the Record of Protected Structures and/or their context within the surrounding landscape where relevant</p> <p>CH2ii: Number of additions to the Record of Protected Structures and the number of additional ACAs and comparison with the NIAH</p>	<p>CH1: No unauthorised developments occurring which result in full or partial loss to archaeological heritage - including entries to the Record of Monuments and Places and unknown archaeology - and the context of the above within the surrounding landscape where relevant</p> <p>CH2i: No unauthorised developments occurring which result in physical loss or loss entries to the Record of Protected Structures and/or their context within the surrounding landscape where relevant</p> <p>CH2ii: Make Additions to the Record of Protected Structures and make additional ACAs, where appropriate</p>	<p>Development Management Processes in Westport Town Council and Mayo County Council</p> <p>Development Management Processes in Westport Town Council and Mayo County Council</p> <p>Development Management Processes in Westport Town Council and Mayo County Council</p>

Environmental Component	Selected Indicator(s)	Selected Target(s)	Sources
Landscape	L1: Number of complaints received from statutory consultees regarding avoidable impacts resulting from development which is granted permission under the Plan	L1: No developments permitted which result in avoidable impacts on Westport's most sensitive landscapes	Development Management Processes in Westport Town Council and Mayo County Council

Table 10.1 Selected Indicators, Targets and Monitoring Sources

Appendix I Site Synopses

Special Areas of Conservation⁸⁸

Site Name: Clew Bay Complex SAC and pNHA

Site Code: 001482

Clew Bay is a wide, west-facing bay on the west coast of Co. Mayo. It is open to the westerly swells and winds from the Atlantic with Clare Island giving only a small amount of protection. The drumlin landscape was formed during the last glacial period when sediments were laid down and smoothed over by advancing ice - the sea has subsequently inundated this area, creating a multitude of islands. The geomorphology of the bay has resulted in a complex series of interlocking bays creating a wide variety of marine and terrestrial habitats, including several listed on Annex I of the E.U. Habitats Directive: large shallow bay, lagoon, Atlantic saltmeadows, drift lines, perennial vegetation of stony banks, embryonic shifting dunes, Marram dunes and dune slacks. Within the shallow bay, subtidal sediments are characterised by typical bivalve communities in fine sand (*Chamelea striatula* and *Ensis* sp.), and by the polychaete worm *Euclymene* and the bivalve *Thyasira flexuosa* in muddy sand. The intertidal sediment communities are characterised by polychaetes and bivalves in the mid-shore and by the sand mason worm *Lanice conchilega* in the low shore. In areas where there is maerl debris with small amounts of live maerl the infaunal community has amixture of species characteristic of coarse sand (e.g. the bivalves *Timoclea ovata*, *Spisula* sp., and the polychaetes *Nephtys cirrosa* and *Glycera lapidum*) and medium sand (e.g., the bivalve *Ensis* sp. and the polychaetes *Lanice conchilega*, *Scoloplos armiger* and *Sthenelais boa*). The bivalves *Timoclea ovata*, *Tapes rhomboides* and the polychaetes *Branchiomma bombyx* and *Glycera lapidum* are typical of gravels and medium sands, whereas the bivalves *Abra alba*, *Corbula gibba*, *Thyasira flexuosa* and *Mysella bidentata* and the polychaete *Euclymene* are characteristic of muddy sands. Beds of live maerl of *Lithothamnion corallioides* are also present in a number of areas. Around the edges of the inner part of the bay are shores of mixed boulders, cobbles, gravel with some sand and mud. They have a typical zonation of intertidal communities found on sheltered shores of mixed substratum. The shore at Murisk is unusual as a distinct zone characterised by archiannelids occurs above the sandhopper zone in the upper shore under the boulders and cobbles. This is an unusual habitat. In sheltered areas of shallow water with little sand scour a well developed community of hydroids, sponges and solitary sea squirts is present. Where the sediments includes gravel and mud the species richness in the area can be exceptionally high (180 species). A number of marine species that are rarely recorded are found in Clew Bay: the stalked jellyfish *Lucernariopsis cruxmeltensis*; the polychaetes *Anitides rosea*, *Clymenura clypeata*, *Pterosyllis formosa* and *Pionosyllis* sp. and the snail *Clypterea chinensis*. Clew Bay is considered to have the most significant shingle reserves in the