

# ENVIRONMENTAL REPORT

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FOR

## VARIATION No. 1

TO THE

## NAVAN DEVELOPMENT PLAN 2009-2015

**for: Meath County Council**

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Navan  
County Meath



**by: CAAS Ltd.**

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## List of Abbreviations

<b>AA</b>	Appropriate Assessment
<b>CSO</b>	Central Statistics Office
<b>DAHG</b>	Department of Arts, Heritage and the Gaeltacht
<b>DCENR</b>	Department of Communications, Energy and Natural Resources
<b>DEHLG</b>	Department of the Environment, Heritage and Local Government
<b>DECLG</b>	Department of the Environment, Community and Local Government
<b>EIA</b>	Environmental Impact Assessment
<b>EPA</b>	Environmental Protection Agency
<b>EU</b>	European Union
<b>GSI</b>	Geological Survey of Ireland
<b>NHA</b>	Natural Heritage Area
<b>NIAH</b>	National Inventory of Architectural Heritage
<b>RBD</b>	River Basin District
<b>RMP</b>	Record of Monuments and Places
<b>RPS</b>	Record of Protected Structures
<b>RPGs</b>	Regional Planning Guidelines
<b>SAC</b>	Special Area of Conservation
<b>SEA</b>	Strategic Environmental Assessment
<b>SEO</b>	Strategic Environmental Objective
<b>SI No.</b>	Statutory Instrument Number
<b>SPA</b>	Special Protection Area
<b>WFD</b>	Water Framework Directive

# Glossary

## Appropriate Assessment

The obligation to undertake Appropriate Assessment derives from Article 6(3) and 6(4) of the Habitats Directive 92/43/EEC. AA is a focused and detailed impact assessment of the implications of a strategic action or project, alone and in combination with other strategic actions and projects, on the integrity of a Natura 2000 site in view of its conservation objectives.

## 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<sup>th</sup> 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 outset 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 and Development Act 2000 as amended 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 former Department of the Environment, Heritage and Local Government (now Department of Arts, Heritage and the Gaeltacht) 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 appropriate environmental authorities.

## Strategic Actions

Strategic actions include: *Policies/Strategies*, 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, or a variation to these, before a decision is made to adopt it.

## Strategic Environmental Objective (SEO)

Strategic Environmental Objectives (SEOs) are methodological measures developed from policies which generally govern environmental protection objectives established at international, Community or Member State level and are used as standards against which the provisions of the Variation and the alternatives can be evaluated in order to help identify which provisions would be likely to result in significant environmental effects and where such effects would be likely to occur, if - in the case of adverse effects - unmitigated.

# Section 1 SEA Introduction and Background

## 1.1 Introduction and Terms of Reference

This is the Strategic Environmental Assessment (SEA) Environmental Report for Variation No. 1 to the Navan Town Development Plan 2009-2015. It has been undertaken by CAAS Ltd. on behalf of Meath County Council.

The purpose of this report is to provide a clear understanding of the likely environmental consequences of decisions regarding the adoption and implementation of the Variation. The SEA is carried out in order to comply with the provisions of the Planning and Development (Strategic Environmental Assessment) Regulations 2004 (SI No. 436 of 2004) as amended. This report should be read in conjunction with the Variation.

## 1.2 SEA Definition

Environmental assessment is a procedure that ensures that the environmental implications of decisions are taken into account before such decisions are made. *Environmental Impact Assessment*, or EIA, is generally used for describing the process of environmental assessment for individual projects, while *Strategic Environmental Assessment*, or SEA, is the term which has been given to the environmental assessment of plans and programmes, which help determine the nature and location of individual projects taking place. SEA is a systematic process of predicting and evaluating the likely significant environmental effects of implementing a proposed plan or programme, or a variation to these, in order to ensure that these effects are adequately addressed at the earliest appropriate stages of decision-making in tandem with economic, social and other considerations.

## 1.3 SEA Directive and its transposition into Irish Law

Directive 2001/42/EC of the European Parliament and of the Council of Ministers, of 27<sup>th</sup> 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, or variations to these, 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<sup>st</sup> July 2004. The Regulations have been amended by the European Communities (Environmental Assessment of Certain Plans and Programmes) (Amendment) Regulations 2011 (SI No. 200 of 2011) and the Planning and Development (Strategic Environmental Assessment) (Amendment) Regulations 2011 (SI No. 201 of 2011).

## 1.4 Implications for the Variation and the Planning Authority

Article 7 of the Planning and Development (Strategic Environmental Assessment) Regulations 2004 (SI No. 436 of 2004) as amended requires that Strategic Environmental Assessment is undertaken for the preparation of certain Variations to Development Plans.

The findings of the SEA are expressed in this Environmental Report, which accompanied the Proposed Variation on public display and has been altered in order to take account of recommendations contained in submissions and in order to take account of any changes which were made to the Proposed Variation on foot of submissions. Members of the planning authority took into account the findings of this Report and other related SEA output during their consideration of the Proposed Variation and before its adoption.

On the adoption of the Variation, an SEA Statement is prepared which summarises,

inter alia, how environmental considerations have been integrated into the Variation.

## Section 2 The Variation

### 2.1 Content of the Variation

The Variation contains 3 principal components as follow:

1. A **Core Strategy** for the Navan Development Plan 2009 – 2015 as required pursuant to Section 10 (1B) of the Planning and Development Act 2000 – 2014. In addition, it is noted that The Meath County Development Plan 2013-2019 advises that the Navan Development Plan will need to be reviewed to reflect the household projections. According to objective CS OBJ 4, it is an objective of the County Development Plan: “To ensure that the Navan, Trim and Kells Development Plans are consistent with the settlement hierarchy and population projections set out in this Development Plan. These Development Plans will be varied, if necessary, to ensure that they are consistent, within one year of the adoption of the Meath County Development Plan 2013-2019.”

The Core Strategy will ensure, inter alia, that the quantum of land identified for residential development adheres to the determined household allocation for Navan (3,984 no. units) for the period up to 2019 as contained in the new Meath County Development Plan 2013-2019.

2. Integration of a **Local Transport Plan** into the Navan Development Plan 2009 – 2015 as required pursuant to the National Transportation Authority draft Transport Strategy for the Greater Dublin Area (2030 Vision).
3. Integration of **two** existing **Local Area Plans** into the Navan Development Plan as Framework Plans subject to their review following the preparation of the Core Strategy / Local Transport Plan for the Navan Development Plan.

Revisions to the text of the Navan Development Plan to reflect changes in policy and developments that have occurred since the adoption of the Plan are also proposed.

### 2.2 Core Strategy Policy and Objectives

Core Strategy Policies and Objectives are as follow:

- CS POL 1 To promote land-use planning measures which aim for transportation efficiency, economic returns on transport investment, minimisation of environmental impacts and a general shift towards the use of public transportation.
- CS OBJ 1: To promote and facilitate the development of sustainable communities through land use planning, by providing for land uses capable of accommodating employment, community, leisure, recreational and cultural facilities having regard to the quality of the environment, including the natural environment, landscape character and the archaeological and architectural heritage.
- CS OBJ 2: To ensure that planning applications for residential development adhere to the Order of Priority Phasing Programme for Navan as set out in Table 2A4 of this Development Plan. The Phase 1 lands include those sites with the benefit of an extant planning permission for multi-unit residential development from the date of publication of Variation No. 1 of the Navan Development Plan. No extension of duration permitted for multiple unit residential developments pursuant to Section 42 of the Planning and Development Act 2000-2014 shall extend the life of the planning permission beyond the period of the Meath County Development Plan 2013 – 2019..
- CS OBJ 3: To operate an Order of Priority for the release of residential lands as follows:

- (i) The lands identified with an A2 “New Residential” land use zoning objective corresponds with the requirements of Table 2A4 of this Development Plan and are available for residential development within the life of this Development Plan.
- (ii) The lands identified with an A2 “New Residential” land use zoning objective but qualified as “Residential Phase II (Post 2019)” are not available for residential development prior to 2019.
- CS OBJ 4 To implement the measures contained in the Navan Local Transport Plan 2014-2019.
- CS OBJ 5 To support the continued development of Navan as a Level 2 Retail Centre and the primary retail destination in County Meath.
- CS OBJ 6 To implement the provisions of the Meath County Retail Strategy 2013 – 2019 as they relate to Navan town and environs.

## 2.3 Relationship with other relevant Plans and Programmes<sup>1</sup>

### 2.3.1 Introduction

The Plan to be varied sits within a hierarchy of land use forward planning strategic actions. The Plan to be varied must comply with relevant higher level strategic actions and may, in turn, guide lower level strategic actions. The following sections identify a number of these strategic actions, further details of which are contained in Plan as varied.

### 2.3.2 The National Spatial Strategy

The National Spatial Strategy (NSS) for Ireland is a long term national planning framework designed to achieve a better balance of social, economic and physical development as well as balanced population growth between the regions. The NSS provides guidance for future development throughout the country by identifying a hierarchy of settlements to accommodate future growth, with the driving

objective of achieving balanced regional development. The strategy seeks to renew, consolidate and develop existing urban centres, keeping them as physically compact and transport friendly as possible and minimising urban sprawl whilst achieving a high quality of design in new development. The aim is to utilise urban land sensitively and efficiently, reduce dereliction and encourage refurbishment, with emphasis placed on quality of life through balanced regional development. Navan is one of the smaller towns identified to cater for local growth and is also regarded in the NSS as a town with an Urban Strengthening Opportunity.

### 2.3.3 Regional Planning Guidelines for the Greater Dublin Area 2010-2022

The Regional Planning Guidelines (RPGs) for the Greater Dublin Area 2010-2022 outline how the national spatial structure relates to each of the regions. Navan is located within the area of the Regional Planning Guidelines for the Greater Dublin Area. The Guidelines divide the overall strategy area into a Metropolitan and Hinterland area, with Navan situated in the Hinterland Area. The strategy for the Hinterland area is to channel development into a number of self-sustaining growth towns, which would be separated by green belts and in the long term would reduce the numbers commuting to Dublin. Within this area, the Guidelines state that large towns should absorb most of the new population growth and will continue to act as major service centres for adjoining towns and the surrounding rural area.

Navan is also identified as a Large Growth Town I and a Primary Economic Growth Centre in the Regional Planning Guidelines for the Greater Dublin Area. Large Growth Towns are to accommodate significant new investment in transport, in economic and commercial activity and in housing. The Large Growth Towns I in Meath (Drogheda and Navan) are noted as being economically active towns supporting the surrounding area and located on multi modal corridors. It is envisaged that large Growth Town I should plan for growth up to 50,000 persons.

The Guidelines state that Primary Economic Growth Towns should be promoted as anchors

<sup>1</sup> Much of the text in this section comes from the Proposed Variation document.



for regional enterprise. The Navan Economic Area is identified in this regard. These centres are also important in delivering balanced regional development by serving their urban and rural hinterland areas and should be prioritised for economic development and investment to redress the imbalance of residential development and jobs and emergence of dormitory areas. Kells (Secondary Economic Growth Town) and Trim are also included as part of the Navan Economic Area and these smaller towns will rely on Navan for elements of employment, retail and social services.

In terms of retail, Navan is designated as a Level 2 Centre. It is considered desirable to enhance the retail offer of the town, particularly in respect of comparison retail development and in terms of attracting additional multiple retailers to Navan.

In terms of spatial growth patterns, the Guidelines emphasise the importance of consolidation in the future growth of towns, the application of a sequential approach to urban development and the creation of sustainable towns.

Phase II of the Navan-Dublin rail line is included in the Guidelines as a strategic transport investment project which would assist in the delivery of the settlement and economic strategy. The Upgrade and expansion of abstraction of Navan Water Treatment Plant to increase supply is considered an investment priority in the area of water supply.

### **2.3.4 Meath County Development Plan 2013-2019**

The Meath County Development Plan provides the overall statutory framework for the development of County Meath and details the spatial development strategy for the county which is organised around a hierarchical structure of urban settlements and the rural area. Navan, in addition to the Drogheda Environs, is designated as a Large Growth Town I, consistent with the Regional Planning Guidelines for the Greater Dublin Area. These towns occupy the top tier in the hierarchy. Development is to be primarily directed towards these Large Growth Towns (objective SS OBJ 1 refers). These centres are also to accommodate significant new investment in

transport, economic and commercial activity and in housing. Large Growth Towns I will become, in the longer term, self sustaining and must grow in a manner which supports this goal without threatening the role of other settlements and regions. In particular, development should allow for the integration of land use and transport and the holistic and balanced expansion of the towns.

The Core Strategy of the Meath County Development Plan 2013-2019 includes the population projection for the county. Navan, with an allocation of 3,984 units, requires approximately 88.5 hectares of residential zoned land. The Navan Development Plan, as adopted in 2009, contained approximately 254 hectares, giving a surplus of 165.9 hectares. At the time of preparation of the County Development Plan, there were extant permissions for 786 units in Navan; this has been updated to 973 units.

The County Development Plan advises that the Navan Development Plan will need to be reviewed to reflect the household projections. According to objective CS OBJ 4, it is an objective of the Plan: "To ensure that the Navan, Trim and Kells Development Plans are consistent with the settlement hierarchy and population projections set out in this Development Plan. These Development Plans will be varied, if necessary, to ensure that they are consistent, within one year of the adoption of the Meath County Development Plan 2013-2019."

### **2.3.5 Framework Plans and Master Plans**

#### **2.3.5.1 Introduction**

The zoned area of Navan contains a number of large land banks. In order to ensure an integrated approach to the development of these, they have been alternatively designated as requiring either a framework plan or a master plan. A framework plan is a more detailed document, the contents of which are set out further below.

#### **2.3.5.2 Framework Plans**

Three no. Framework Plans are designated within the Navan Development Plan envelop:

- Framework Plan 1: This area relates to lands off the Ratholdren Road at Nevinstown which are subject to a

community, high natural beauty and 'White Lands' zoning objectives. This area is intended primarily for community facilities to provide for the Regional Hospital and ancillary healthcare uses.

- Framework Plan 2: These lands are located to the east of Navan in the townlands of Athlumney, Alexander Reid, Bailis and Ferganstown and Ballymacon and are zoned for a mix of uses, primarily residential, commercial and employment uses.
- Framework Plan 3: These lands are situated between the Trim Road and the Commons Road and are zoned for a mix of uses, primarily residential.

Framework Plans 2 and 3 have been prepared and are included in Appendix 5 of the Development Plan as varied.

Three Local Area Plans were previously prepared for lands in Navan:

- Local Area Plan 1 which had the main objective of delivering an educational campus in Johnstown. The release of the residential zoned land in this LAP area is governed by the Core Strategy. Consequently, in the interests of simplicity, it is the intention of the Planning Authority proposed to revoke LAP 1 following the making of Variation No. 1.
- Local Area Plan 3 which related to lands zoned mainly for residential use and located to the southwest of Navan. Given the length of time that has elapsed since the Plan was adopted, and that it is now not possible to extend its lifespan, the Plan area has been redesignated as a Framework Plan, (Framework Plan 3), revised to comply with the core strategy and Navan Development Plan 2009-2015. It is also intended to revoke LAP 3 following the making of Variation No. 1 of the Navan Development Plan 2009 -2015.
- Local Area Plan 4 similarly related primarily to residential zoned lands located to the east of Navan. Given the length of time that has elapsed since the Plan was adopted, and that it is not possible to extend its lifespan, the Plan has been redesignated as a Framework Plan (Framework Plan 2), revised to comply with the core

strategy and Navan Development Plan 2009-2015. It is also intended to revoke LAP 4 following the making of Variation No. 1 of the Navan Development Plan 2009 -2015.

### 2.3.5.3 Master Plans

For the areas identified on the land use zoning and development objectives maps as requiring the preparation of a master plan, a master plan must be submitted with any planning application in respect of these lands. The master plan should illustrate the overall block layout and road layout for the lands in their entirety and the phasing of development proposed, which shall be consistent, where relevant, with the Order of Priority set out in the Core Strategy to the Development Plan. The areas identified as requiring master plans to be prepared are as follows:

- Master Plan 3: Lands at Abbeylands which are zoned for residential use.
- Master Plan 4: Lands located to the north of Navan in the Clonmagadden townland which are zoned for a mix of uses including residential, community, employment and open space.
- Master Plan 5: Area including and adjoining Blackcastle House, primarily zoned for residential use.
- Master Plan 6: Lands in the centre of Navan which represent the expansion of the town centre in Navan.
- Master Plan 7: Lands at Knockumber zoned for retail warehousing.
- Master Plan 8: Triangle of lands formed by the Trim Road, the former Navan-Dublin Rail Alignment and lands adjoining the Swan River.

There are also two existing Area Action Plans in place within the Development Plan area, Area Action Plan 1 and Area Action Plan 2, which have been re-named, in the interests of consistency, as Master Plan 1 and 2 respectively.

- Master Plan 1 (previously Action Area Plan 1 2008): Lands east of the N51 and north of the R147 which are zoned for a mix of uses primarily visitor and tourist related and mixed use commercial activity.
- Master Plan 2 (previously Action Area Plan 2 2008): Lands north of the R147 which are zoned predominantly for mixed use commercial activity.

### **2.3.6 River Basin Management Plans**

Local Authorities, including Meath County Council, have prepared the Eastern River Basin Management Plan which is implemented in order to help protect and improve waters in the county and wider River Basin District. The Plan and associated Programme of Measures includes provisions to help ensure that water bodies in the districts meet the objectives of the Water Framework Directive.

### **2.3.7 Catchment Flood Risk Assessment and Management Studies**

Catchment Flood Risk Assessment and Management (CFRAM) Studies are being undertaken for the Eastern River Basin District by the Office of Public Works.

The study is focusing on areas known to have experienced flooding in the past and areas that may be subject to flooding in the future either due to development pressures or climate change. In 2014, draft Flood Maps will be published. The final output from the study will be a CFRAM Plan, to be published in December 2016. The Plan will define the current and future flood risk in the River Basin District and set out how this risk can be managed.

### **2.3.8 Smarter Travel 2009**

"Smarter Travel, A Sustainable Transport Future, A New Transport Policy for Ireland 2009 - 2020" is the Government's action plan to free towns and cities from traffic congestion, substantially cut CO2 emissions, encourage car based commuters to leave their cars at home, and encourage a shift toward walking, cycling and greater public transport usage.

### **2.3.9 GRID 25 and associated Implementation Plan**

Grid25 is a high-level strategy outlining how EirGrid intends to undertake the development of the electricity transmission grid in the short, medium and longer terms, to support a long-term sustainable and reliable electricity supply. The Grid25 strategy thereby seeks to implement the

provisions of the 2007 Government White Paper on Energy - "Delivering a Sustainable Energy Future for Ireland" in terms of development of electricity transmission infrastructure. The Grid25 Implementation Programme (IP) is a practical strategic overview of how the early stages of Grid25 are intended to be implemented.

### **2.3.10 Food Harvest 2020**

Food Harvest 2020 is a roadmap for the Irish food industry, as it seeks to innovate and expand in response to increased global demand for quality foods. It sets out a vision for the potential growth in agricultural output after the removal of milk quotas in 2015.

### **2.3.11 Environmental Protection Objectives**

The Variation is subject to a number of high level environmental protection policies and objectives with which it must comply, including those which have been identified as Strategic Environmental Objectives in Section 5.

Examples of Environmental Protection Objectives include the aim of the EU Habitats Directive - which is to contribute towards ensuring biodiversity 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 which, among other things, prevents deterioration in the status of all water bodies and protects, enhances and restores all waters with the aim of achieving good status by 2015.

## Section 3 SEA Methodology

### 3.1 Introduction to the Iterative Approach

This section details how the SEA has been undertaken alongside the preparation of the Variation. Figure 3.1 lays out the main stages in the Variation/SEA preparation process.

The Variation and associated SEA, Appropriate Assessment (AA) and Strategic Flood Risk Assessment (SFRA) documents were prepared in an iterative manner whereby multiple revisions of each document were prepared, each informing subsequent iterations of the others.

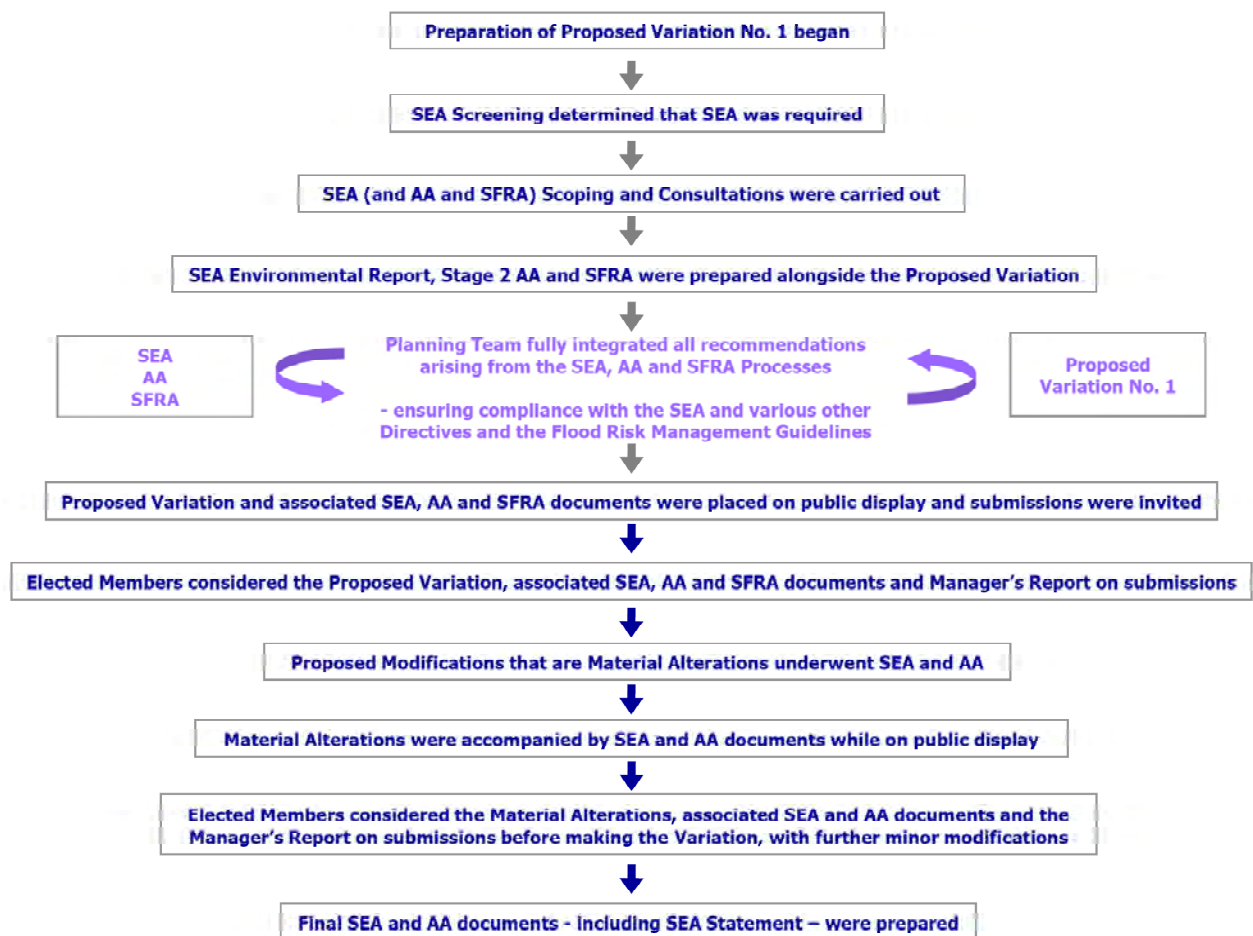


Figure 3.1 Variation to Navan Development Plan and SEA, AA and SFRA Stages

## **3.2 Appropriate Assessment and Integrated Biodiversity Impact Assessment**

### **3.2.1 Appropriate Assessment**

A Stage 2 Appropriate Assessment (AA) has been undertaken alongside the preparation and adoption of the Variation.

The requirement for AA is provided under the EU Habitats Directive (Directive 1992/43/EEC).

The AA concluded that the Variation will not affect the integrity of the Natura 2000 network.

The preparation of the Variation, SEA and AA has taken place concurrently and the findings of the AA have informed both the Variation and the SEA. All recommendations made by the AA were integrated into the Variation.

## **3.3 Strategic Flood Risk Assessment**

A Strategic Flood Risk Assessment (SFRA) has been undertaken alongside the preparation and adopted of the Variation.

The requirement for SFRA is provided under 'The Planning System and Flood Risk Management Guidelines for Planning Authorities' (DEHLG, 2009).

The preparation of the Variation, SEA and SFRA has taken place concurrently and the findings of the SFRA have informed both the Variation and the SEA. All recommendations made by the SFRA have been integrated into the Variation.

## **3.4 Screening**

Screening is the process for determining whether a particular plan - or variation to a plan -, other than those for which SEA is mandatory, would be likely to have significant environmental effects, and would thus warrant SEA.

In consultation with the environmental authorities, Proposed Variation No. 1 was examined against Schedule 2A '*Criteria for determining whether a plan is likely to have significant effects on the environment*' of the SEA Regulations, as amended, and it was determined that, based on information on the expected content of the Proposed Variation that was currently available at the time, the Proposed Variation would be likely to result in significant environmental effects, if unmitigated. Therefore it was determined that an SEA was required to be undertaken.

The SEA Scoping Report noted that a Stage 2 AA is required to be undertaken on the Proposed Variation and that this also necessitates the undertaking of an SEA for the Proposed Variation.

## **3.5 Scoping**

### **3.5.1 Introduction**

In consultation with the environmental authorities, the scope of environmental issues to be dealt with by the SEA together with the level of detail to which they are addressed was broadly decided upon taking into account the collection of environmental baseline data and input from environmental authorities. Scoping allowed the SEA to become focused upon key issues relevant to the environmental components which are specified under the SEA Directive<sup>2</sup>.

As the Proposed Variation is not likely to have significant effects on the environment in another Member State transboundary consultations as provided for by Article 7 of the SEA Directive were not undertaken.

### **3.5.2 Scoping Notices**

All relevant environmental authorities<sup>3</sup> identified under the SEA Regulations as

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<sup>2</sup> These components comprise biodiversity, fauna, flora, population, human health, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above factors.

<sup>3</sup> The following authorities were notified: Environmental Protection Agency; Department of Communications, Energy and Natural Resources; Department of Agriculture, Fisheries and Food; Department of the Environment, Community and

amended, were sent SEA scoping notices by the Council 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 Council. Environmental authorities were informed that submissions, or parts of submissions, made on the AA or SFRA would also be taken into account.

### **3.5.3 Scoping Responses**

Submissions were made by the Environmental Protection Agency and the Department of Communications, Energy and Natural Resources. These submissions influenced the scope of the assessments.

## **3.6 Environmental Baseline Data**

The SEA process is informed by the environmental baseline (i.e. the current state of the environment) to facilitate the identification and evaluation of the likely significant environmental effects of implementing the provisions of the Variation and the alternatives and the subsequent monitoring of the effects of implementing the provisions of the Plan as varied.

## **3.7 Alternatives**

The SEA Directive requires that reasonable alternatives (taking into account the objectives and the geographical scope of the plan or programme, or variation to these) are identified, described and evaluated for their likely significant effects on the environment. In accordance with this requirement, alternatives are considered in Section 6.

## **3.8 The SEA Environmental Report**

In the original version of this Environmental Report, which was placed on public display alongside the Proposed Variation, the likely

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Local Government; Department of Arts, Heritage and the Gaeltacht; and - as adjoining planning authorities whose areas are contiguous to the administrative area of Meath County Council - Louth, Monaghan, Cavan, Westmeath, Offaly, Kildare and Fingal County Councils.

environmental effects of the Proposed Variation and the alternatives were predicted and their significance evaluated.

The Environmental Report provides the Council, stakeholders and the public with a clear understanding of the likely environmental consequences of implementing the Variation.

Mitigation measures to prevent or reduce significant adverse effects posed by the Variation are identified in Section 8 - these have been integrated into the Variation.

The Environmental Report has been updated in order to take account of recommendations contained in submissions and in order to take account of changes which are made to the original, Proposed Variation that is being placed on public display.

The Environmental Report contains the information specified in Schedule 2 of the European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 (SI No. 435 of 2004) as amended (see Table 3.1).

## **3.9 The SEA Statement**

On the making of the Variation by the Council, an SEA Statement is prepared which includes information on:

- How environmental considerations have been integrated into the Variation, highlighting the main changes to the Variation which resulted from the SEA process;
- How the SEA Environmental Report and consultations have been taken into account, summarising the key issues raised in consultations and in the Environmental Report indicating what action was taken in response;
- The reasons for choosing the Variation in the light of the other alternatives, identifying the other alternatives considered, commenting on their potential effects and explaining why the Variation as adopted was selected; and
- The measures decided upon to monitor the significant environmental effects of implementing the Plan as varied.

### **3.10 Difficulties Encountered**

The lack of a centralised data source that could make all environmental baseline data for the county both readily available and in a consistent format posed a challenge to the SEA process. This difficulty is one which has been encountered while undertaking SEAs 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.

**Table 3.1 Checklist of Information included in this Environmental Report**

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



## Section 4 Environmental Baseline

### 4.1 Introduction

The SEA Directive requires that the information on the baseline environment is 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 Variation. Being consistent with the strategic provisions of the Variation, this section provides a strategic description of aspects of environmental components which have the greatest potential to be affected by implementation of the Variation.

Article 5 of the SEA Directive states that the report shall include the information that may *reasonably* be required taking into account:

- Current knowledge and methods of assessment;
- The contents and level of detail in the plan or programme and its stage in the decision-making process; and
- The extent to which certain matters are more appropriately assessed at different levels in that process in order to avoid duplication of the assessment.

What this means in practice is, inter alia, with regard to Variation, that SEA involves collating currently available, relevant environmental data; it does not require major new research. Where data deficiencies or gaps exist, this should be acknowledged in the report.

### 4.2 Likely Evolution of the Environment in the Absence of the Variation

For the likely evolution of the environment in the absence of the variation refer to Section 6.2.

## 4.3 Biodiversity and Flora and Fauna

### 4.3.1 Special Protection Area and Special Area of Conservation

The River Boyne and Blackwater Special Conservation Area (SAC) and Special Protection Area (SPA) (Site Code: 002299) occurs within, upstream and downstream of the town and covers the channels of the Boyne and Blackwater as well as various adjacent areas (see Figure 4.1). The SAC designation extends further into adjacent lands and covers a larger area than the SPA designation.

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 (former) Department of the Environment, Heritage and Local Government due to their conservation value for habitats and species of importance in the European Union. SPAs have been selected for protection under the 1979 European Council Directive on the Conservation of Wild Birds (79/409/EEC) due to their conservation value for birds of importance in the European Union. SPAs along with SACs comprise Natura 2000 - a network of protected areas throughout the EU established under the Habitats Directive. An Appropriate Assessment (AA), as required by the Habitats Directive and transposing Regulations, is being undertaken alongside the preparation of the SEA and the preparation of the Plan. The AA will provide further consideration of potential impacts upon, inter alia, the River Boyne and Blackwater SAC and SPA as well as Natura 2000 sites in the wider area (see Figure 4.2). The findings of the AA will be integrated into the SEA.

### 4.3.2 Water Framework Directive Registers of Protected Areas

Under the Water Framework Directive (see Section 4.6), there are a number of entries to the Registers of Protected Areas (RPAs) arising from ecological value. These are the River Boyne and Blackwater SAC and SPA and the River Boyne *Salmonid Water* (see Figure 4.3).

### 4.3.3 Proposed Natural Heritage Area

The Boyne Woods proposed Natural Heritage Area (pNHA) is located downstream to the north east of Navan (see Figure 4.1). 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. pNHAs were published on a non-statutory basis in 1995, but have not since been statutorily proposed or designated.

### 4.3.4 CORINE Land Cover Mapping

CORINE land cover mapping<sup>4</sup> for Navan for the year 2006 is shown on Figure 4.4. The main types of cover in the plan area are *Discontinuous Urban Fabric* - indicative of the built area of the town - and *Pastures* and *Complex Cultivation Patterns* - indicative of the semi-natural habitats which are used for agricultural uses in the areas beyond the built envelope of the town.

The Plan designates Stands of Trees of Special Amenity Value and these are shown on Figure 4.5. The Plan also designates Individual Trees of Special Amenity Value and these will be considered by the SEA. Species which occur in the plan area including those listed on Schedule 5 of the Wildlife Act 1976, such as bats, will be considered by the SEA as will

<sup>4</sup> 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 at the County level. 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.

ecological connectivity within the town and non-designated habitats.

#### **4.3.5 Ecological Networks and Connectivity**

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. They are composed of linear features, such as treelines, hedgerows and rivers/streams, which provide corridors or stepping stones for wildlife species moving within their normal range. They are important for the migration, dispersal and genetic exchange of species of flora and fauna particularly for mammals, especially for bats and small birds and facilitate linkages both between and within designated ecological sites, the non-designated surrounding countryside and the more urban areas of the County.

Important ecological networks comprise a variety of features including the River Blackwater, the River Boyne, various agricultural lands, stands of trees and hedgerows.

#### **4.3.6 Other Protected Species/Habitats**

In addition to certain species and habitats already mentioned above, other species are protected under law wherever they occur, such as:

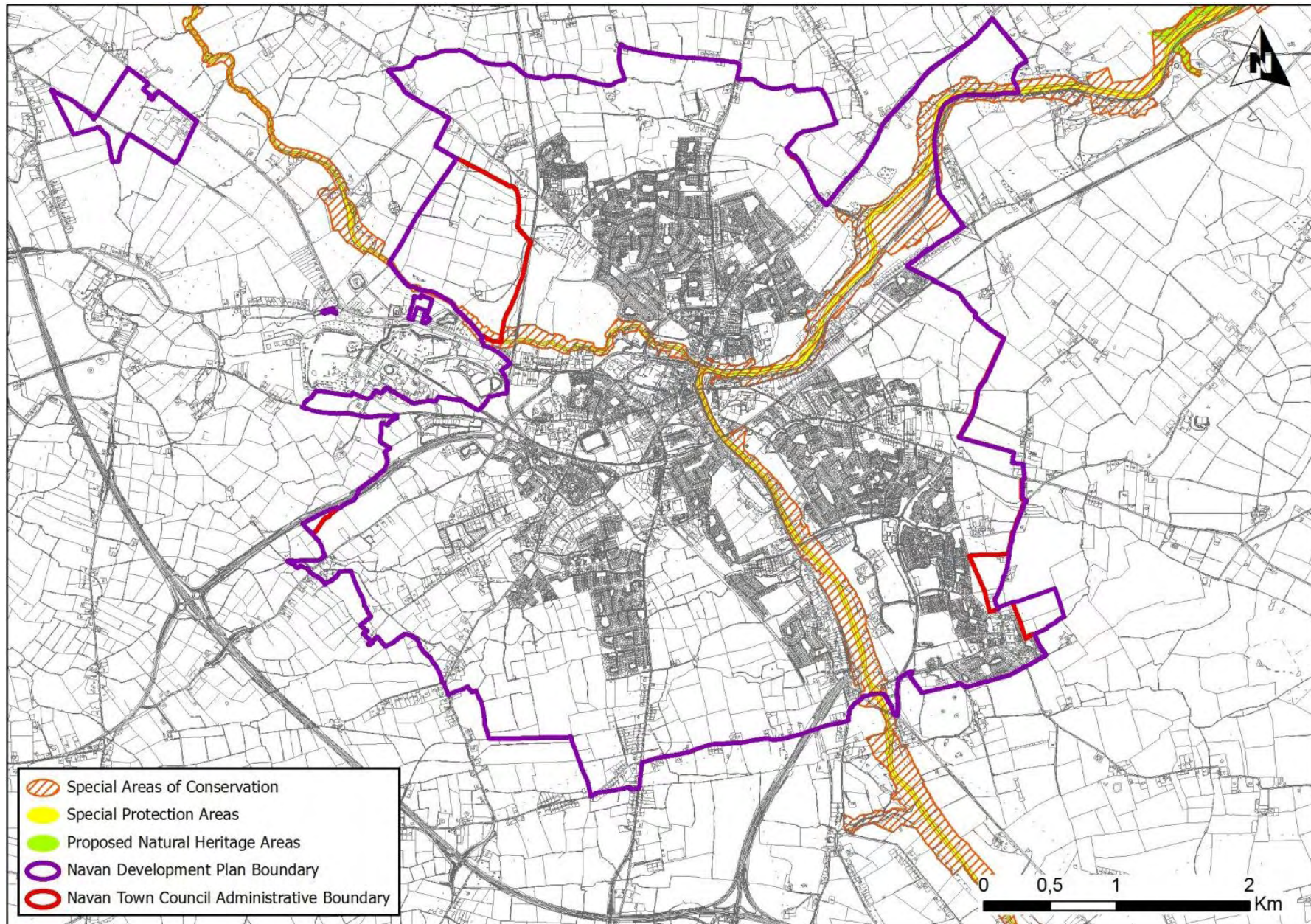
- 'Protected Species and natural habitats' as defined in the Environmental Liability Directive (2004/35/EC) and European Communities (Environmental Liability) Regulations 2008 including annexed habitats and species listed under Annexes I, II and IV of the EU Habitats Directive and Annex I of the EU Birds Directive;
- Species/Habitats legally protected under the Flora Protection Order in the Wildlife (Amendment) Act 2000;
- Other species of flora and fauna and their key habitats which are protected under the Wildlife Acts 1976-2000 including all native mammals;
- Stepping stones and ecological corridors including nature conservation

sites (other than Natura 2000 sites), habitats and species locations covered by Article 10 of the Habitats Directive.

#### **4.3.7 Existing Problems**

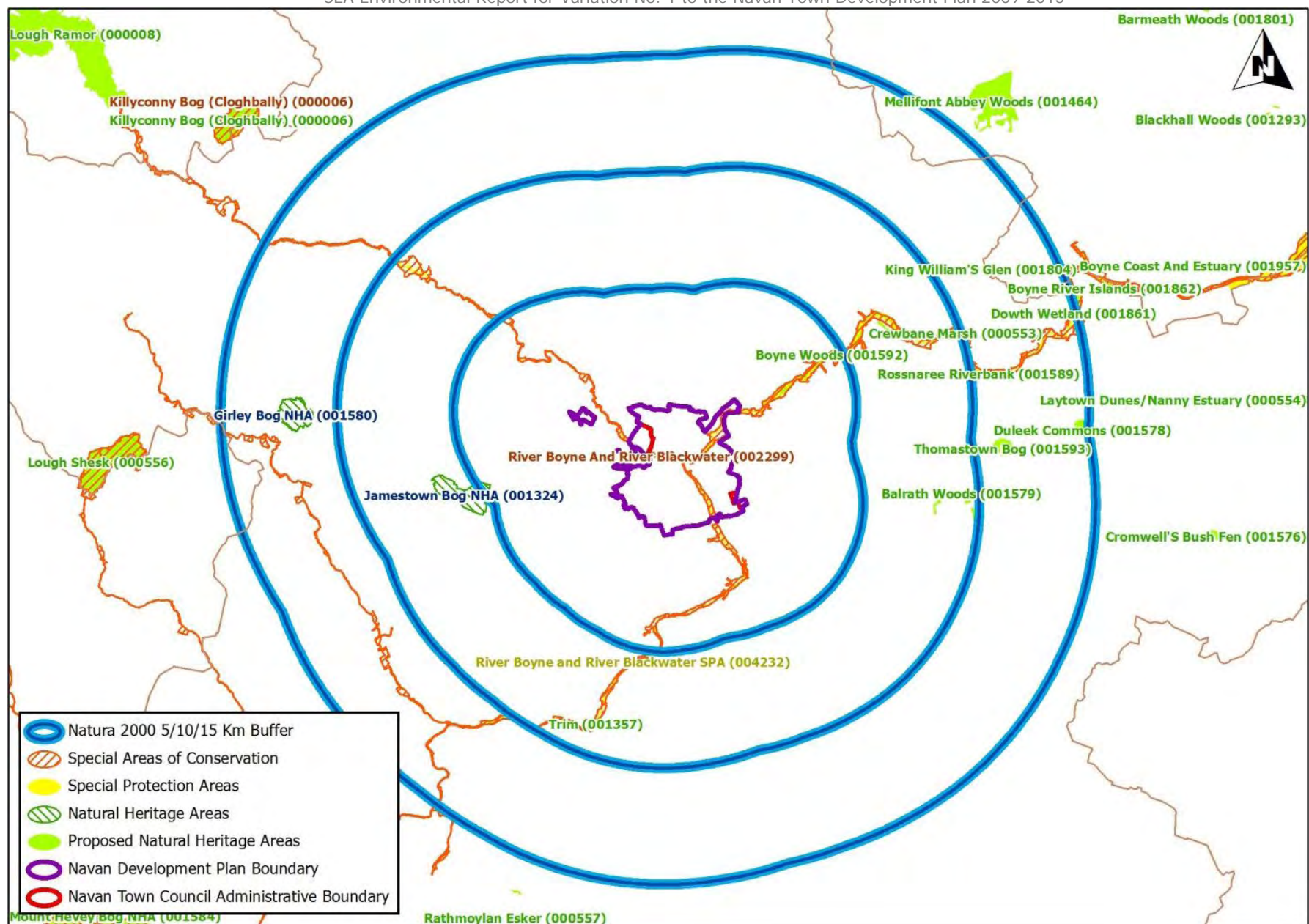
Previous developments such as residential, commercial and transportation have resulted in loss of biodiversity and flora and fauna however legislative objectives governing biodiversity and fauna were not identified as being currently conflicted with.