country, and has (on the islands) the only examples of incipient gravel barriers in Ireland. Associated with the shingle (and dunes) are good examples of annual vegetation of drift lines. Characteristic species found in these habitats include: Spear-leaved Orache (*Atriplex prostrata*), Red Fescue (*Festuca rubra*), Sea Sandwort (*Honkenyapeplodes*), Thrift (*Armeria maritima*), Common Scurvygrass (*Cochlearia officinalis*), Sea Mayweed (*Matricaria maritima*) and Sea Campion (*Silene vulgaris* subsp. *maritima*). Lough Furnace is located at the north-eastern corner of Clew Bay. The lough is a good example of a deep, stratified, saline lake lagoon in a very natural state. Salinity levels can vary considerably here depending on rainfall and tides. The lake is one of the very few permanently stratified lakes known in Ireland and Britain. The lake is ringed by Common Reed (*Phragmites australis*) and Common Club-rush (*Scirpus lacustris*), with small patches of Great Fen-sedge (*Cladium mariscus*) and Bottle Sedge (*Carex rostrata*). Lough Furnace supports a relatively high faunal diversity (41 taxa recorded in the 1996 survey) including a number of important invertebrate species. The relict mysid species *Neomysis integer*, the isopods *Jaera albifrons*, *J. ischiosetosa* and *J. nordmanni*, and two rare amphipods (*Lembo longipes* and *Leptocheirus pilosus*) have all been recorded from the lake. Both Irish species of tasselweed (*Ruppia maritima* and *R. cirrhosa*) occur in the lagoon. Eel, Flounder and Mullet also occur in the lake waters. Mallard nest around the lough, while Saint's Island contains nesting Black-headed Gull. At the north-western end of Lough Furnace lie two associated lakes, Lough Napransky and Lough Navroony. A stream drains from the latter into the main lake. The area contains flush and quaking-mire vegetation, which is of interest as Irish Heath (*Erica rigena*) is found there, with Bog Moss (*Sphagnum* spp.), Black Bog-rush (*Schoenus nigricans*), Bog Asphodel (*Narthecium ossifragum*), Common Cottongrass (*Eriophorum angustifolium*) and Round-leaved Sundew (*Drosera rotundifolia*). Bog Orchid (*Hammarbya paludosa*), a species listed in the Irish Red Data Book is also found in this area. Beyond the wet area there is a Hazel (*Corylus avellana*) dominated woodland growing over abandoned fields. Birch (*Betula pubescens*), Hawthorn (*Crataegus monogyna*) and Holly (*Ilex aquifolium*) are common, with occasional Oak (*Quercus petraea*). The ground flora contains such species as Bluebell (*Hyacinthoides non-scripta*), Sanicle (*Sanicula europaea*) and Wood-sorrel (*Oxalis acetosella*). The Rosmurrevagh area in the north of Clew Bay displays a high diversity of habitats, from seashore to dunes and coastal grassland, as well as saltmarsh, bog and fen. The sandy beach on the seaward side grades into dunes of Marram (*Ammophila arenaria*). Adjacent to this, the saltmarsh vegetation, which is approximately 5 meters wide, comprises Thrift, Common Scurvygrass, Common Saltmarsh-grass (*Puccinellia maritima*) and 'turf fucoids' (diminutive forms of brown algae). These plant species are typical of Atlantic salt meadows. Similar saltmarshes occur scattered around the entire shoreline of the bay. Next to the saltmarsh at Rosmurrevagh is an area of coastal grassland with species such as Daisy (*Bellis perennis*), Ribwort Plantain (*Plantago lanceolata*), Dandelion (*Taraxacum officinale*), Heath Wood-rush (*Luzula multiflora*), Common Ragwort (*Senecio jacobaea*) and Yarrow (*Achillea millefolium*). Flushes introduce a species-rich bog/fen type vegetation. Yellow Iris (*Iris pseudacorus*), Soft Rush (*Juncus effusus*), Irish Heath, Bog Mosses, sedges, Water Mint (*Mentha aquatica*), Bog-myrtle (*Myrica gale*), Bog Asphodel and Cuckooflower (*Cardamine pratensis*) are found. A further dune system occurs at Bartraw in the south-west of the site. Here Marram and embryonic dunes occur along a shingle ridge which links a small island where dunes also occur. Embryonic dunes, characterised by the presence of Sand Couch (*Elymus farctus*), also occur on some of the islands in the bay. Important populations of Otter and Common Seal are found in Clew Bay. Both of these species are listed on Annex II of the E.U. Habitats Directive. The Clew Bay Complex supports a good diversity of wintering waterfowl, with nationally important numbers of Red-breasted Merganser (average maximum of 70 in the winters 1995/96-1999/00) and Ringed Plover (average maximum of 142 in the winters 1995/96-1999/00). A population of Barnacle Geese (between 100 and 200 birds) frequents the islands during winter. Other species which occur in