**Figure 4.1 SAC, SPA and pNHA within and in the vicinity of the Plan area**  
Source: NPWS (datasets downloaded August, 2013)

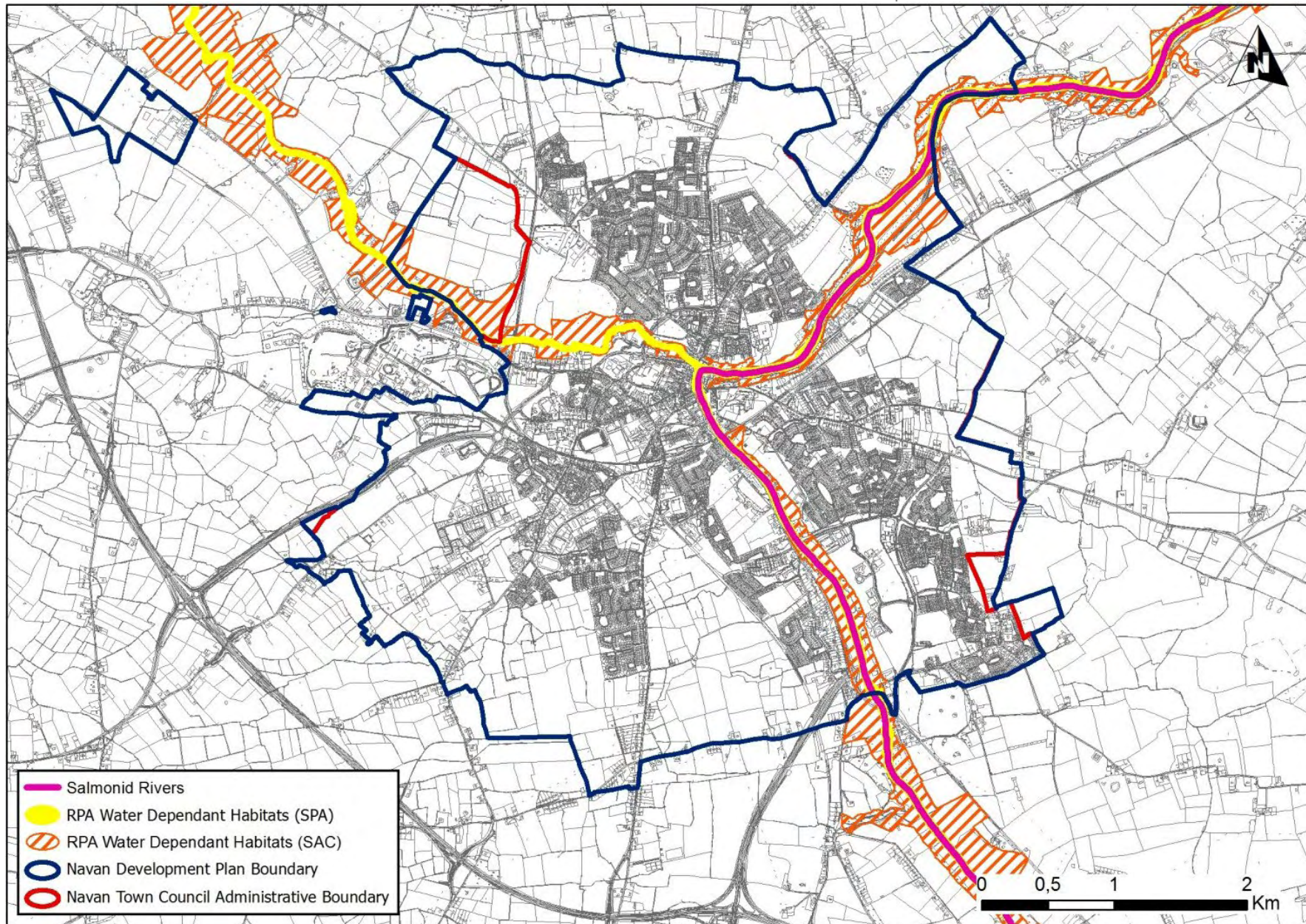




**Figure 4.2 SACs, SPAs, NHAs and pNHAs in the wider area**

Source: NPWS (datasets downloaded August, 2013)

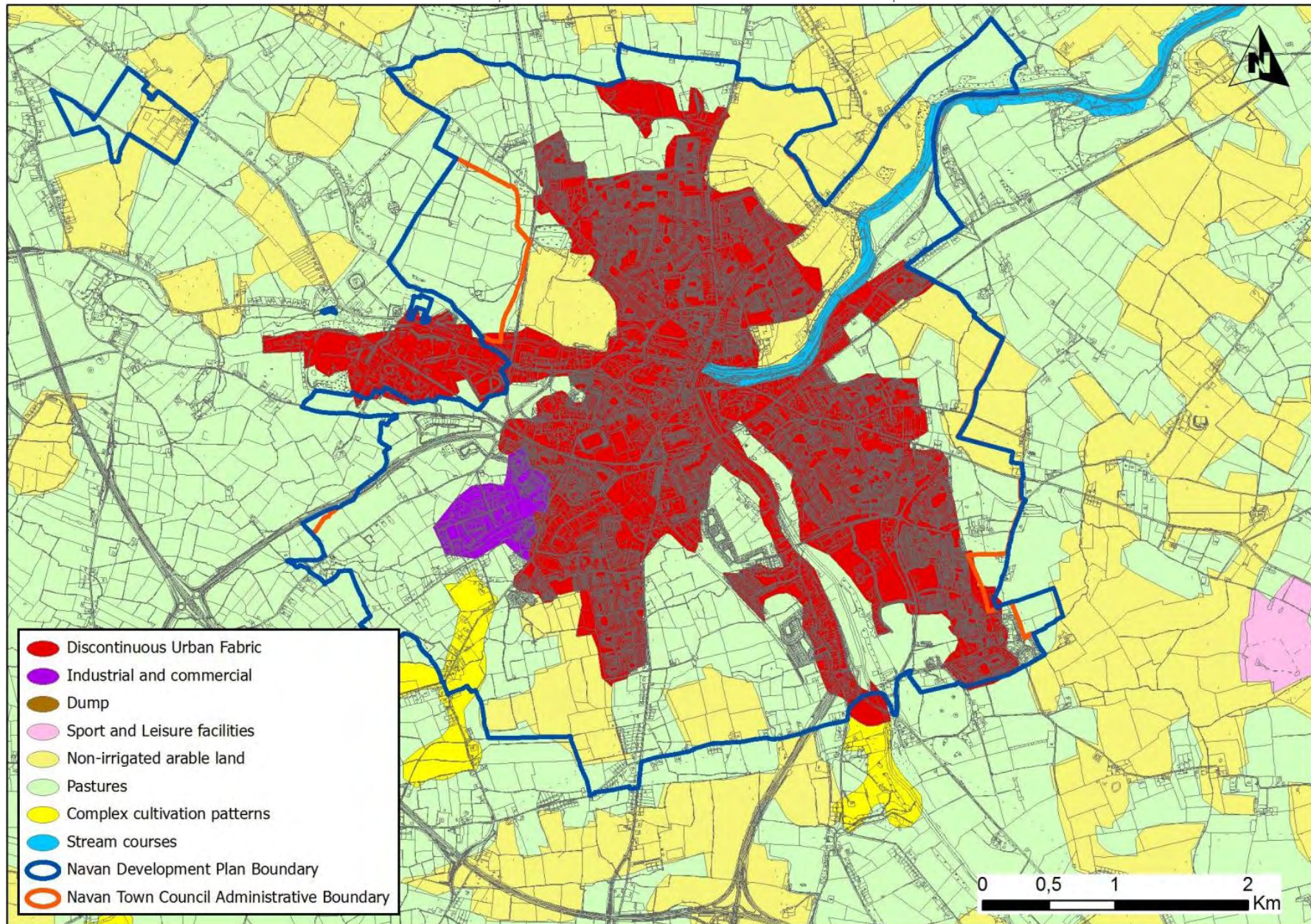




**Figure 4.3 Entries of Ecological Value to the WFD Registers of Protected Areas**

Source: NPWS (datasets downloaded August, 2013)

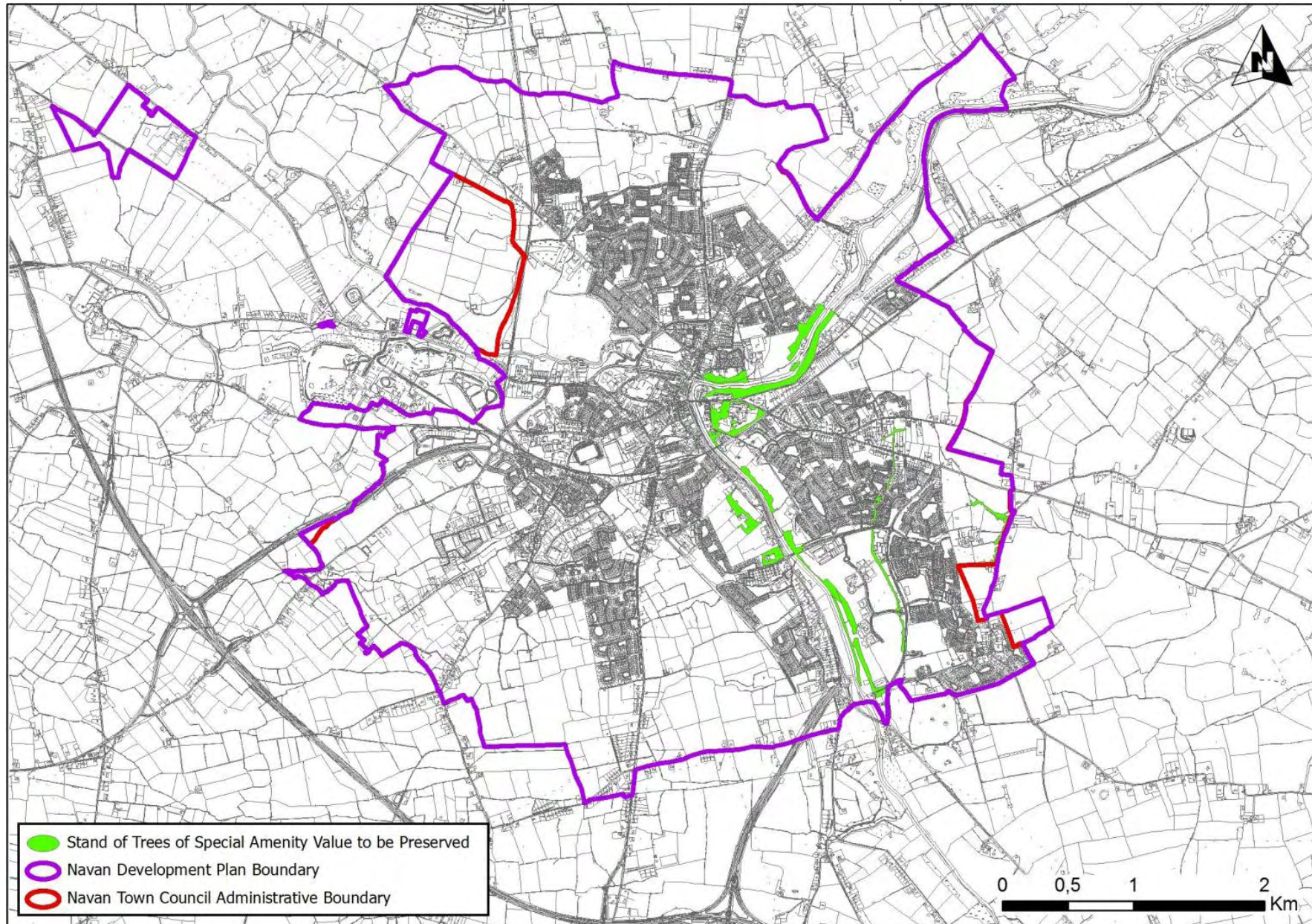




**Figure 4.4 CORINE Land Cover Data 2006**

Source: EPA (2009)





**Figure 4.5 Stands of Trees of Special Amenity Value**

Source: Meath County Council (2013)



## 4.4 Population and Human Health

### 4.4.1 Population

An Post Geodirectory data indicates that the current population of Navan is c.30,500 persons at time of writing. The population of Navan and Environs as per Census 2011 was 28,559 persons.

The period from 1996 to 2011 saw unprecedented growth which was amongst the highest experienced by any urban centre in the country. Overall the Navan Town and Environs population increased 205% in the 15 years between 1996 and 2011.

### 4.4.2 Human Health

Human health has the potential to be impacted upon by 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). 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 Variation.

### 4.4.3 Existing Problems

The Navan and Mid Meath Public Water Supply is listed on the EPA's most recent (Q3 2013) Remedial Action List (a list of public water supplies where remedial action is required to ensure compliance with drinking water standards) due to *Treatment and Management Issues*.

The Strategic Flood Risk Assessment (SFRA) undertaken alongside the preparation and adoption of the Variation has identified lands that are at elevated levels of flood risk within the Plan area. All recommendations made by the SFRA in respect of these areas have been integrated into the Variation.

## 4.5 Soil

### 4.5.1 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.

### 4.5.2 Soil Types

Soil types, as classified by Teagasc in co-operation with the Forest Service, EPA and GSI are mapped on Figure 4.6. Areas outside of the built areas of the town are underlain by various types of soils including *deep well drained mineral soils*, both basic and acidic, as well as *deep poorly drained mineral basic soils*. *Shallow well drained soils* underlie the valleys of the Boyne and Blackwater while *mineral alluvium* underlies their flood plains.

### 4.5.3 Orebodies

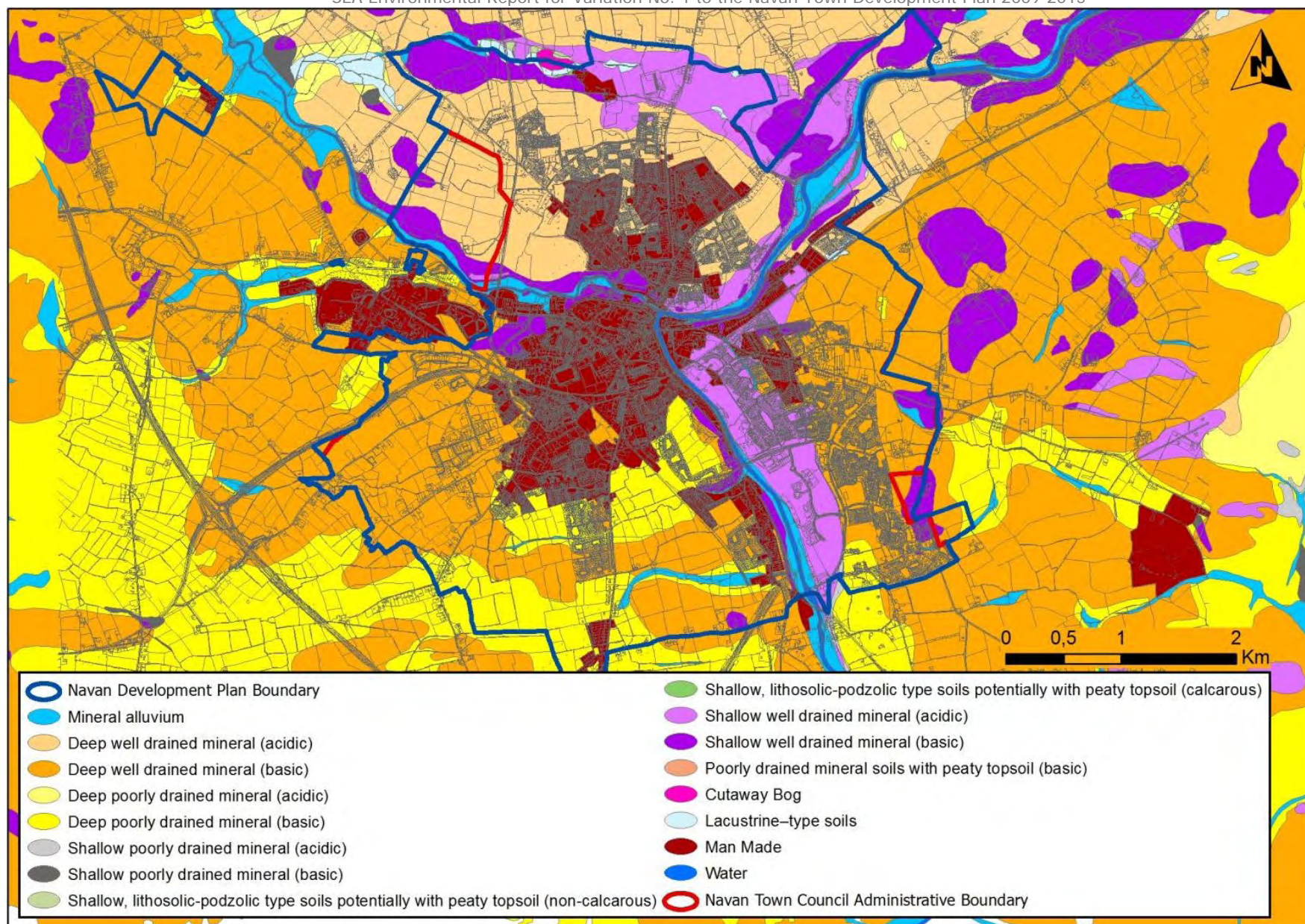
Tara Mines, the largest zinc mine in Europe, is located just off the Kells Road on the north western fringe of the town and is operated by the Boliden Group.

The orebody outline, which is indicative, and the boundaries of Boliden's IPPC Licences are

shown on Figure 4.7. The active mine may present a future constraint to certain development in its vicinity due to emissions or vibrations.

#### **4.5.4 Existing Problems**

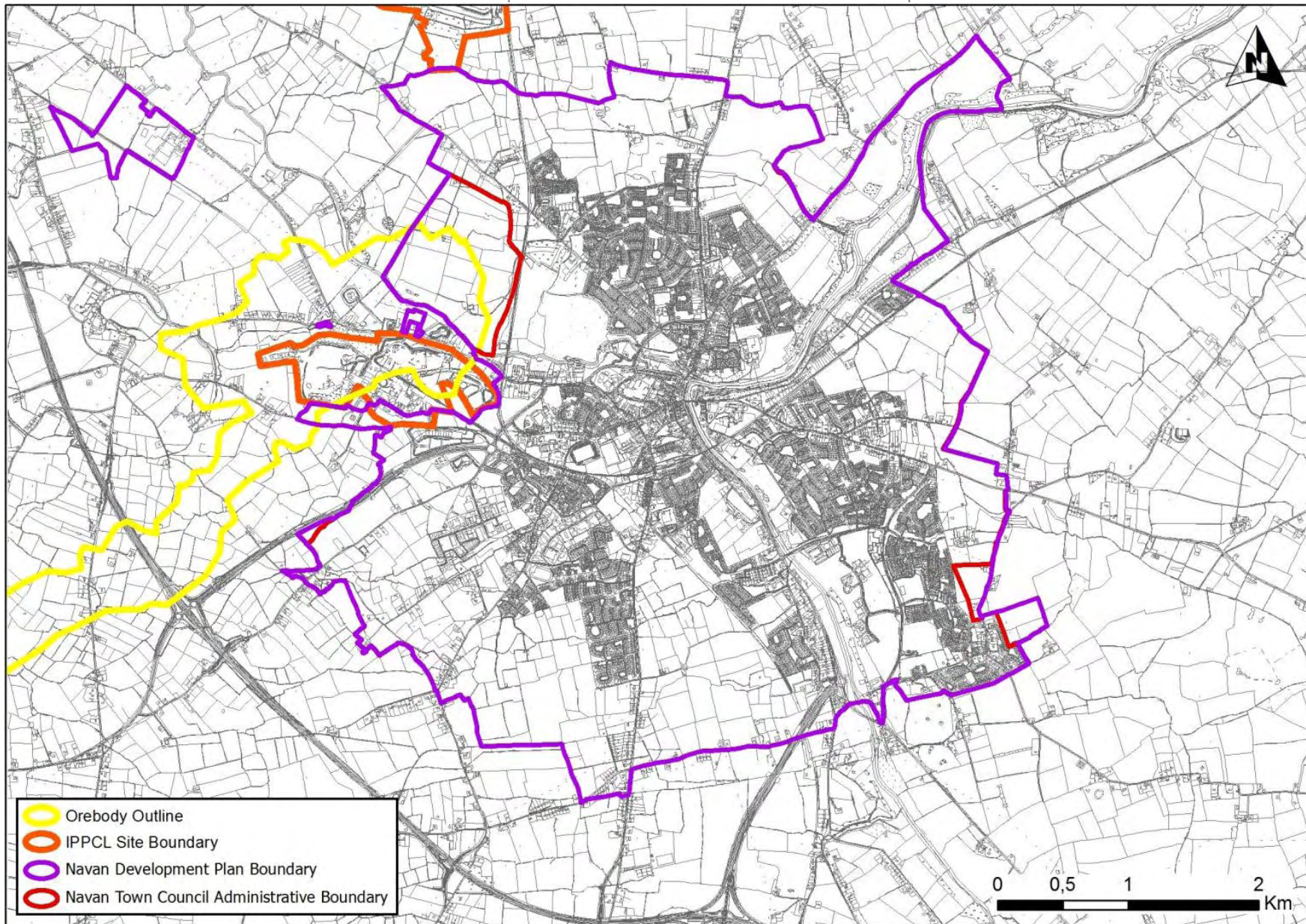
Legislative objectives governing soil were not identified as being conflicted with.



**Figure 4.6 Soil Type**

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





**Figure 4.7 Orebody Outline and IPPCL Site Boundary**

Source: Boliden Group (2013)

## 4.6 Water

### 4.6.1 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.

## 4.6.2 The Water Framework Directive

### 4.6.2.1 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 are required to coordinate their policies and operations so as to maintain the good status of water bodies which are currently unpolluted and improve polluted water bodies to good status by 2015.

Article 4 of the WFD sets out various exemptions for deterioration in status caused as a result of certain physical modifications to water bodies. This is provided: all practicable mitigation measures are taken; there are reasons of overriding public interest or the benefits to human health, safety or sustainable development outweigh the benefits in achieving the WFD objective; there are no better alternatives; and the reasons for the physical modification are explained in the relevant river basin management plan.

### 4.6.2.2 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. Navan falls within the Eastern RBD.

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.

### 4.6.2.3 River Basin Management Plans

Local Authorities, including Meath County Council, have prepared Eastern River Basin Management Plan which is implemented in order to help protect and improve waters in the county and wider RBDs. The Management Plans provide specific policies for individual



river basins in order to implement the requirements of the WFD.

### 4.6.3 Surface Water

#### 4.6.3.1 WFD Surface Water Status

The WFD defines 'surface water status' as the general expression of the status of a body of surface water, determined by the poorer of its ecological status and its chemical status. Thus, to achieve 'good surface water status' both the ecological status and the chemical status of a surface water body need to be at least 'good'.

Ecological status is an expression of the structure and functioning of aquatic ecosystems associated with surface waters. Such waters are classified as of "good ecological status" when they meet Directive requirements.

Chemical Status is a pass/fail assignment with a failure defined by a face-value exceedance of an Environmental Quality Standards (EQS) for one or more Priority Action Substances (PAS) listed in Annex X of the Water Framework Directive (WFD). The EQS values for individual PAS substances are set at European level. Good surface water chemical status means that concentrations of pollutants in the water body do not exceed the environmental limit values specified in the Directive.

Figure 4.8 maps the status of the River Blackwater and River Boyne, as currently available from the EPA<sup>5</sup>. The River Boyne is identified as being of *moderate status* upstream, through and downstream of Navan. This does not currently meet the Water Framework Directive objective of *good status*. There is no status currently identified for the section of the River Blackwater that passes through Navan. The River Blackwater has been monitored by the EPA within Navan, upstream of Pollboy/Slane Road Bridge. The most recent available Q-value, or Biotic Index Rating, (EPA, 2012) is Q3-4, which is indicative of *moderate status*. This Q-value does not meet the Water Framework Directive objective of *good status*.