⁸⁸ National Parks and Wildlife (2001) *Site Synopses for Special Areas of Conservation* Dublin: Government of Ireland

significant numbers include Great Northern Diver (14), Brent Goose (118), Shelduck (74), Wigeon (112), Teal (127), Mallard (64), Oystercatcher (250), Dunlin (450), Bar-tailed Godwit (73), Curlew (373), Redshank (172), Greenshank (10) and Turnstone (27) (all figures are average maxima for the winters 1995/95-1999/00). Species which breed in important numbers include Cormorant (115 pairs in 1985), Common Tern (20+ pairs in 2000/01), Arctic Tern (100+ pairs in 2000/01) and Little Tern (9 pairs in 2000). The various tern species, as well as Barnacle Goose, Great Northern Diver and Bar-tailed Godwit, are listed on Annex I of the E.U. Birds Directive. The juxtaposition within Clew Bay of a wide variety of habitats, including seven listed on Annex I of the E.U. Habitats Directive, and the combination of important flora and fauna, including one Red Data Book plant and two mammals listed on Annex II of the E.U. Habitats Directive, make this a site of considerable national and international importance.

25.10.2001

Proposed Natural Heritage Areas⁸⁹

Site Name: Ardogommon Woods pNHA

Site Code: 001470

Ardogommon Wood is found on the more rocky parts of the limestone drift, with outcrops of bedrock and steep slopes on the hills just southeast of Westport. The area of interest is on a steep slope overlooking the railway and has a partly planted and partly natural origin. A line of beech (*Fagus sylvatica*) follows the railway, but elsewhere the largest trees are Oak (*Quercus petraea* and *Q. rober*), Sycamore (*Acer pseudo-platanus*), Goat Willow (*Salix caprea*), Ash (*Fraxinus excelsior*) and Birch (*Betula pubescens*). The latter becomes more frequent towards the top of the slope, with Willow (*Salix cinerea*) and some Rowan (*Sorbus aucuparia*) also present. Hazel (*Corylus avellana*) is the commonest understorey species, and forms some of the canopy also. The ground vegetation is grazed quite heavily but includes a good variety of herbs. Brambles (*Rubus fruticosus* agg.), Honeysuckle (*Lonicera periclymenum*) and Bracken (*Pteridium aquilinum*) occur, with Enchanters' Nightshade (*Circaea lutetiana*), Wood Speedwell (*Veronica montana*), Bugle (*Ajuga reptans*), Golden Saxifrage (*Chrysosplenium oppositifolium*) and Distant Sedge (*Carex remota*), as well as a variety of more common species. The wood is relatively rich in birdlife, having suitable conditions for high-forest species such as Chiff-chaff, Mistle Thrush and Great Tit - scrub species such as Willow Warbler, Long Tailed Tit and Robin are also found there. A surprising amount of deciduous woodland exists in the hilly countryside around Westport. This adds greatly to the scenic quality of the landscape. Ardogommon Wood is of particular interest as its woodland flora and fauna is better developed than in those nearer to Westport.

15.02.1995

⁸⁹ National Parks and Wildlife (1995) *Site Synopses for Proposed Natural Heritage Areas* Dublin: Government of Ireland