The Boyne becomes transitional downstream of Navan and upstream of Drogheda where it is identified as being of *good status*.

#### 4.6.3.2 Quality of Rivers

River water quality within the County is monitored by the EPA at a number of locations. Good status as defined by the WFD equates to approximately *Q4* in the national biological classification scheme of rivers as set out by the EPA.

Figure 4.9 maps recent Q values. Monitoring locations are of *moderate* or *poor* status.

### 4.6.4 Ground Water

#### 4.6.4.1 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.

#### 4.6.4.2 WFD Groundwater Status

For groundwater bodies, the approach to classification is different from that for surface water. For each body of groundwater, both the chemical status and the quantitative must be determined. Both have to be classed as either *good* or *poor*. The WFD sets out a series of criteria that must be met for a body to be classed as good chemical and quantitative status.

The status of the groundwater underlying both the town and surrounding area is currently good (see Figure 4.10) and meets the requirements as set out by the WFD Directive.

#### 4.6.4.3 Aquifer Productivity and Vulnerability

The Geological Survey of Ireland (GSI) rates aquifers according to both their productivity and vulnerability to pollution.

Much of the area is underlain by *Locally Important Bedrock Aquifers*. *Locally Important Sand/Gravel Aquifers* occur in a small area in the north of the Plan area. These types of aquifers are capable of yielding enough water for boreholes or springs to supply domestic, commercial and industrial uses, depending on the nature and scale of the development. *Poor Bedrock Aquifers* - which are generally

<sup>5</sup> Dataset downloaded August 2013.

unproductive – exists in the northern area of Navan. Aquifer Productivity is mapped on Figure 4.11.

Aquifer vulnerability refers to the ease with which pollutants of various kinds can enter underground water. Figure 4.12 maps aquifer vulnerability for Navan – much of the area is identified as being of *moderate* or *high vulnerability* with areas of *extreme* vulnerability dispersed throughout.

#### 4.6.5 Register of Protected Areas

In addition to the entries to the WFD Registers of Protected Areas (RPAs) which are listed by virtue of ecological value, the stretch of the Blackwater that flows within the Plan boundary has been listed on the RPA for *Nutrient Sensitive Rivers*, the groundwater underlying both the town and surrounding area is listed on the RPA for *Drinking Water (Groundwater)* and a stretch of the River Boyne downstream of the town centre and stretching from within to downstream of the Plan area is listed on the RPA for *Drinking Water (Rivers)*. These entries to the RPAs are shown on Figure 4.13.

#### 4.6.6 Flooding

##### 4.6.6.1 Introduction

Flooding is an environmental phenomenon which, as well as having causing economic and social impacts, could in certain circumstances pose a risk to human health.

##### 4.6.6.2 EU Floods Directive

European Directive 2007/60/EC on the assessment and management of flood risks requires Member States to carry out a preliminary assessment by 2011 in order to identify the river basins and associated coastal areas at risk of flooding. For such zones, flood risk maps are required to be drawn up by 2013 (this has been pushed back to 2014). Flood risk management plans focused on prevention, protection and preparedness must be established by 2015. The Office of Public Works has prepared Preliminary Flood Risk Assessment (PFRA) maps which identify areas where the risks associated with flooding might be significant. These areas, Areas for Further Assessment (AFAs), are where more detailed assessment is required to more accurately assess the extent and degree of flood risk.

##### 4.6.6.3 DEHLG Flood Risk Management Guidelines

In 2009 the DEHLG published *The Planning System and Flood Risk Management Guidelines* for Planning Authorities. These are aimed at ensuring a more consistent, rigorous and systematic approach which will fully incorporate flood risk assessment and management into the planning system. Planning authorities are required to undertake flood risk identification, assessment and management processes as appropriate when preparing Development Plans and other plans and in the consideration of applications for planning permission.

##### 4.6.6.4 SFRA

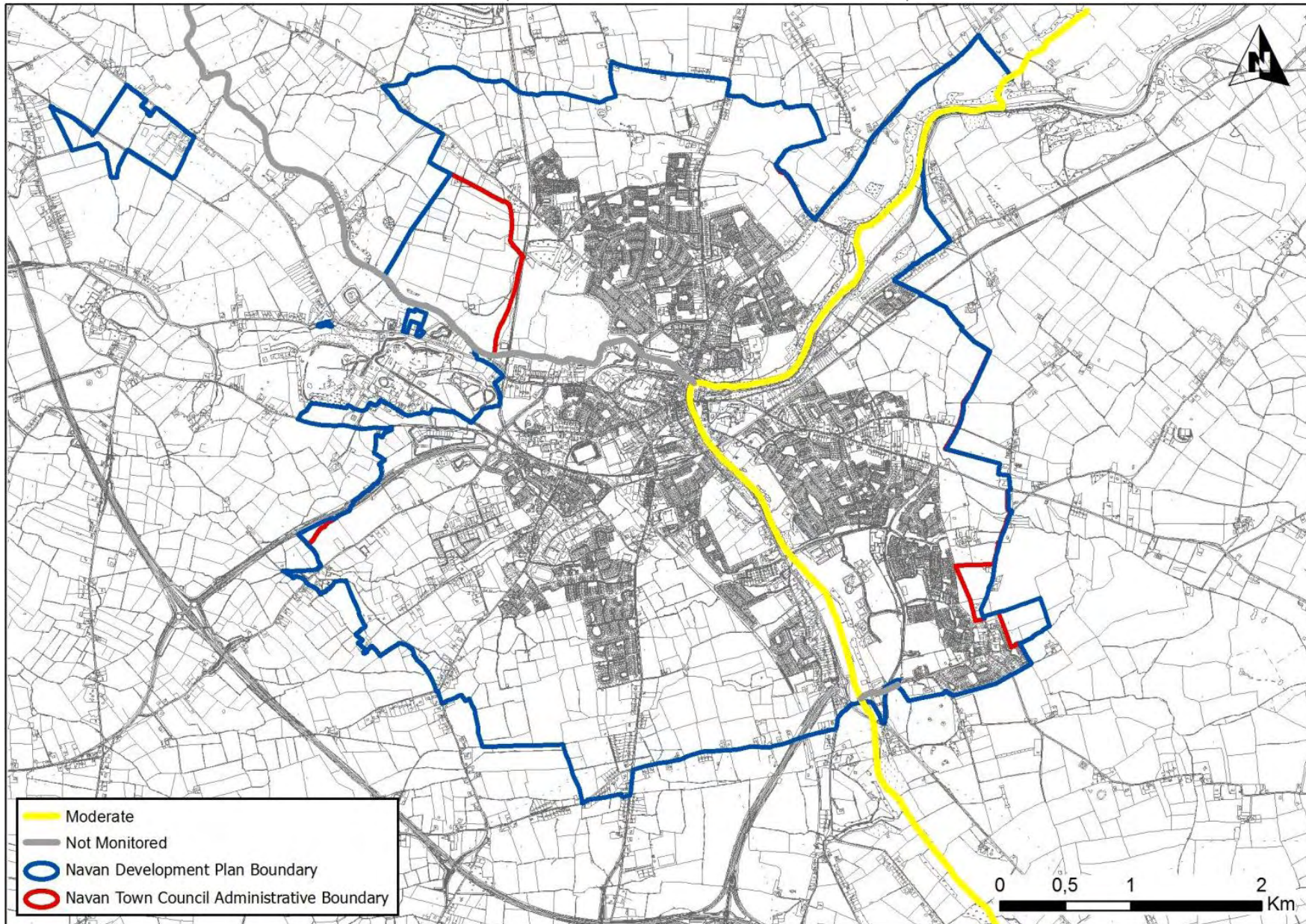
A Strategic Flood Risk Assessment (SFRA) has been undertaken alongside the preparation and adoption of the Variation. This assessment has identified lands that are at elevated levels of flood risk within the Plan area (see Figure 4.14).

All recommendations made by the SFRA have been integrated into the Variation.

#### 4.6.7 Existing Problems

Based on available water data, various water bodies within the Plan area will need improvement in order to comply with the objectives of the WFD.

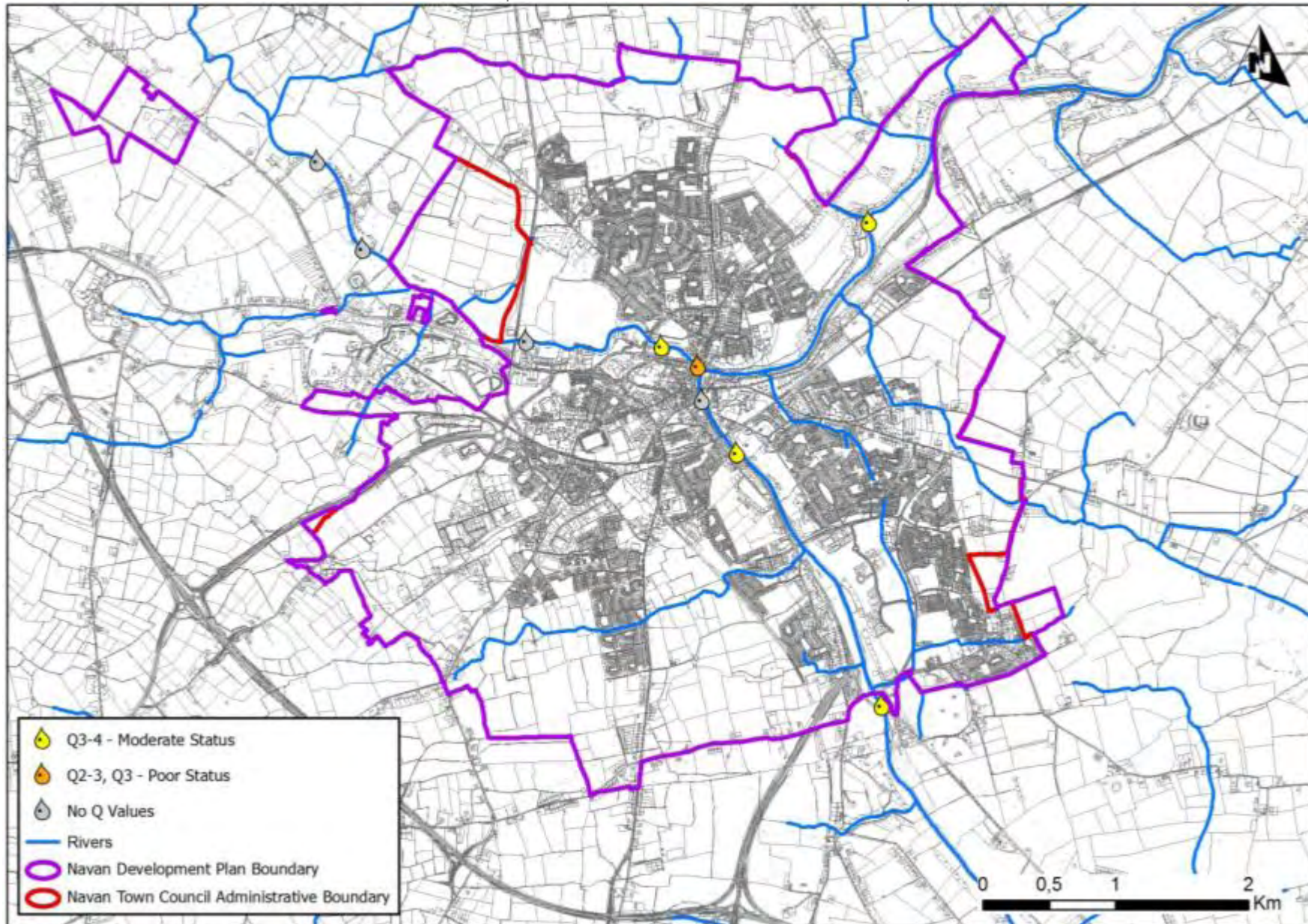
The SFRA has identified lands that are at elevated levels of flood risk within the Plan area. All recommendations made by the SFRA in respect of these areas have been integrated into the Variation.



**Figure 4.8 WFD Surface Water Status**

Source: EPA (2011; datasets downloaded August, 2013)

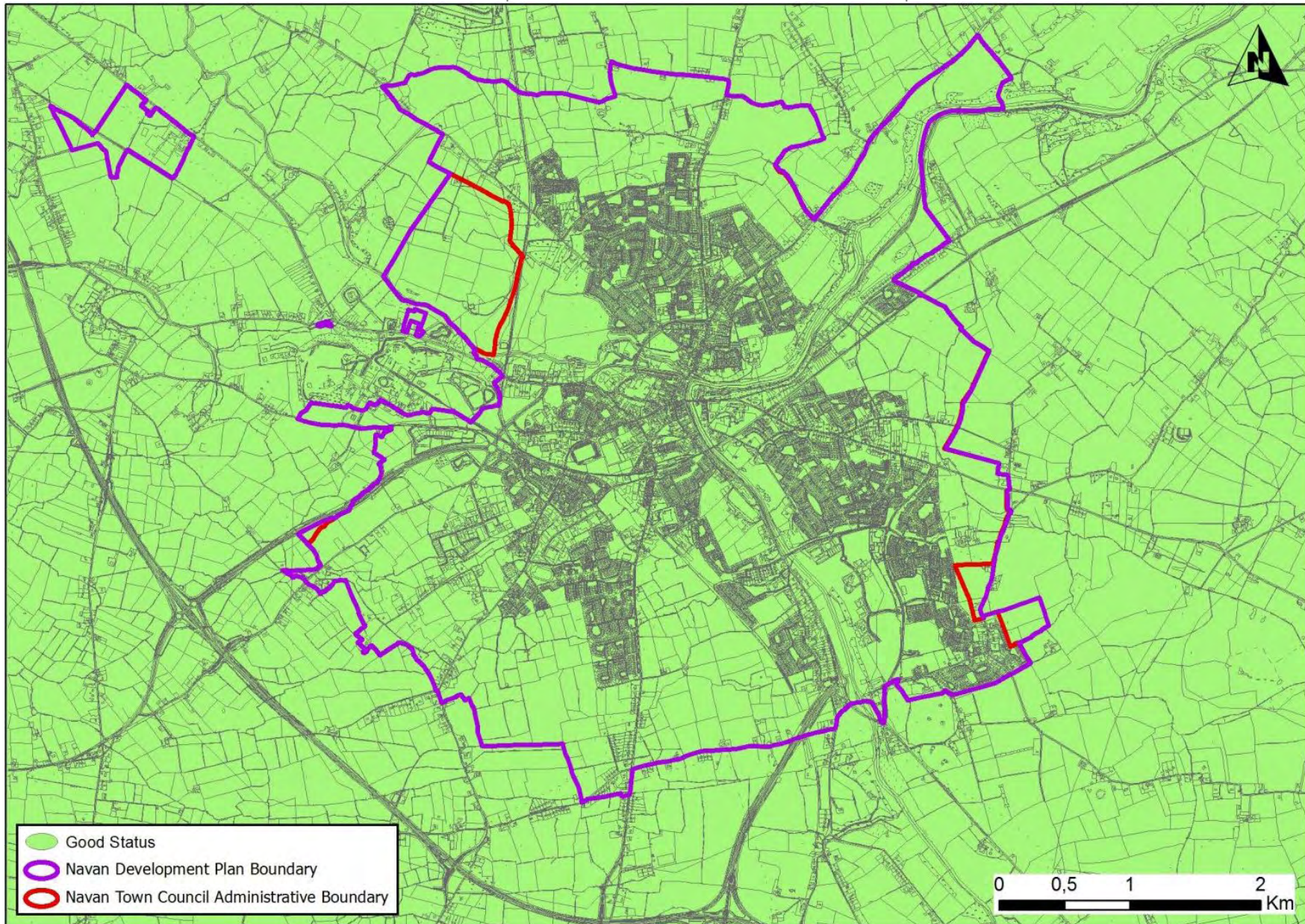




**Figure 4.9 Q-Values at Points on Rivers**

Source: EPA (Various)

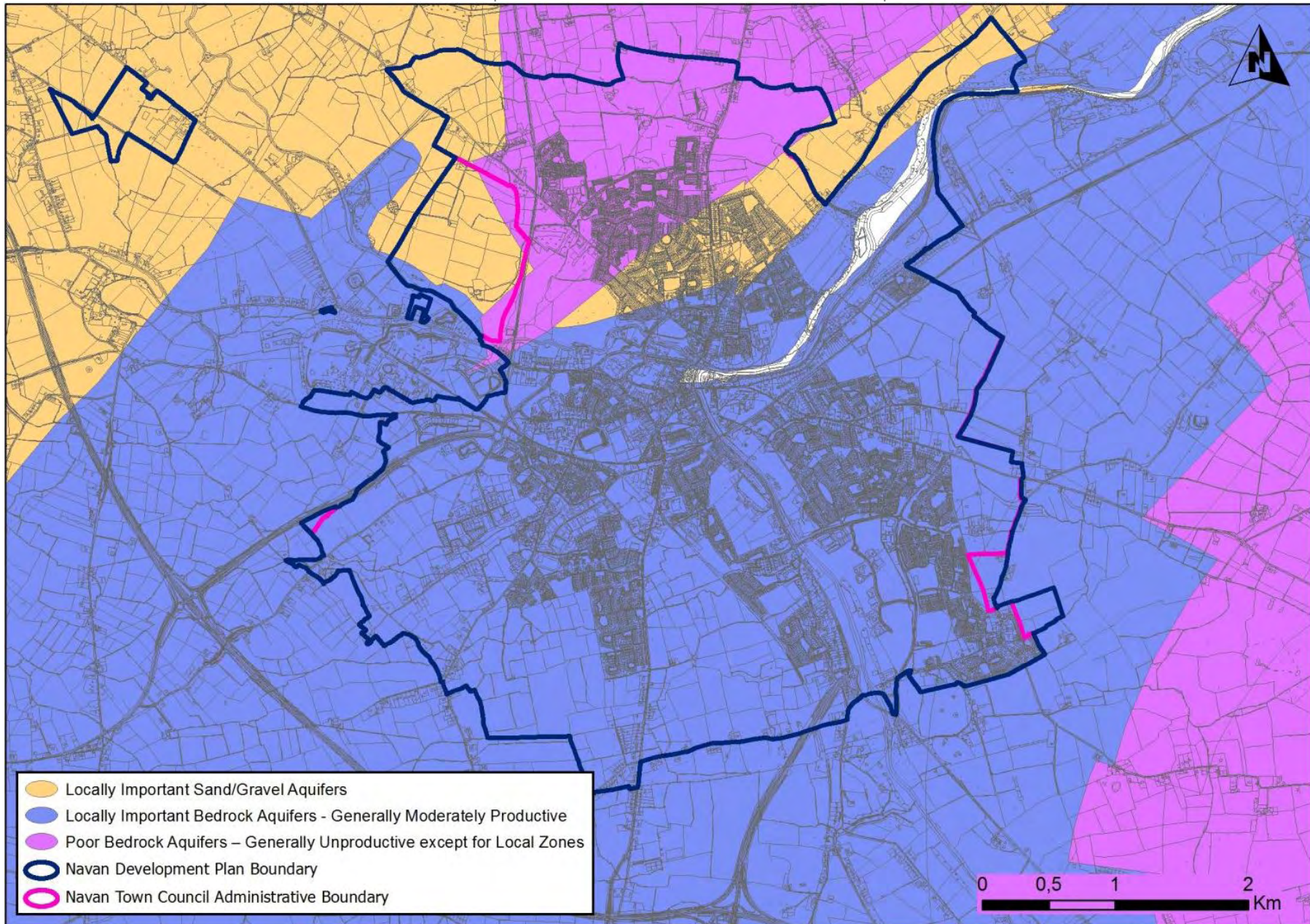




**Figure 4.10 WFD Status of Groundwater**

Source: EPA (2011; datasets downloaded August, 2013)

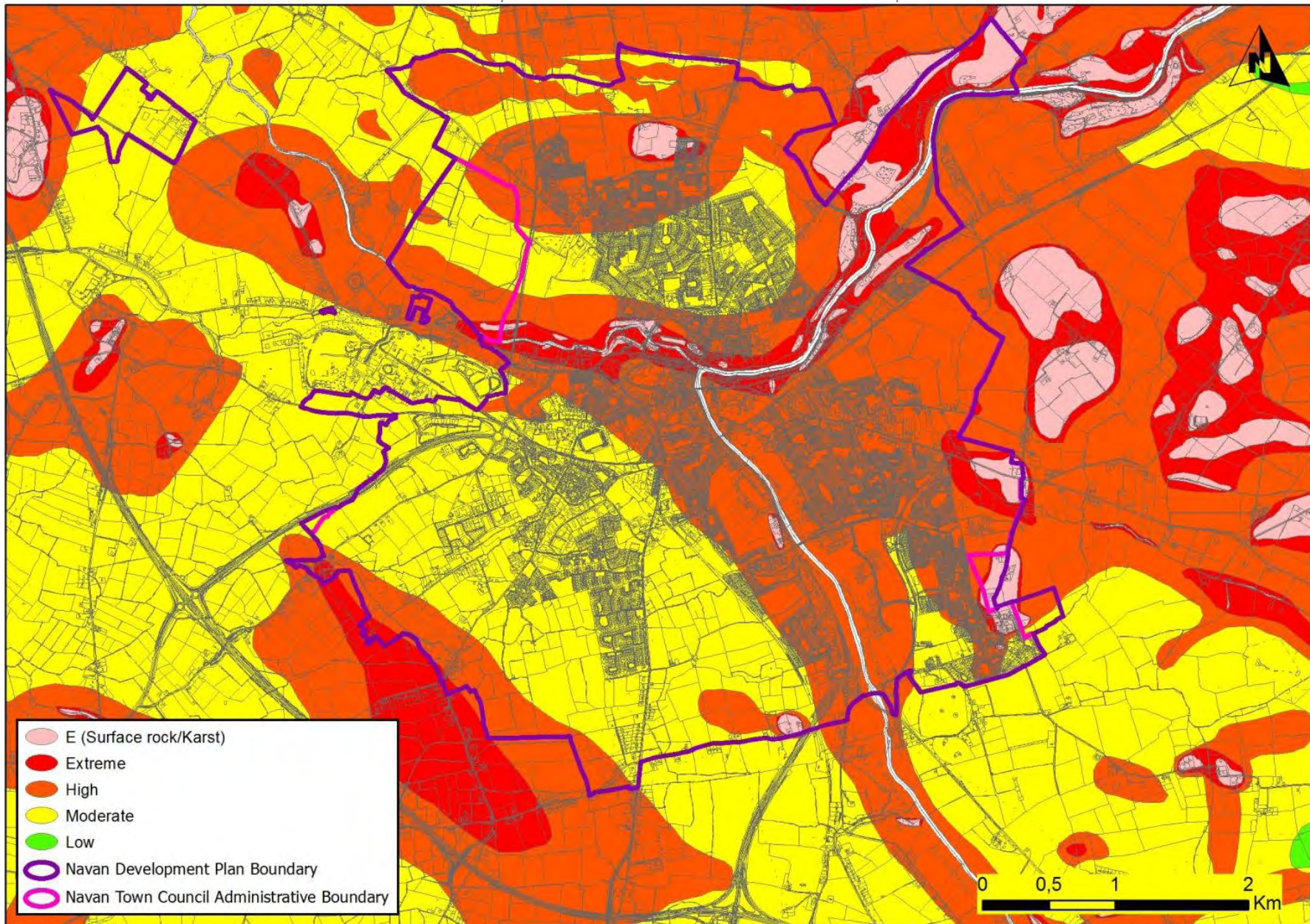




**Figure 4.11 Aquifer Productivity**

Source: GSI (2006)

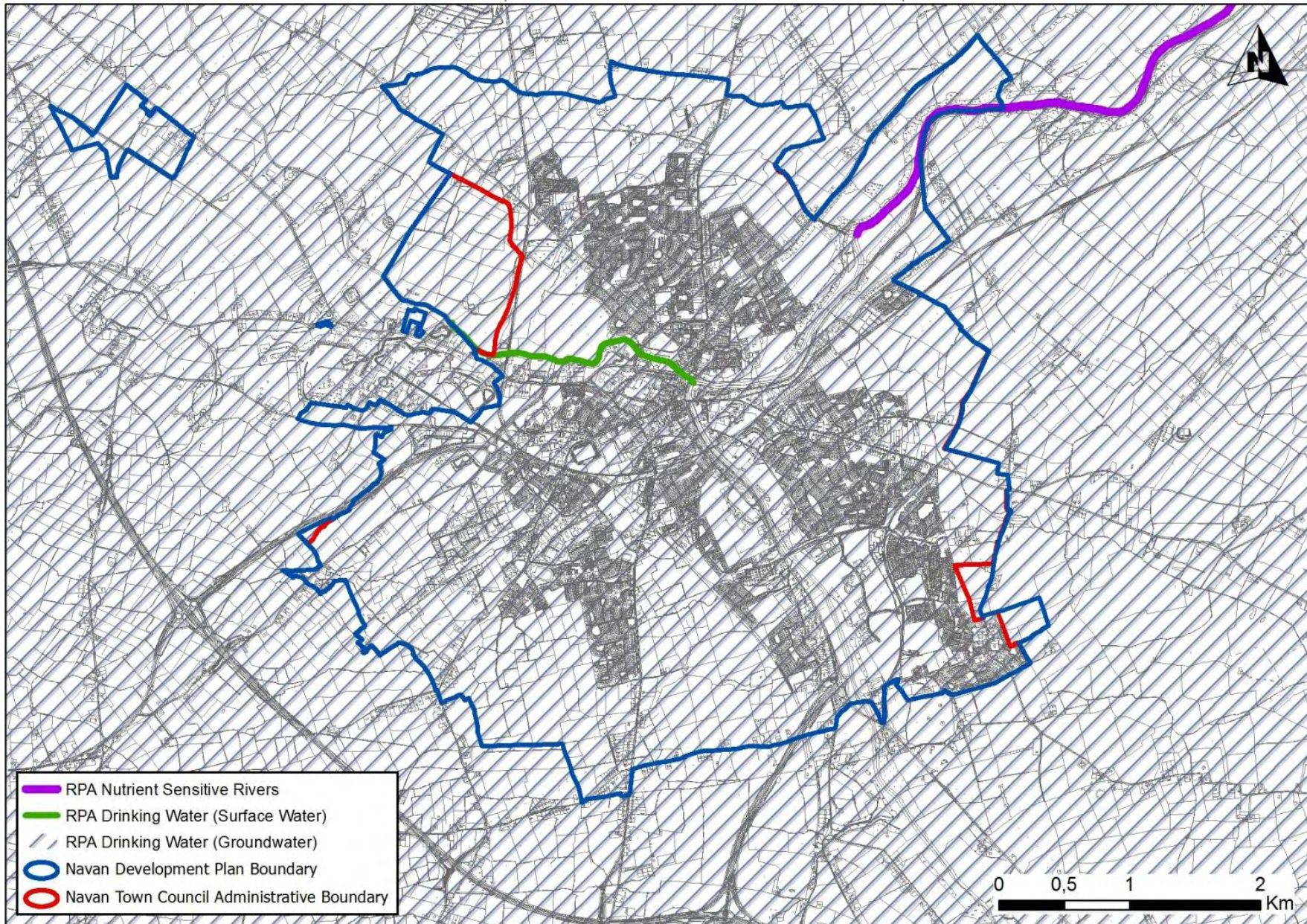




**Figure 4.12 Aquifer Vulnerability**

Source: GSI (2006)

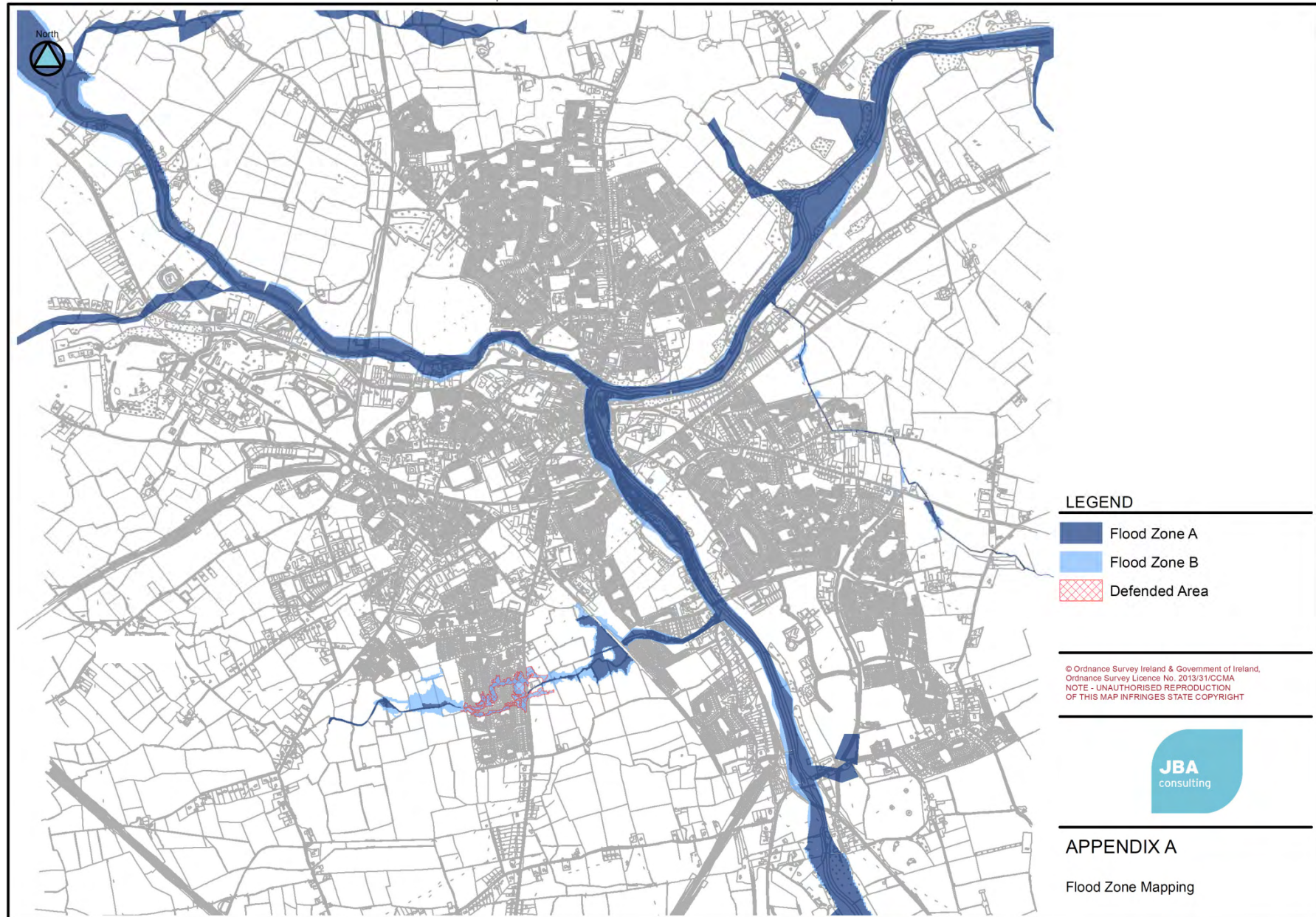




**Figure 4.13 WFD Entries to Nutrient Sensitive and Drinking Water RPAs**

Source: EPA (2011; datasets downloaded August, 2013)





**Figure 4.14 Flood Zone Mapping**

Source: JBA

of the country - excluding Zones A, B and C.

## 4.7 Air and Climatic Factors

### 4.7.1 Ambient Air Quality

#### 4.7.1.1 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. 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 areas inhabitants. The EU Directives include details regarding how ambient air quality should be monitored, assessed and managed.

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 polycyclic aromatic hydrocarbons, arsenic, nickel, cadmium and mercury in ambient air.

#### 4.7.1.2 Air Zones

In order to comply with the directives mentioned above, 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: 21 Other cities and large towns including 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

Navan is in Zone C where air quality is currently identified as being "good". The EPA's (EPA, 2013) *Air Quality in Ireland 2012* identifies that air quality in Ireland continues to be good, with no exceedances for the pollutants measured in 2012.

### 4.7.2 Noise

Noise is unwanted sound. The Environmental Noise Regulations (SI No. 140 of 2006) transpose into Irish law the EU Directive 2002/49/EC relating to the assessment and management of environmental noise, which is commonly referred to as the Environmental Noise Directive or END. The END defines a common approach intended to avoid, prevent or reduce on a prioritised basis the harmful effects, including annoyance, due to exposure to environmental noise. The END does not set any limit value, nor does it prescribe the measures to be used in the action plans, which remain at the discretion of the competent authorities. Limit values are left to each member state. At this point in time, Ireland does not have any statutory limit values.

### 4.7.3 Climatic Factors

The key issue involving the assessment of the effects of implementing the plan on climatic factors relates to greenhouse gas emissions arising from transport. It is noted that the Variation contains a number of actions which respond to potential threats to environmental components arising from a changing climate.

Flooding (see Section 4.6.6) - is influenced by climatic factors and the implications of climate change with regard to flood risk in relevant locations have been considered by the SFRA which has been undertaken for the Variation. There are emerging objectives relating to climate adaptation and that there is likely to be future Guidance for climate change proofing of land use plan provisions as is flagged in the National Climate Change Adaptation Framework (DECLG, 2012). Some of these objectives might relate to green infrastructure which can achieve synergies with regard to the following:

- Provision of open space amenities;
- Sustainable management of water;

- Protection and management of biodiversity;
- Protection of cultural heritage; and
- Protection of protected landscape sensitivities.

In 2009, Ireland's greenhouse gas emissions decreased across all sectors due to the effects of the economic downturn with a decline in total emissions of 7.9 per cent. In 2010, Ireland's emissions fell by a further 0.7 per cent.

Ireland's emissions profile has changed considerably since 1990, with the contribution from transport more than doubling and the share from agriculture reducing since 1998. Travel is a source of:

1. Noise;
2. Air emissions; and
3. Energy use (38.8% of Total Final Consumption in Ireland in 2010 was taken up by transport, the largest take up of any sector)<sup>6</sup>.

Land-use planning contributes to what number and what extent of journeys occur. By addressing journey time through land use planning and providing more sustainable modes and levels of mobility, noise and other emissions to air and energy use can be minimised. Furthermore, by concentrating populations, greenfield development - and its associated impacts - can be minimised and the cost of service provision can be reduced.

Maximising sustainable mobility will also help Ireland meet its emission target for greenhouse gases under the 2020 EU Effort Sharing target which commits Ireland to reducing emissions from those sectors that are not covered by the Emissions Trading Scheme (e.g. transport, agriculture, residential) to 20% below 2005 levels.

#### **4.7.4 Existing Problems**

Legislative objectives governing air and climatic factors in Navan were not identified as being conflicted with.

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<sup>6</sup> Sustainable Energy Ireland (2011) *Energy in Ireland 1990 – 2010*



## 4.8 Material Assets

### 4.8.1 Water Services

#### 4.8.1.1 Irish Water and Timely Provision of Infrastructure

In April 2012, the Irish Government decided to establish Irish Water as an independent State owned subsidiary within the Bord Gáis Éireann Group. Irish Water is Ireland's new national water utility, bringing the water services of the 34 Irish Local Authorities together into one national service provider, with the aim of providing a secure, high quality and sustainable service to the Irish public. Irish Water from the 1<sup>st</sup> January 2014 is responsible for the operation of public water and wastewater services and provision of these services to over 1.5 million households across Ireland. This involves an expenditure of circa €1.1 billion per annum in the management of national water and wastewater assets, maintenance of the water and wastewater systems, investment and planning, managing capital projects and customer care and billing.

The responsibility for the provision of these services now lies with Irish Water, supported by Meath County Council, as appropriate.

#### 4.8.1.2 Waste Water Performance

The waste water treatment plant at Farganstown that serves the Plan area failed to meet the overall requirements of the Urban Waste Water Regulations in 2011 and 2010 as it failed requirements on:

- Total nitrogen in waste water discharged to sensitive areas from urban areas >10,000 PE (in 2011 it failed because of the quality of the discharge and in 2010 it failed because of the amount of samples taken and the quality of the discharge).
- (In 2011) Total phosphorous in waste water discharged to sensitive areas from urban areas >10,000 PE (because of the amount of samples taken and the quality of the discharge).

#### 4.8.1.3 Waste Water Capacity and Demand

The waste water treatment plant has a design capacity of 40,000 PE and can be upgraded to 60,000 PE without requiring new EIS. Inlet

works, etc. have a design capacity of 60,000 PE

The plant has an EPA License for 50,000 PE.

There are considerable fluctuations in the average recorded flows within the plant which have varied from 38,000 PE (Annual Environmental Report, 2009) to 29,000 PE (Annual Environmental Report, 2010).

Water Services in the Council estimate that the current average load is in the range 32,000 – 33,000 PE and that there is approximately 12,000 PE available.

There may be constraints to serving new development at certain locations due to the network (rather than due to capacity in the plant).

#### 4.8.1.4 Planned Investment/Works Needed for Waste Water

The Navan Sewerage Scheme (network rehabilitation and waste water treatment plant improvements) was included in the Meath County Assessment of Needs (2009) as No. 1 in the *Prioritised List of Schemes/ Contracts for inclusion/retention* in the Water Services Investment Programme (WSIP) at Planning Stage.

Works to the extensive existing sewer network are required as substantial and unquantified volumes of storm water and groundwater are entering the system, causing a lack of capacity in many sewers and pumping stations and frequent overflowing at pumping stations. These works are required to satisfy conditions included in the EPA License for the waste water treatment plant. The project is not currently included in the 2010-2013 WSIP.

#### 4.8.1.5 Drinking Water Performance

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 which are supported by Remedial Action Lists (RALs). The RAL identifies water supplies which are not in compliance with the Regulations mentioned above.

The Navan and Mid Meath Public Water Supply is listed on the EPA's most recent (Q3 2013) Remedial Action List (a list of public water supplies where remedial action is required to ensure compliance with drinking water standards) due to *Treatment and Management Issues*. The Remedial Action List identifies that the plant will *Improve operation of water treatment plant including implementation of recommendations of EPA audit*.

#### **4.8.1.6 Capacity and Demand**

Navan's public water supply is sourced primarily from the Blackwater at Liscarton Works and augmented by Kilcarn Works on the Boyne. Liscarton produces 12,000 m<sup>3</sup> daily and Kilcarn produces 2,500 m<sup>3</sup> daily.

Water Services in the Council estimate that this output can be increased by a further 1,000 m<sup>3</sup> (5,000 PE) although this does not include commitments made by the Planning Authority with regard to extant planning permissions while also needing to retain an acceptable level of headroom.

#### **4.8.1.7 Planned Investment/Works Needed**

The Navan Mid Meath Water Supply Scheme involves the development of a new water supply from a proposed abstraction at Ballinter on the River Boyne and a new water treatment works to be constructed near Dowdstown. The Council has secured the right to abstract up to 44,000m<sup>3</sup>/day from the river Boyne at Dowdstown and in line with the approved Preliminary Report are advancing a Stage 1 WTP of 26,300m<sup>3</sup>/day (131,500 PE). The new works will supply Navan via a new reservoir which has been constructed at Carn Hill and has a capacity of 16,000m<sup>3</sup>. The Dowdstown supply will replace the existing supplies and

will have the capacity to supply the projected scheme demand of 26,300m<sup>3</sup> by 2025.

The development of the Dowdstown Water Treatment Works (which is Contract 7 of the WSIP) will be post 2016 and is subject to Department of Environment, Community and Local Government approval and funding.

Part of the WSIP (Contract 4) involves improvement works at Navan's main existing Water Treatment Plant at Liscarton. The improvement works required are an extensive upgrade and modernisation of the Plant electrics to meet current safety standards and the provision of sludge dewatering facilities to replace the existing sludge lagoons and booster pumping.

Another part (Contract 5) of the WSIP involves the laying of a trunk main between the existing Proudstown Reservoirs and the new main reservoir for Navan at Carn Hill (completed but not commissioned). This trunk main will allow the Council better manage and balance the limited capacity available from Liscarton and Kilcarn WTP's hence helping to secure a more consistent water supply to existing residents and businesses which will have public health benefits while also helping to facilitate some further development.

Contracts 4, 5 and 7 have approval under the present WSIP 2010-2013 to continue with the planning stage only.

### **4.8.2 Waste Management**

Between 2009 and 2011 both the total packaging recovered by self-complying packagers and the total collected and brought household waste have decreased (EPA National Waste Reports).

The total collected and brought household waste in Meath in 2009 amounted to 57,572 (t). This figure dropped to 55,311 (t) in 2011. The total packaging recovered by self-complying packagers in 2009 amounted to 519 (t). This figure dropped to 308 (t) in 2011 (EPA, 2013).

### **4.8.3 Transport<sup>7</sup>**

Navan functions as a major transportation mode in Co. Meath. The town is strategically located close to the M3 motorway on the N3 National Primary Road which connects Dublin to Ballyshannon via Cavan. The N51 National Secondary Road passes through the town and connects Drogheda with Mullingar.

Navan is also served by several regional roads, namely the R147, R153, R161, and R162. The town experiences high levels of through traffic as a result. The Town has benefited greatly from the construction of the M3 Clonee to North of Kells Motorway Scheme which has provided a bypass for the town with a southern interchange accessible from Kilcarn and with a northern interchange accessible from the Athboy Road.

Public bus services between Navan and Dublin are very good with Bus Eireann running over 50 buses each way per day. The company also operates a town bus service which services three different routes. The Flexibus rural transport service provides an excellent local service by linking Navan with the following local villages; Oldcastle, Bohermeen, Drumcondrath, Athboy, Trim, Ballivor, Summerhill, Longwood and Clonmellon.

### **4.8.4 Existing Problems**

The waste water treatment plant at Farganstown that serves the Plan area failed to meet the overall requirements of the Urban Waste Water Regulations in 2011 and 2010.

The Navan and Mid Meath Public Water Supply is listed on the EPA's most recent (Q3 2013) Remedial Action List.

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<sup>7</sup> Some of the text in this Section is taken from the Proposed Variation to the Navan Town Development Plan 2009-2015

## 4.9 Cultural Heritage

### 4.9.1 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.

### 4.9.2 Archaeological Heritage

#### 4.9.2.1 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.

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.

#### 4.9.2.2 Record of Monuments and Places

Navan's archaeological heritage is protected under the National Monuments Acts (1930-2004), Natural Cultural Institutions Act 1997 and the Planning Acts. The Record of Monuments and Places (RMP) is an inventory, established under Section 12 of the National Monuments (Amendment) Act 1994, of sites and areas of archaeological significance, numbered and mapped. The RMP includes all

known monuments and sites of archaeological importance dating to before 1700 AD, and some sites which date from after 1700 AD.

Figure 4.15 shows the spatial distribution of entries to the RMP with the highest concentration occurring within the town's Zone of Archaeological Importance.

### 4.9.3 Architectural Heritage

#### 4.9.3.1 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.

#### 4.9.3.2 Record of Protected Structures

The Record of Protected Structures (RPS) included in the Development Plan is legislated for under Section 12 and Section 51 of the Planning and Development Act 2000 as amended.

Protected Structures are defined in the Planning and Development Act 2000 as amended 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 curtilage<sup>8</sup> of the structure;

<sup>8</sup> 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).

Current entries to the RPS in Navan are mapped on Figure 4.16.

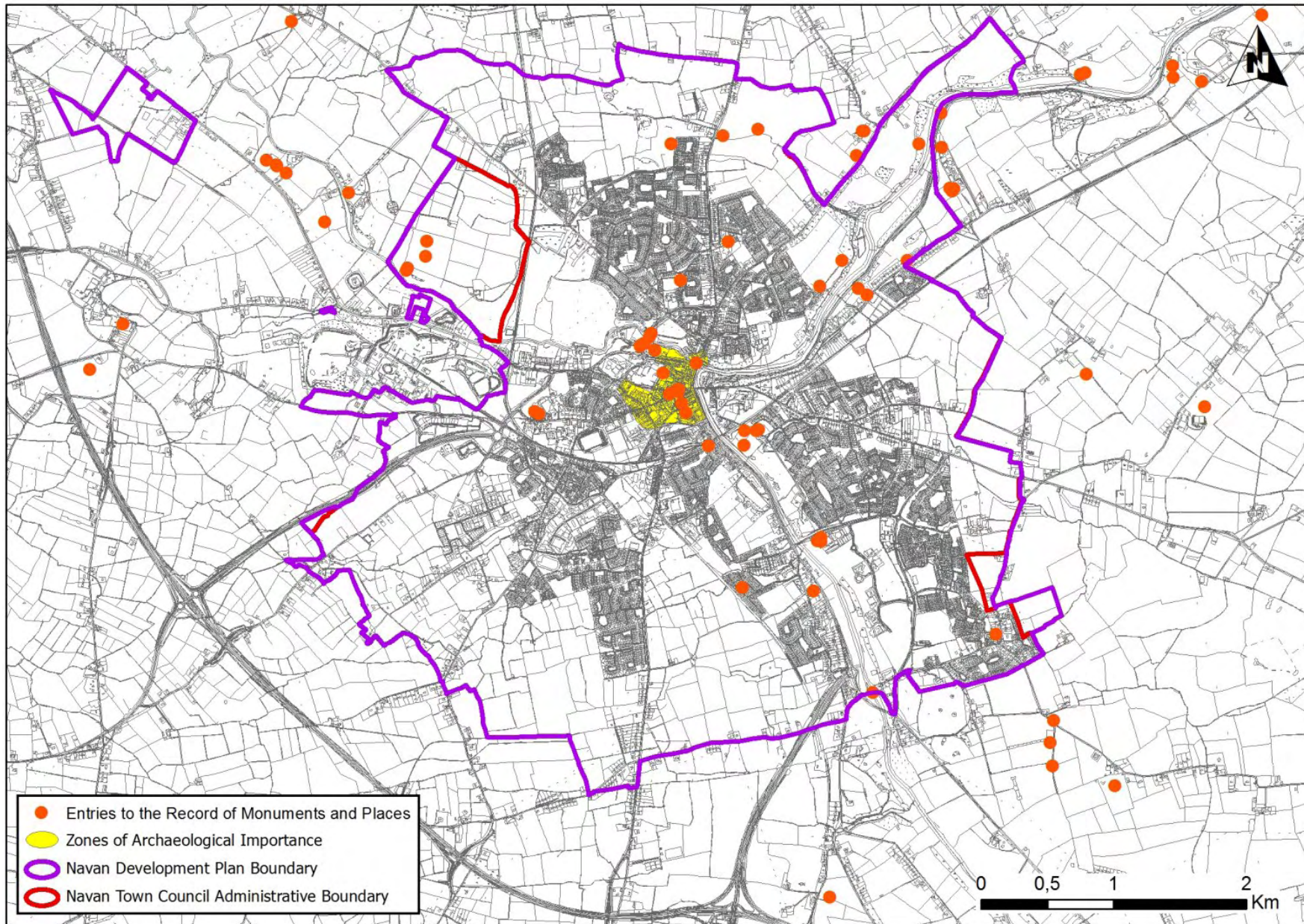
#### **4.9.3.3 Architectural Conservation Area**

An Architectural Conservation Area (ACA) is a place, area, group of structures or townscape, which is of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest or contributes to the appreciation of a Protected Structure. An ACA may or may not include Protected Structures. In an ACA, protection is placed on the external appearance of such areas or structures. Planning permission must be obtained before significant works can be carried out to the exterior of a structure in an ACA, which might alter the character of the structure, or of the ACA. An ACA is designated in Navan Town Centre as mapped on Figure 4.16.

#### **4.9.4 Existing Problems**

The context of archaeological and architectural heritage has changed over time within the Plan area however no existing conflicts with legislative objectives governing archaeological and architectural heritage have been identified.

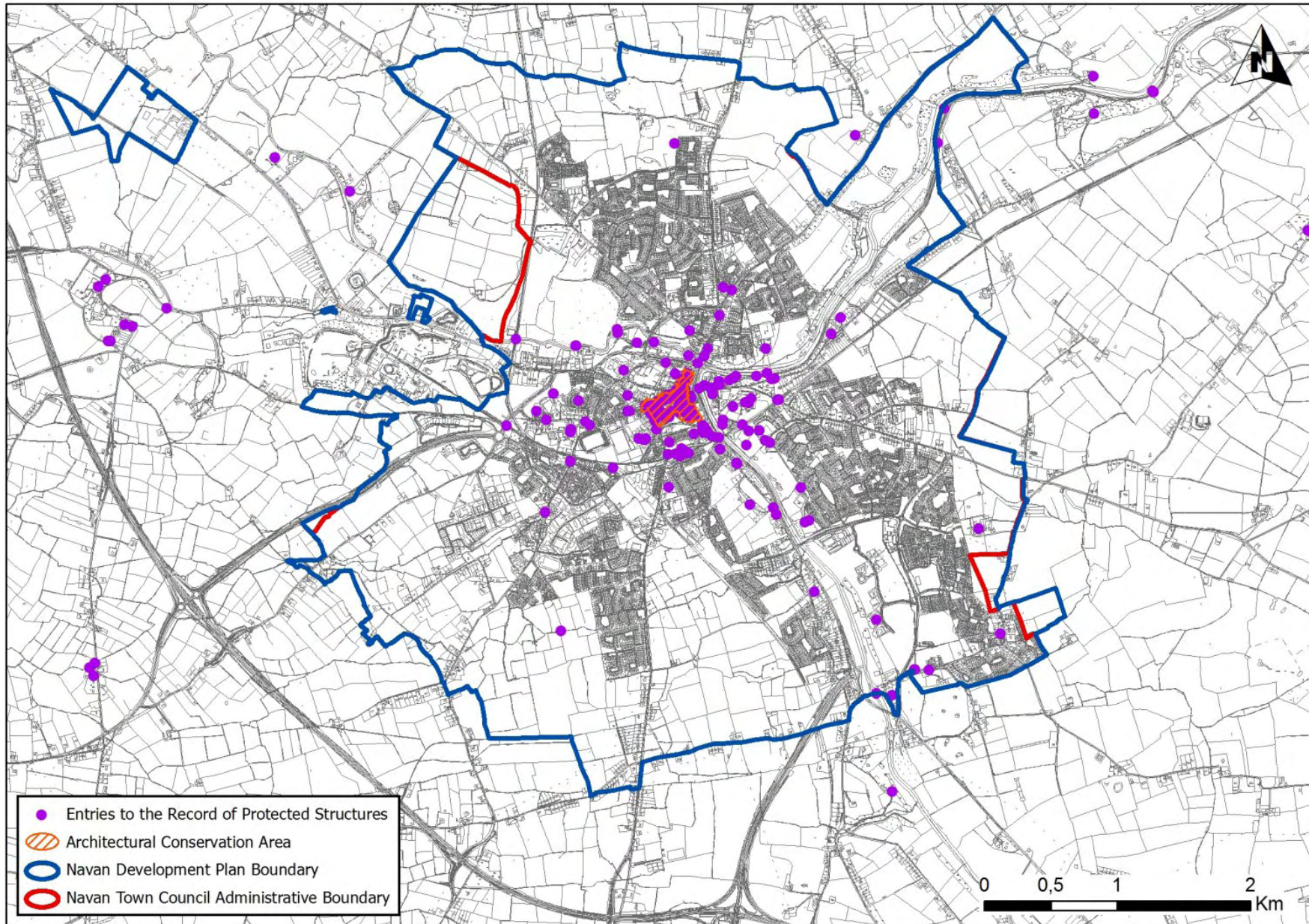




**Figure 4.15 Archaeological Heritage - Entries to the Record of Monuments and Places and Zone of Archaeological Importance**

Source: Meath County Council (2013)





**Figure 4.16 Architectural Heritage - Entries to the Record of Protected Structures and Architectural Conservation Area**

Source: Meath County Council (2013)

## 4.10 Landscape

### 4.10.1 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.

### 4.10.2 Legislation

The importance of landscape and visual amenity and the role of its protection are recognised in the Planning and Development Act 2000 as amended, which requires that Development Plans include objectives for the preservation of the landscape, views and the amenities of places and features of natural beauty.

### 4.10.3 Landscape Character Assessment<sup>9</sup>

#### 4.10.3.1 Overview

The Meath County Development Plan 2013-2019 is accompanied by a county level Landscape Character Assessment which identifies 20 Landscape Character Areas (LCAs) within the county. These LCAs are geographically specific areas which have taken into account a variety of landscape related factors.

The Assessment attributes each of the landscape areas with, inter alia, a *value* - which refers to the contribution the LCA makes to the inherent character of County Meath - and a *sensitivity* - which refers to the LCA's overall resilience to sustain its character in the face of change and its ability to recuperate from loss or damage to its components. There are 5 different landscape character areas within the Town Development Plan area which are mapped on Figure 4.17 and detailed on Table 4.1 below.

<sup>9</sup> Text in this section is sourced from the Council's Landscape Character Assessment

Landscape Character Area	Value	Sensitivity
Boyne Valley	Exceptional	High
Blackwater Valley	Very High	High
North Navan Lowlands	Moderate	Medium
West Navan Lowlands	Moderate	Medium
Central Lowlands	High	Medium

**Table 4.1 Landscape Character Areas**

#### 4.10.3.2 Landscape Values

The value of each LCA refers to the contribution the area makes to the inherent character of County Meath. Value takes account of scenic quality, tranquillity, remoteness, rarity, cultural associations, history, conservation, recreational interests and broader social, economic and environmental aspects. It is evaluated using criteria ranging from 'Exceptional' to 'Low'. A judgement is also made of the importance of each landscape character area in an international, national, regional or local context. This does not always relate directly to its value or sensitivity - locally important area can make as much of a contribution to strong landscape character. However, an internationally important area may require greater consideration in terms of statutory protection and management (e.g. if it is a major tourist attraction). Landscape Values in the Navan area are mapped on Figure 4.18.

#### 4.10.3.3 Landscape Sensitivity Classes

The sensitivity of a LCA is defined as its overall resilience to sustain its character in the face of change and its ability to recuperate from loss or damage to its components. Sensitivity is evaluated using criteria ranging from 'High' to 'Low' and is based on the interaction of individual components such as landform, amount of evident historical features (time depth) and distribution of viewers.

Sensitivity also depends on the condition of the LCA (i.e. what state of repair a LCA is in). A highly sensitive landscape is likely to be vulnerable, fragile and susceptible to change whereas a landscape with low sensitivity is likely to be more robust and/ or tolerant of change.



Navan falls under moderate and high sensitivity landscape classes as mapped on Figure 4.19.

#### **4.10.4 Views and Prospects**

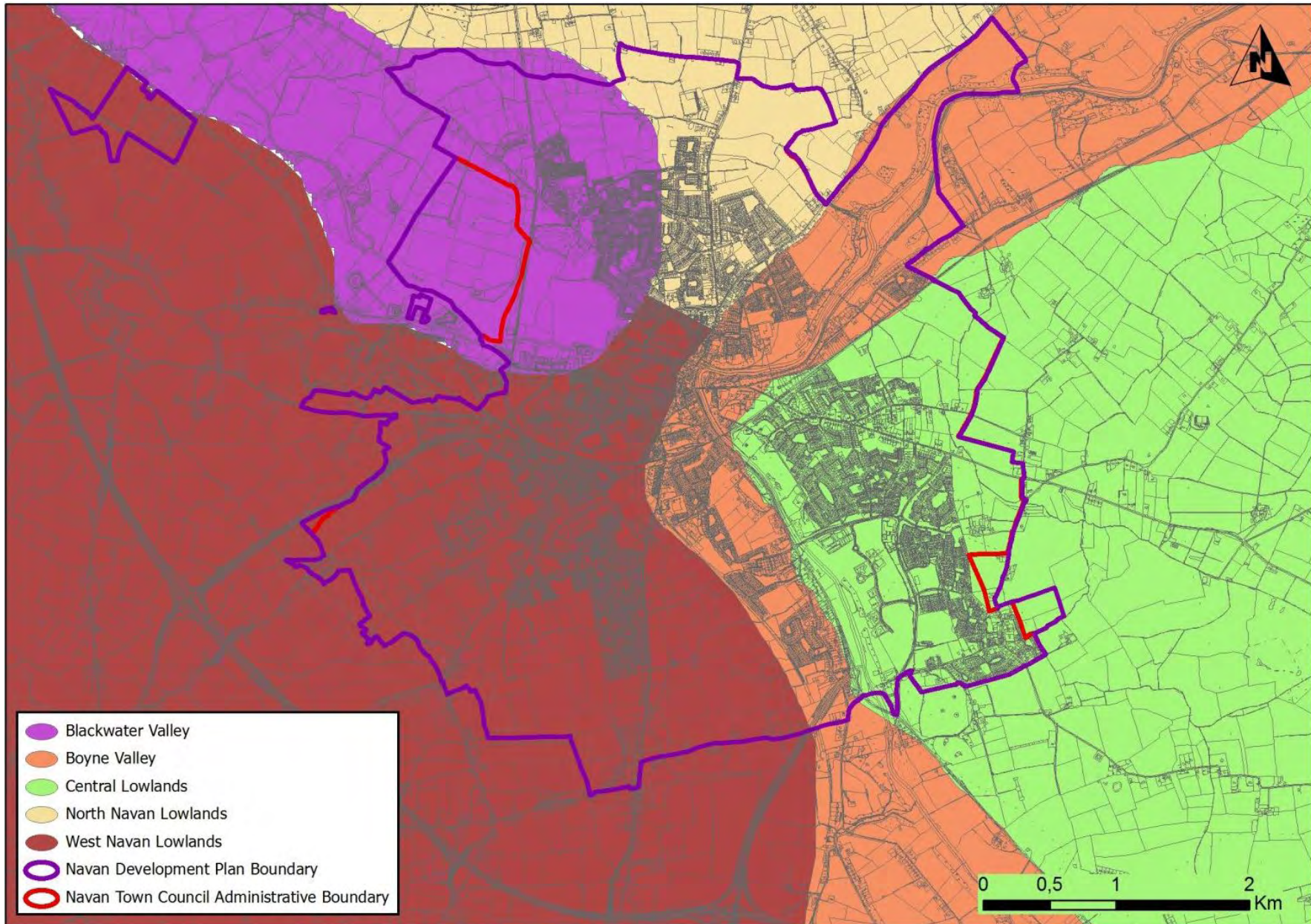
A number of views and prospects have been identified for protection by the Town Development Plan given their special amenity value. The views and prospects that are considered of particular importance by the current Town Plan are along the Boyne Corridor, including the Ramparts area, Athlumney Castle, the Motte, Viaduct and bridging points of the Boyne and Navigation Canal.

In addition to the views protected under the current Town Plan, there are 2 Protected Views designated in the Meath County Development Plan 2013-2019, the origins of which are located within the vicinity of the town.

Protected views and prospects from the current Town Plan and from the current County Development Plan are indicated on Figure 4.20 below.

#### **4.10.5 Existing Environmental Problems**

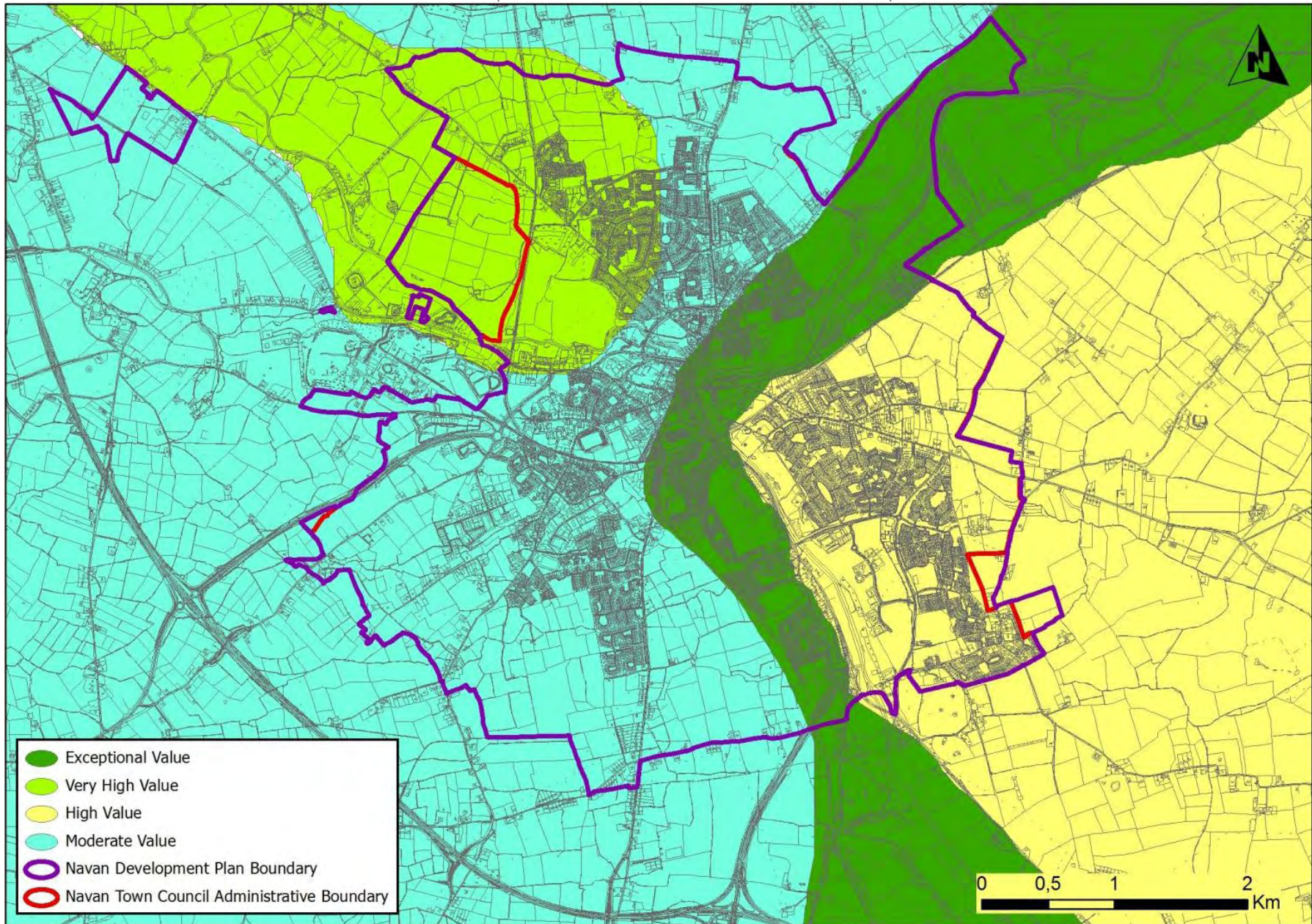
Developments have resulted in changes to the visual appearance of the landscape within the Plan area however legislative objectives governing landscape and visual appearance were not identified as being conflicted with.



**Figure 4.17 Landscape Character Areas**

Source: Meath County Council (2013)

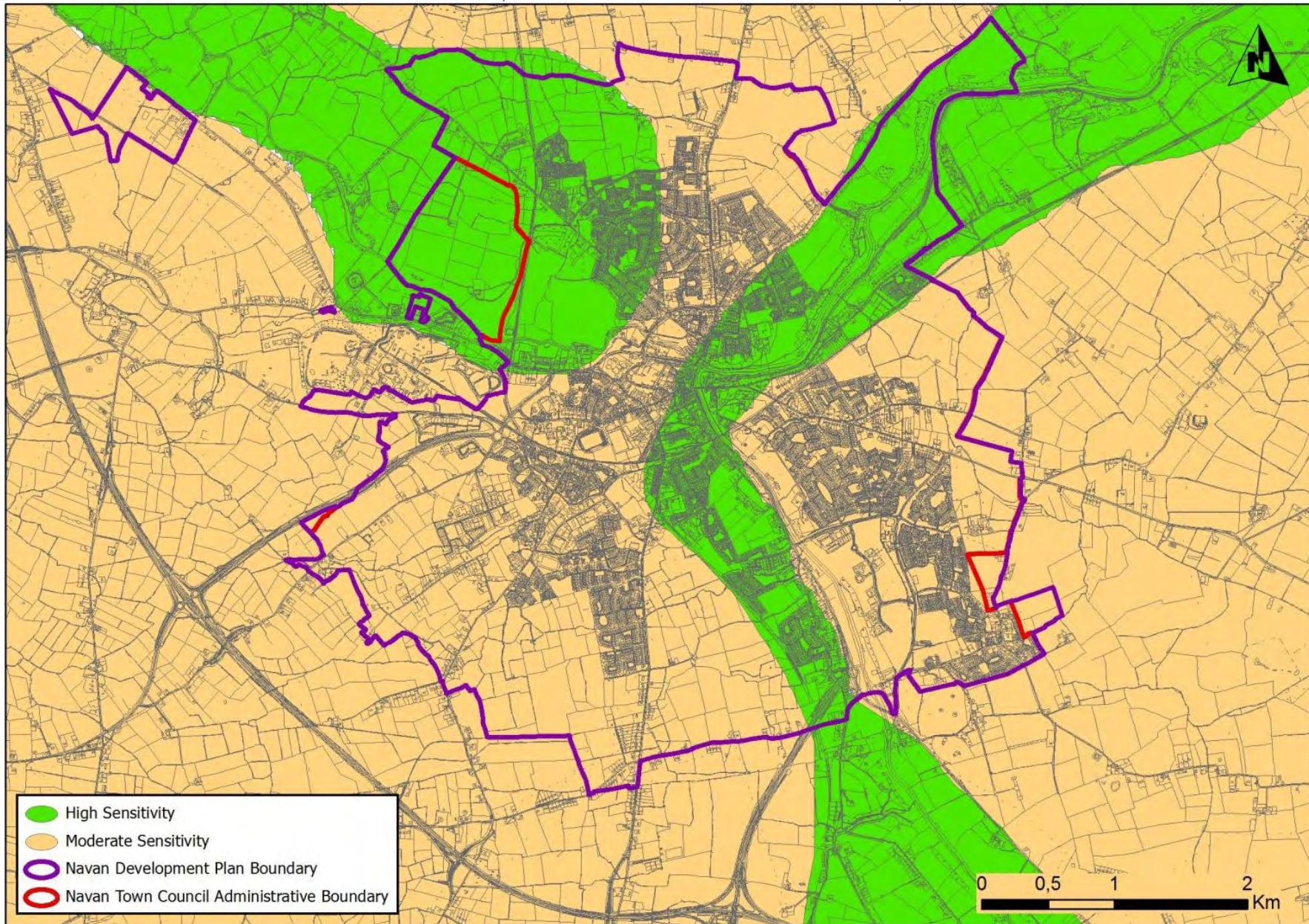




**Figure 4.18 Landscape Values**

Source: Meath County Council (2013)

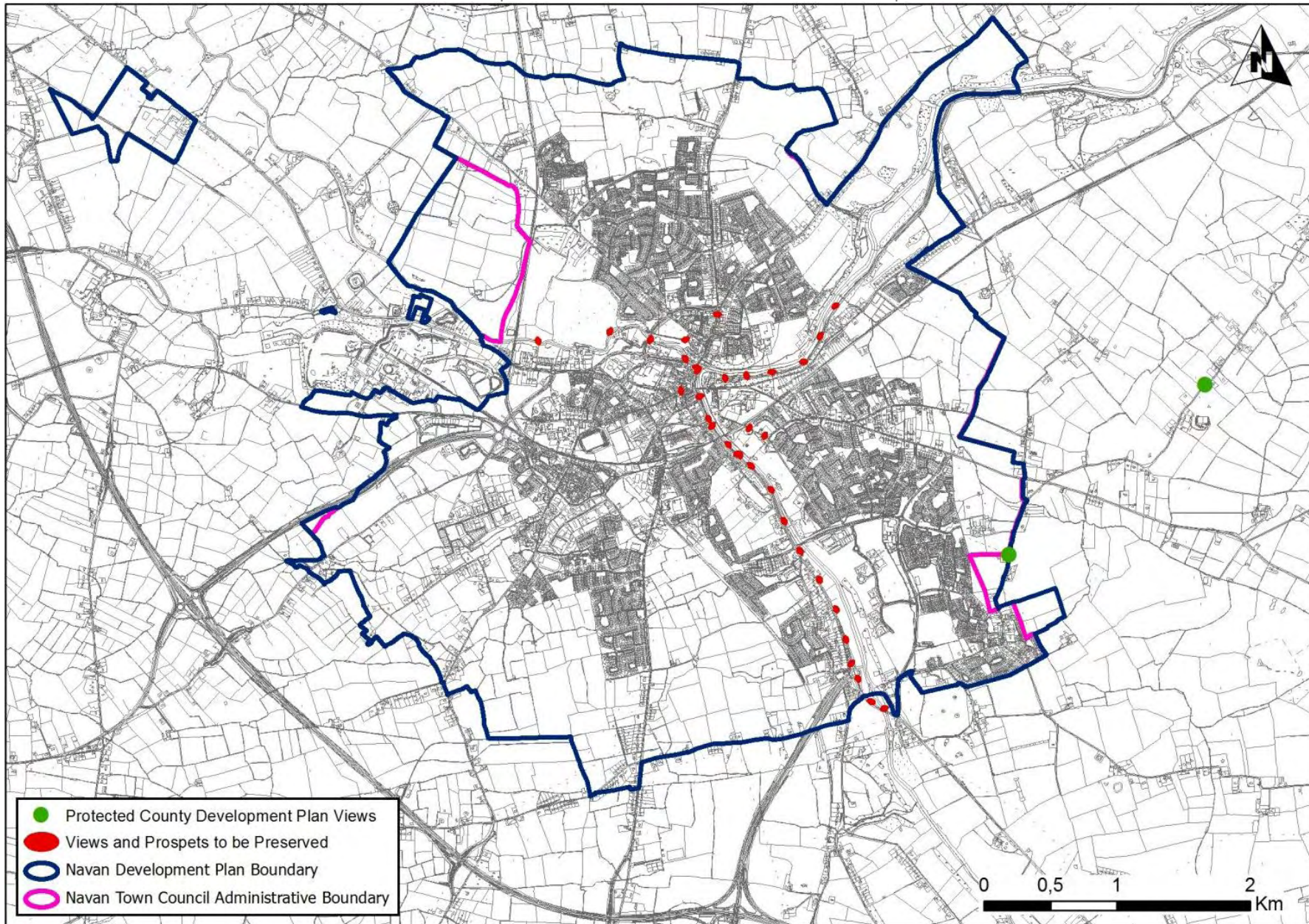




**Figure 4.19 Landscape Sensitivity**

Source: Meath County Council (2013)





**Figure 4.20 Protected Views, Views and Prospects to be Preserved**

Source: Meath County Council (2013)

## Section 5 Strategic Environmental Objectives

### 5.1 Introduction

Strategic Environmental Objectives (SEOs) are methodological measures developed from policies which generally govern environmental protection objectives established at international, Community or Member State level e.g. the environmental protection objectives of various European Directives which have been transposed into Irish law and which are required to be implemented.

The SEOs are set out under a range of topics and are used as standards against which the provisions of the Variation and the alternatives are evaluated in order to help identify which provisions would be likely to result in significant environmental effects and where such effects would be likely to occur, if - in the case of adverse effects - unmitigated.

SEOs are distinct from the objectives of the Variation and Plan - although they will often overlap - and they are not given statutory weight by virtue of their use in Strategic Environmental Assessments.

The SEOs are linked to indicators which can facilitate monitoring the environmental effects of the Plan as varied as well identifying targets which the Plan can help work towards.

SEOs were developed taking into account feedback provided by the environmental authorities.

### 5.2 Biodiversity, Flora and Fauna

#### 5.2.1 International, European, National and County Strategic Actions

##### 5.2.1.1 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.

Special Areas of Conservation (SACs) are designated and protected under the Habitats Directive 1992 (92/43/EEC) due to their conservation value for habitats and species of importance in the European Union.

The Habitats Directive establishes Natura 2000, a network of protected areas throughout the EU. SACs together with Special Protection Areas (SPAs) - which are designated under the 1979 Birds Directive - make up the Natura 2000 network of protected sites.

Article 6 of the Habitats Directive provides for the need to undertake Appropriate Assessments of plans or projects which have the potential to impacts upon Natura 2000 sites.

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.

In Ireland, the habitats and species occurring in both SACs and SPAs 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 impact on the protected site in question, including direct, cumulative and indirect impacts, an Appropriate Assessment is required.

The integration of the requirements of Article 6 of the Habitats Directive into the Planning and Development Act 2000 as amended and the European Communities (Birds and Natural Habitats) Regulations 2011 puts the



requirement for Appropriate Assessment into context for both projects and plans.

#### **5.2.1.2 Birds Directive 1979**

The 1979 European Council Directive on the Conservation of Wild Birds (79/409/EEC), referred to as the Birds Directive, - as well as its amending acts - seeks to protect, manage and regulate all bird species naturally living in the wild within the European territory of the Member States, including the eggs of these birds, their nests and their habitats; and to regulate the exploitation of these species.

The Directive places great emphasis on the protection of habitats for endangered as well as migratory species, especially through the establishment of a coherent network of Special Protection Areas (SPAs).

SPAs are protected under the Directive and have been designated in Ireland by the Department of Arts, Heritage and the Gaeltacht due to their conservation value for birds of importance in the European Union.

#### **5.2.1.3 European Communities (Birds and Natural Habitats) Regulations 2011**

The European Communities (Birds and Natural Habitats) Regulations 2011 consolidate the European Communities (Natural Habitats) Regulations 1997 to 2005 and the European Communities (Birds and Natural Habitats)(Control of Recreational Activities) Regulations 2010, as well as addressing transposition failures identified in the CJEU judgements.

The Regulations have been prepared to address several judgments of the Court of Justice of the European Union (CJEU) against Ireland, notably cases C-418/04 and C-183/05, in respect of failure to transpose elements of the Birds Directive and the Habitats Directive into Irish law.

#### **5.2.1.4 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.

#### **5.2.1.5 National Biodiversity Plan 2011**

The preparation and implementation of Ireland's 2<sup>nd</sup> National Biodiversity Plan 2011<sup>10</sup> 'Actions for Biodiversity 2011 – 2016' complies with an obligation under the UN Convention on Biological Diversity. The Plan has been developed in line with the EU and International Biodiversity strategies and policies.

The measures Ireland will take are presented as 102 actions under a series of 7 Strategic Objectives. Some of the actions within the plan are continuing elements of existing work and many are requirements under existing EU Directives. The objectives cover the conservation of biodiversity in the wider countryside and in the marine environment, both within and outside protected areas; the mainstreaming of biodiversity across the decision making process in the State; the strengthening of the knowledge base on biodiversity; increasing public awareness and participation; and Ireland's contribution to international biodiversity issues, including North South co-ordination on issues of common interest.

#### **5.2.1.6 Wildlife Act 1976 and Wildlife (Amendment) Act 2000**

The basic designation for wildlife is the Natural Heritage Area (NHA). 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. Under the Wildlife Amendment Act (2000), NHAs are legally protected from damage from the date they are formally proposed for designation. Proposed NHAs (pNHAs) were published on a non-statutory basis in 1995, but have not since been statutorily proposed or designated - designation will proceed on a phased basis over the coming years.

The Planning and Development Act 2000 as amended defines a 'wildlife site' as:

- (a) an area proposed as a natural heritage area and the subject of a notice made under section 16(1) of the Wildlife (Amendment) Act 2000,
- (b) an area designated as or proposed to be designated as a natural heritage

<sup>10</sup> Department of Arts, Heritage, Gaeltacht and the Islands (2002) *National Biodiversity Plan* Dublin: Government of Ireland

area by a natural heritage area order made under section 18 of the Wildlife (Amendment) Act 2000,

(c) a nature reserve established or proposed to be established under an establishment order made under section 15 (amended by section 26 of the Wildlife (Amendment) Act 2000) of the Wildlife Act 1976,

(d) a nature reserve recognised or proposed to be recognised under a recognition order made under section 16 (amended by section 27 of the Wildlife (Amendment) Act 2000) of the Wildlife Act 1976, or

(e) a refuge for fauna or flora designated or proposed to be designated under a designation order made under section 17 (amended by section 28 of the Wildlife (Amendment) Act 2000) of the Wildlife Act 1976.

## 5.2.2 SEOs, Indicators and Targets

<b>SEO B1:</b>	To ensure compliance with the Habitats and Birds Directives with regard to the protection of Natura 2000 Sites and Annexed habitats and species <sup>11</sup>
<b>Indicator B1:</b>	Conservation status of habitats and species as assessed under Article 17 of the Habitats Directive
<b>Target B1:</b>	Maintenance of favourable conservation status for all habitats and species protected under national and international legislation to be unaffected by implementation of the Plan as varied <sup>12</sup>

<b>SEO B2:</b>	To ensure compliance with Article 10 of the Habitats Directive with regard to the management of features of the landscape which - by virtue of their linear and continuous structure or their function act as stepping stones (designated or not) - are of major importance for wild fauna and flora and essential for the migration, dispersal and genetic exchange of wild species
<b>Indicator B2:</b>	Percentage loss of functional connectivity without remediation resulting from development provided for by the Plan as varied
<b>Target B2:</b>	No significant ecological networks or parts thereof which provide functional connectivity to be lost without remediation resulting from development provided for in the Plan as varied

<sup>11</sup> 'Annexed habitats and species' refer to those listed under Annex I, II & IV of the EU Habitats Directive and Annex I of the EU Birds Directive.

<sup>12</sup> 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.



<b>SEO B3:</b>	To avoid significant impacts on relevant habitats, species, environmental features or other sustaining resources in designated sites including Wildlife Sites <sup>13</sup> and to ensure compliance with the Wildlife Acts 1976-2010 with regard to the protection of species listed on Schedule 5 of the principal Act
<b>Indicator B3i:</b>	Number of significant impacts on relevant habitats, species, environmental features or other sustaining resources in designated sites including Wildlife Sites resulting from development provided for by the Plan as varied
<b>Target B3i:</b>	Avoid significant impacts on relevant habitats, species, environmental features or other sustaining resources in designated sites including Wildlife Sites resulting from development provided for by the Plan as varied
<b>Indicator B3ii:</b>	Number of significant impacts on the protection of species listed on Schedule 5 of the Wildlife Act 1976
<b>Target B3ii:</b>	No significant impacts on the protection of species listed on Schedule 5 of the Wildlife Act 1976

<sup>13</sup> The Planning and Development Act 2000 as amended defines a 'wildlife site'. See Section 5.2.1.

## 5.3 Population and Human Health

### 5.3.1 Population

The population provided for by the Plan as varied will interact with various environmental components. Potential interactions include:

- Recreational and development pressure on habitats and landscapes - consideration of SEOs B1, B2 and B3 cover this issue;
- Increase in demand for wastewater treatment at the municipal level - consideration of SEO M1 covers this issue;
- Increase in demand for water supply - consideration of SEO M2 covers this issue;
- Potential development in flood-sensitive areas - consideration of SEO W3 covers this issue; and
- Effect on water quality - consideration of SEOs W1 and W2 cover this issue.

### 5.3.2 Human Health

#### 5.3.2.1 Overview

The impact of implementing the Variation on human health is determined by the impacts which the Variation will have upon environmental vectors. Environmental vectors are 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 would be influenced by the extent to which new development is accompanied by appropriate infrastructure - this relates to SEOs M1 and M2; Impacts upon the quality of water bodies - these relate to SEOs W1 and W2; and the extent of development provided which would affect flood risk - this relates to SEO W3.

#### 5.3.2.2 Emission Limits

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. In the event that a land-use plan began to have adverse health effects on surrounding populations it is likely that it would have been identified as being in breach of such emission

standards at a very early stage - and long before the manifestation of any adverse health effects in the population.

### 5.3.3 SEO, Indicator and Target

**SEO PHH1:** To protect populations and human health from exposure to incompatible landuses

**Indicator PHH1:** Occurrence (any) of a spatially concentrated deterioration in human health arising from environmental factors resulting from development provided for by the Plan as varied, as identified by the Health Service Executive and Environmental Protection Agency

**Target PHH1:** No spatial concentrations of health problems arising from environmental factors as a result of implementing the Plan as varied

### 5.4.2 SEO, Indicator and Target

**SEO S1:** To avoid damage to the hydrogeological and ecological function of the soil resource

**Indicator S1:** Soil extent and hydraulic connectivity

**Target S1:** To minimise reductions in soil extent and hydraulic connectivity

## 5.5 Water

### 5.5.1 The Water Framework Directive 2000

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.

### 5.5.2 Quality Standards for Surface Waters

The European Communities Environmental Objectives (Surface Waters) Regulations 2009 (SI No. 272 of 2009) is the final major piece of legislation needed to support the WFD and gives statutory effect to Directive 2008/105/EC on environmental quality standards in the field of water policy. The Surface Waters Regulations also give further effect to the WFD, establishing a framework for Community action in the field of water policy and Directive 2006/11/EC on pollution caused by certain dangerous substances discharged into the aquatic environment of the Community.

The Surface Waters Regulations apply to all surface waters - including lakes, rivers, canals, transitional waters, and coastal waters - and provide, inter alia, for:

- The establishment of legally binding quality objectives for all surface

## 5.4 Soil

### 5.4.1 Overview

Soil is potentially subject to a series of threats including erosion, decline in organic matter, local and diffuse contamination, sealing, compaction, decline in biodiversity, salinisation, floods and landslides. A combination of some of these threats can ultimately lead arid or sub-arid climatic conditions to desertification.

Given the importance of soil and the need to prevent further soil degradation, the Sixth Environment Action Programme<sup>14</sup> called for the development of a Thematic Strategy on Soil Protection.

<sup>14</sup> Decision No 1600/2002/EC of the European Parliament and of the Council of 22<sup>nd</sup> July 2002 laying down the Sixth Community Environment Action Programme (OJ L 242, 10.9.2002, p. 1).

waters and environmental quality standards for pollutants;

- The examination and where appropriate, review of existing discharge authorisations by Public Authorities to ensure that the emission limits laid down in authorisations support compliance with the new water quality objectives/standards;
- The classification of surface water bodies by the EPA for the purposes of the Water Framework Directive;
- The establishment of inventories of priority substances by the EPA, and;
- The drawing up of pollution reduction plans by coordinating local authorities (in consultation with the EPA) to reduce pollution by priority substances and to cease and/or phase out discharges, emissions or losses of priority hazardous substances.

In order to satisfy the overall WFD objective of 'good status', a surface water body must achieve the requirements of the good ecological<sup>15</sup> and chemical<sup>16</sup> status.

The EU's Common Implementation Strategy Guidance Document No. 20 provides guidance on exemptions to the environmental objectives of the Water Framework Directive.

### 5.5.3 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 Directive (Directive 2006/118/EC on the protection of groundwater against pollution and deterioration).

This Directive sets up environmental objectives of good groundwater quantity and good groundwater quality (chemical status), as well

<sup>15</sup> Ecological status comprises: biological quality elements, physiochemical conditions and hydromorphological quality elements. The overall ecological status of the water body is determined by the lowest level of status achieved across all quality elements.

<sup>16</sup> Chemical status assessment is based on compliance with the standards laid down for priority substances by Directive 2008/105/EC on environmental quality standards in the field of water policy (the Surface Waters Regulations give effect to the environmental standards established by this Directive).

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 requires 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 pesticides<sup>17</sup>, including their relevant metabolites, degradation and reaction products - 0,1 µg/l and 0,5 µg/l (total<sup>18</sup>).

Irish groundwater threshold values<sup>19</sup> are currently in the process of being set by the EPA.

### 5.5.4 River Basin Management Plans

Navan is located within the Eastern River Basin District. This District has a River Basin Management Plan and a Programme of

<sup>17</sup> '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.

<sup>18</sup> 'Total' means the sum of all individual pesticides detected and quantified in the monitoring procedure, including their relevant metabolites, degradation and reaction products.

<sup>19</sup> 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.

Measures to be implemented in order to enable the achievement of the requirements of the WFD.

### 5.5.5 Flooding

#### 5.5.5.1 EU Floods Directive

European Directive 2007/60/EC on the assessment and management of flood risks aims to reduce and manage the risks that floods pose to human health, the environment, cultural heritage and economic activity. The Directive applies to inland waters as well as all coastal waters across the whole territory of the EU.

The Directive requires Member States to carry out a preliminary assessment by 2011 in order to identify the river basins and associated coastal areas at risk of flooding. For such zones flood risk maps are required to be drawn up by 2013. By 2015 flood risk management plans focused on prevention, protection and preparedness must be established by 2015.

The Directive is to be carried out in coordination with the Water Framework Directive and flood risk management plans and river basin management plans should be coordinated.

#### 5.5.5.2 DEHLG Flood Risk Management Guidelines

In November 2009 the DEHLG issued *The Planning System and Flood Risk Management Guidelines* for Planning Authorities. These are aimed at ensuring a more consistent, rigorous and systematic approach which will fully incorporate flood risk assessment and management into the planning system.

The Guidelines require the planning system to, among other things:

- Avoid development in areas at risk of flooding, particularly flood plains, unless there are proven sustainability grounds that justify appropriate development and where flood risk can be reduced or managed to an acceptable level, without increasing flood risk elsewhere;
- Adopt a sequential approach to flood risk management when assessing the location for new development based

on avoidance, reduction and mitigation of flood risk; and

- Incorporate flood risk assessment into the process of making decisions on planning applications and planning appeals.

#### 5.5.5.3 SFRA

A Strategic Flood Risk Assessment (SFRA) has been undertaken and is available alongside Variation. The SFRA provides information on a number of flood risk indicators within the county and has facilitated the integration of flood risk management considerations into the Variation.



### 5.5.6 SEOs, Indicators and Targets

Note that SEOs W1 and W2 also relate to the quality of soils.

<b>SEO W1:</b>	To maintain and improve, where possible, the quality and status of surface waters
<b>Indicator W1i:</b>	Classification of Overall Status (comprised of ecological and chemical status) under the European Communities Environmental Objectives (Surface Waters) Regulations 2009 (SI No. 272 of 2009)
<b>Target W1i:</b>	Not to cause deterioration in the status of any surface water or affect the ability of any surface water to achieve 'good status' <sup>20</sup> by 2015

<b>SEO W2:</b>	To prevent pollution and contamination of ground water
<b>Indicator W2:</b>	Groundwater Quality Standards and Threshold Values under Directive 2006/118/EC
<b>Target W2:</b>	Not to affect the ability of groundwaters to comply with Groundwater Quality Standards and Threshold Values under Directive 2006/118/EC

<sup>20</sup> Good status as defined by the WFD equates to approximately Q4 in the current national scheme of biological classification of *rivers* as set out by the EPA.

<b>SEO W3:</b>	To comply as appropriate with the provisions of the Planning System and Flood Risk Management: Guidelines for Planning Authorities (DEHLG, 2009)
<b>Indicator W3:</b>	Number of incompatible developments granted permission on lands which pose - or are likely to pose in the future - a significant flood risk
<b>Target W3:</b>	Minimise developments granted permission on lands which pose - or are likely to pose in the future - a significant flood risk in compliance with <i>The Planning System and Flood Risk Management Guidelines for Planning Authorities</i>

## 5.6 Material Assets

### 5.6.1 Water Services Act 2007

The Water Services Act 2007 (SI No. 30 of 2007) incorporates a comprehensive review, update and consolidation of all existing water services<sup>21</sup> legislation, and facilitates the establishment of a comprehensive supervisory regime to ensure compliance with specified performance standards.

Section 36 of the Act provides for the making of 6-year Water Services Strategic Plans (WSSPs) in order to:

- to protect human health and the environment;
- to facilitate the provision of sufficient water services for domestic and non-domestic requirements in the area to which the plan relates; and
- to support proper planning and sustainable development, including sustainable use of water resources.

<sup>21</sup> Services, including the provision of water intended for human consumption, which provide storage, treatment or distribution of surface water, groundwater or water supplied by a water services authority, or waste water collection, storage, treatment or disposal.

WSSPs are to be made by Water Services Authorities for their functional areas. The Act allows for two or more Water Services Authorities to jointly make a WSSP in relation to all of their combined functional areas, or parts thereof.

WSSPs are required to include information on the following:

- drinking water quality;
- the prevention or abatement of risk to human health or the environment;
- current and projected need for water services;
- arrangements in place or planned for the provision of water services;
- shortfalls in the provision of water services;
- water conservation measures in place or planned;
- monitoring arrangements;
- asset management planning; and
- income and expenditure.

Section 36 (9) of the Act allows for the making of regulations prescribing the manner in which any matter is to be set out or addressed in a WSSP, notification or consultation requirements and procedures or associated time limits, prior to and after its making.

### 5.6.2 Urban Waste Water Treatment Directive 2001

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 No. 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 5.5.1).

### 5.6.3 Drinking Water Regulations 2007

The European Communities (Drinking Water) Regulations (No. 2) 2007 require the compliance of water intended for human consumption with 48 parameters.

Measures have been integrated into the Plan as varied in order to help ensure a clean and wholesome water supply.

### 5.6.4 Waste Management

The North East Region Waste Management Plan was developed by the local authorities of Counties Meath, Cavan, Louth and Monaghan. The Plan adopted a regional approach to integrated waste management based on the waste hierarchy established in the EU Framework Directive on Waste.

### 5.6.5 SEOs, Indicators and Target

<b>SEO M1:</b>	To serve new development with adequate and appropriate waste water treatment
<b>Indicator M1:</b>	Number of new developments granted permission which can be adequately and appropriately served with waste water treatment over the lifetime of the Plan as varied
<b>Target M1:</b>	All new developments granted permission to be connected to and adequately and appropriately served by waste water treatment over the lifetime of the Plan as varied

<b>SEO M2:</b>	To serve new development with adequate drinking water that is both wholesome and clean
<b>Indicator M2:</b>	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 as a

	result of implementing the Plan as varied
Target M2:	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 as a result of implementing the Plan as varied

<b>SEO M3:</b>	To reduce waste volumes, minimise waste to landfill and increase recycling and reuse.
Indicator M3i:	Total collected and brought household waste
Target M3i:	Minimise increases in and, where possible, reduce household waste generation
Indicator M3ii:	Packaging recovered (t) by self-complying packagers
Target M3ii:	Maximise increases in packaging recovered (t) by self-complying packagers

## 5.7 Air and Climatic Factors

### 5.7.1 Introduction

The impact of implementing the Plan on air quality and climatic factors will be determined by the impacts which the Plan has upon the greenhouse gas emissions arising from transport which relate to SEO C1.

Travel is a source of:

1. Noise;
2. Air emissions; and
3. Energy use (38.8% of Total Final Consumption in Ireland in 2010 was taken up by transport, the largest take up of any sector)<sup>22</sup>.

Land-use planning contributes to what number and what extent of journeys occur. By addressing journey time through land use

<sup>22</sup> Sustainable Energy Ireland (2011) *Energy in Ireland 1990 – 2010*

planning, noise and other emissions to air and energy use can be minimised. Furthermore, by concentrating populations, greenfield development - and its associated impacts - can be minimised and the cost of service provision can be reduced.

### 5.7.2 Air Quality

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. 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 inhabitants. The EU Directives include details regarding how ambient air quality should be monitored, assessed and managed.

The principles to this European approach are set out under the Air Quality Framework Directive 1996 while four daughter Directives lay down limits or thresholds for specific pollutants.

### 5.7.3 Climatic Factors

The 2020 EU Effort Sharing target commits Ireland to reducing emissions from those sectors that are not covered by the Emissions Trading Scheme (e.g. transport, agriculture and residential) to 20% below 2005 levels.

### 5.7.4 Noise

Noise is unwanted sound. Traffic noise alone is harming today the health of almost one third of Europeans<sup>23</sup>.

The Noise Directive - Directive 2002/49/EC relating to the assessment and management of environmental noise - is part of an EU strategy setting out to reduce the number of people affected by noise in the longer term and to provide a framework for developing existing Community policy on noise reduction from source. The Directive requires competent authorities in Member States to:

- Draw up *strategic noise maps* for major roads, railways, airports and

<sup>23</sup> World Health Organization Regional Office for Europe (2003) *Technical meeting on exposure-response relationships of noise on health 19-21 September 2002* Bonn, Germany Bonn: WHO



agglomerations, using harmonised noise indicators<sup>24</sup> and use these maps to assess the number of people which may be impacted upon as a result of excessive noise levels;

- Draw up action plans to reduce noise where necessary and maintain environmental noise quality where it is good; and
- Inform and consult the public about noise exposure, its effects, and the measures considered to address noise.

The Directive does not set any limit value, nor does it prescribe the measures to be used in the action plans, which remain at the discretion of the competent authorities.

### 5.7.5 SEOs, Indicators and Targets

<b>SEO C1:</b>	To reduce travel related emissions to air and to encourage modal change from car to more sustainable forms of transport
<b>Indicator C1:</b>	Percentage of population travelling to work, school or college by public transport or non-mechanical means
<b>Target C1:</b>	An increase in the percentage of the population travelling to work, school or college by public transport or non-mechanical means

## 5.8 Cultural Heritage

### 5.8.1 Archaeological Heritage

#### 5.8.1.1 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.

<sup>24</sup> [ $L_{den}$  (day-evening-night equivalent level) and  $L_{night}$  (night equivalent level)]

#### 5.8.1.2 National Heritage Plan for Ireland 2002

The core objective of the National Heritage Plan for Ireland 2002<sup>25</sup> is to protect Ireland's heritage. In this regard the polluter pays and the precautionary principle are operable.

#### 5.8.1.3 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 (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.

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.

### 5.8.2 Architectural Heritage

Records of Protected Structures (RPSs) are legislated for under Section 51 of the Planning and Development Act 2000 as amended and include structures which form part of the architectural heritage and which are of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest.

Architectural Conservation Areas (ACAs) are places, areas or groups of structures or townscapes which are of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest or value, or contribute to the appreciation of protected structures, whose character it is an objective

<sup>25</sup> Department of Arts, Heritage, Gaeltacht and the Islands (2002) *National Heritage Plan for Ireland* Dublin: Government of Ireland

to preserve in a development plan. The ACA designation requires that planning permission must be obtained before significant works can be carried out to the exterior of a structure in the ACA which might alter the character of the structure or the ACA.

### 5.8.3 SEO, Indicators and Targets

**SEO CH1:** To protect archaeological heritage including entries to the Record of Monuments and Places and/or their context

**Indicator CH1:** Percentage of entries to the Record of Monuments and Places - including Zones of Archaeological Potential (and the context of the above within the surrounding landscape where relevant) – protected from adverse effects resulting from development which is granted permission under the Plan as varied

**Target CH1:** Protect entries to the Record of Monuments and Places - including Zones of Archaeological Potential (and their context of the above within the surrounding landscape where relevant) from adverse effects resulting from development which is granted permission under the Plan as varied

**SEO CH2:** To protect architectural heritage including entries to the Record of Protected Structures and Architectural Conservation Areas and their context as varied

**Indicator CH2:** Percentage of entries to the Record of Protected Structures and Architectural Conservation Areas and their context protected from adverse effects resulting from development which is granted permission under the Plan as varied

**Target CH2:** Protect entries to the Record of Protected Structures and Architectural Conservation Areas and their context from adverse effects resulting from development which is granted permission under the Plan as varied

## 5.9 Landscape

### 5.9.1 Overview

The SEO for landscape is guided by Council landscape designations.

### 5.9.2 SEO, Indicator and Target

**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 protected focal points and views

**Indicator L1:** Number of complaints received from statutory consultees regarding avoidable impacts on the landscape - especially with regard to landscapes which are most valuable and most sensitive to change and protected focal points and views - resulting from development which is granted permission under the Plan as varied

Target L1:	No developments permitted which result in avoidable impacts on the landscape - especially with regard to landscapes which are most valuable and most sensitive to change and protected focal points and views - resulting from development which is granted permission under the Plan as varied
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## Section 6 Alternatives

### 6.1 Introduction

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

The description of the environmental baseline (both maps and text) and Strategic Environmental Objectives (SEOs) are used in the evaluation of alternative scenarios.

### 6.2 Development Plan Alternative already selected and considered

#### 6.2.1 Introduction

Meath County Council in preparing the Town Development Plan 2009-2015 undertook a SEA which examined 4 alternative scenarios.

The 'Compact Town Scenario' was chosen for the Plan due to the considerable environmental advantages it offered over the other scenarios, as it represented the most balanced and sustainable means of accommodating the future growth of the town.

#### 6.2.2 Consistency of Variation No. 1 with Compact Town Scenario

Variation No. 1 is consistent with the Compact Town Scenario which was selected for the Plan and assessed in the SEA Environmental Report that was prepared for the Navan Town Development Plan in 2009.

#### 6.2.3 Positive Effects

It was identified that the Compact Town Scenario would:

- Contribute towards the development of a walkable and accessible town (resulting in positive effects upon sustainable mobility);

- Favour the reuse of under-utilised and brownfield sites over greenfield development (resulting in positive effects, both within the Plan area and beyond, upon the protection of human health, biodiversity and flora and fauna, soil and water resources, cultural heritage, landscape designations and upon efforts to provide adequate and appropriate water and waste management services, maximise sustainable mobility and minimise increases in flood risk); and
- Facilitate service and infrastructure provision in an economically efficient and community friendly manner (direct positive effects on water and waste management services, flood risk management and sustainable mobility; indirect positive effects upon the protection of various environmental components).

#### 6.2.4 Negative Effects

##### 6.2.4.1 Potential Negative Effects

There exist a number of potentially significant adverse environmental effects which could occur as a result of implementing the selected Compact Town Scenario. These are as follows and have been and will be mitigated as a result of mitigation measures which have been integrated in the Plan as varied:

##### Biodiversity and Flora and Fauna

- Loss of biodiversity with regard to Natura 2000 Sites and Annexed habitats and species (see baseline Section 4.3)
- Loss of biodiversity with regard to ecological connectivity and stepping stones (see baseline Section 4.3)
- Loss of biodiversity with regard to designated sites including Wildlife Sites and species listed on Schedule 5 of the Wildlife Act 1976 (see baseline Section 4.3)

##### Population and Human Health

- Spatially concentrated deterioration in human health (see baseline Section 4.4)

Soil	of semi-natural land covers with artificial surfaces
<ul style="list-style-type: none"> <li>• Damage to the hydrogeological and ecological function of the soil resource (see baseline Section 4.5)</li> </ul>	Population and Human Health
Water	<ul style="list-style-type: none"> <li>• None</li> </ul>
<ul style="list-style-type: none"> <li>• Adverse impacts upon the status and quality of water bodies (see baseline Section 4.6)</li> <li>• Increase in the risk of flooding (see baseline Section 4.6)</li> </ul>	Soil
Air and Climatic Factors	<ul style="list-style-type: none"> <li>• Loss of an extent of soil function arising from the replacement of semi-natural land covers with artificial surfaces</li> </ul>
<ul style="list-style-type: none"> <li>• Failure to contribute towards sustainable transport and associated impacts (see baseline Section 4.7)</li> </ul>	Water
Material Assets	<ul style="list-style-type: none"> <li>• Flood related risks remain due to uncertainty with regard to extreme weather events</li> </ul>
<ul style="list-style-type: none"> <li>• Failure to provide adequate and appropriate waste water treatment (see baseline Section 4.8)</li> <li>• Failure to comply with drinking water regulations and serve new development with adequate drinking water that is both wholesome and clean (see baseline Section 4.8)</li> <li>• Increases in waste levels (see baseline Section 4.8)</li> </ul>	Air and Climatic Factors
Cultural Heritage	<ul style="list-style-type: none"> <li>• None</li> </ul>
<ul style="list-style-type: none"> <li>• Effects on entries to the Record of Monuments and Places and other archaeological heritage (see baseline Section 4.9)</li> <li>• Effects on entries to the Records of Protected Structures and other architectural heritage (see baseline Section 4.9)</li> </ul>	Material Assets
Landscape	<ul style="list-style-type: none"> <li>• Residual wastes to be disposed of</li> </ul>
<ul style="list-style-type: none"> <li>• Occurrence of adverse visual impacts (see baseline Section 4.10)</li> </ul>	Cultural Heritage
	<ul style="list-style-type: none"> <li>• Potential alteration to the context and setting of architectural heritage (Protected Structures) however these will occur in compliance with legislation</li> <li>• Potential alteration to the context and setting of archaeological heritage (Recorded Monuments) however this will occur in compliance with legislation</li> <li>• Potential loss of unknown archaeology however this loss will be mitigated by measures integrated into the Plan</li> </ul>
	Landscape Designations
	<ul style="list-style-type: none"> <li>• None<sup>26</sup></li> </ul>

#### 6.2.4.2 Residual Negative Effects

Section 8 outlines the measures that have mitigated and will mitigate the potential negative effects that are detailed above. Residual adverse effects likely to occur - considering the extent of detail provided by the Plan and assuming that all mitigation measures are complied with by development - are identified for each of the environmental components as follows:

##### Biodiversity and Flora and Fauna

- Loss of an extent of non-protected habitats arising from the replacement

<sup>26</sup> The Plan contributes towards the protection of landscape designations. Navan's landscapes will change overtime as a result of natural changes in vegetation cover combined with new developments.

## 6.2.5 Evaluation against SEOs

The provisions of the alternatives are evaluated using compatibility criteria (see Table 6.2) in order to determine how they would be likely to affect the status of the SEOs (see Table 6.1).

The SEOs and the alternatives are arrayed against each other to identify which interactions - if any - would cause effects 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 the SEO likely to be affected - in this instance 'to ensure compliance with the Habitats Directive with regard to the protection of Natura 2000 Sites and Annexed habitats and species'.

The interactions identified are reflective of likely significant environmental effects<sup>27</sup>;

1. Interactions that would be likely to improve the status of a particular SEO would be likely to result in a significant positive effect on the environmental component to which the SEO relates.
2. Interactions that would probably conflict with the status of an SEO and would be unlikely to be mitigated would be likely to result in a significant negative effect on the environmental component to which the SEO relates.
3. Interactions that would potentially conflict with the status of an SEO and would be likely to be mitigated would be likely to result in potential significant negative effects however these effects could be mitigated.

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<sup>27</sup> These effects include secondary, cumulative, synergistic, short, medium and long-term permanent and temporary, positive and negative effects.



**Table 6.1 Strategic Environmental Objectives<sup>29</sup>**

SEO Code	SEO
<b>B1</b>	To ensure compliance with the Habitats and Birds Directives with regard to the protection of Natura 2000 Sites and Annexed habitats and species <sup>28</sup>
<b>B2</b>	To ensure compliance with Article 10 of the Habitats Directive with regard to the management of features of the landscape which - by virtue of their linear and continuous structure or their function act as stepping stones - are of significant importance for wild fauna and flora and/or essential for the migration, dispersal and genetic exchange of wild species
<b>B3</b>	To avoid significant impacts on relevant habitats, species, environmental features or other sustaining resources in designated sites including Wildlife Sites and to ensure compliance with the Wildlife Acts 1976-2010 with regard to the protection of species listed on Schedule 5 of the principal Act
<b>PHH1</b>	To protect populations and human health from exposure to incompatible landuses
<b>S1</b>	To avoid damage to the hydrogeological and ecological function of the soil resource
<b>W1</b>	To maintain and improve, where possible, the quality and status of surface waters
<b>W2</b>	To prevent pollution and contamination of ground water
<b>W3</b>	To comply as appropriate with the provisions of the Planning System and Flood Risk Management: Guidelines for Planning Authorities (DEHLG, 2009)
<b>M1</b>	To serve new development with adequate and appropriate waste water treatment
<b>M2</b>	To serve new development with adequate drinking water that is both wholesome and clean
<b>M3</b>	To reduce waste volumes, minimise waste to landfill and increase recycling and reuse.
<b>C1</b>	To reduce travel related emissions to air and to encourage modal change from car to more sustainable forms of transport
<b>CH1</b>	To protect archaeological heritage including entries to the Record of Monuments and Places and/or their context
<b>CH2</b>	To protect architectural heritage including entries to the Record of Protected Structures and Architectural Conservation Areas and their context
<b>L1</b>	To avoid significant adverse impacts on the landscape - especially with regard to landscapes which are most valuable and most sensitive to change and protected focal points and views

**Table 6.2 Criteria for appraising the effect on SEOs**

Likely to <b>Improve</b> status of SEOs	Probable <b>Conflict</b> with status of SEOs- unlikely to be mitigated	Potential <b>Conflict</b> with status of SEOs- likely to be mitigated
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**Table 6.3 Evaluation of Development Plan Alternative already selected and considered against SEOs**

	Likely to <b>Improve</b> status of SEOs	Probable <b>Conflict</b> with status of SEOs- unlikely to be mitigated	Potential <b>Conflict</b> with status of SEOs- likely to be mitigated
<b>Scenario A:</b>  <b>Compact Town Scenario - County Development Plan Alternative Scenario already selected and considered</b>	<p><b>C1</b> [contributes towards the development of a walkable and accessible town]</p> <p><b>B1 B2 B3 PHH1 S1 W1 W2 W3 M1 M2 M3 CH1 CH2 L1</b>  <b>C1</b> [favours the reuse of under-utilised and brownfield sites over greenfield development]</p> <p><b>M1 M2 M3 C1 W3 PHH1 S1 B1 B2 B3 W1 W2</b> [facilitates service and infrastructure provision in an economically efficient and community friendly manner]</p>		<p><b>B1 B2 B3 PHH1 S1 W1 W2 W3 M1 M2 M3 C1 CH1 CH2 L1</b>          [potential conflicts arising between this scenario and various environmental components – all would be mitigated]</p>

<sup>28</sup> 'Annexed habitats and species' refer to those listed under Annex I, II & IV of the EU Habitats Directive and Annex I of the EU Birds Directive.

<sup>29</sup> See Section 5.1 for a description of Strategic Environmental Objectives.

### 6.3 Limited Consideration of Lower Tier Alternatives with regard to the Variation

The Variation does not provide for any significant increases in land zoned for development however it does provide for the phasing of already zoned lands, with the application of Specific Objective *Residential Phase II (Post 2019)*. As the development is already provided for by the Plan that was adopted in 2009, the population target and phasing of residential lands would be unlikely to result in significant environmental effects.

This specific instance is an assessment of a Variation to the Navan Development Plan 2009-2015 which precludes examination of alterations to the existing zonings, unless there is an interface with the identified flood risk zones.

Notwithstanding this limitation, the Variation was examined to determine the potential for effects to arise from:

- Any alternatives of the detail of the implementation – i.e. from the sequencing or phasing of the development; or
- Any alternatives arising from induced, indirect or secondary developments that could arise from the project.

Two principle potential areas of effect were identified:

1. Sequencing of development could bring about less sustainable patterns of mobility if lands that were more distant from services and utilities were developed first.
2. Indirect effects could arise from the development of lands that require the development or upgrade of new transportation projects. The most significant projects with a potential to give rise to effects are:
  - Project requiring new river crossings; and
  - Projects requiring new or upgraded roads.

New river crossings, in particular, have the potential to give rise to the more significant effects because of the ecological status of the rivers in this area. Other potential effects arising are the loss of agricultural lands and associated threats to biodiversity, cultural heritage and landscape arising from both new roads and river crossings.

The use of lands that could give rise to less sustainable patterns of mobility would principally give rise to effects on air (noise, pollution and energy use) as well as deterioration in the efficient use of material assets – with resultant effects on human beings. These potential impacts are summarised on Table 6.4 below.

**Table 6.4 Potential induced, indirect or secondary effects**

<b>Environmental Component</b>	<b>Potential induced, indirect or secondary effects</b>			
	less sustainable patterns of mobility	requiring new river crossings	requiring new or upgraded roads	
<b>Biodiversity and flora and fauna</b>				
<b>Population and human health</b>				
<b>Soil</b>				
<b>Water</b>				
<b>Material Assets</b>				
<b>Air and climatic factors</b>				
<b>Cultural Heritage</b>				
<b>Landscape</b>				

Table 6.5 shows the ranking of the potential effects for each zoning site according to the criteria of: requirement for a new bridge crossing; and requirement for new road construction.

**Table 6.5 Ranking of sites**

Site Name	New Bridge Required	New Road Required	Proposed Access	Alternative Access
<b>Sites Least Likely to give rise to induced, indirect or secondary environmental effects</b>				
Site N Beechmount			Dan Shaw Rd	na
Site E Blackcastle			N51	na
Site K Academy Street			R 147	Onto LDR1(a) link between Dublin & Trim rds
Site J Swan Lane			Old Balreask Woods	
Site C Simonstown			R 162	na
Site P Commons Lane			Commons Rd	na
Site R St. Pat's N51			R 147	na
Site Q Mullaghboy			Old Athboy Rd	na
Site F Boyne Road			Boyne Rd	na
Site H St. Marthas			R 153	Possible access onto Local Distributor Road through Johnstown Wood
Site I Johnstown			Existing local rd	na
<b>Sites with a greater likelihood of giving rise to induced, indirect or secondary environmental effects</b>				
Site L Trim Road North		R161 & LDR1(a) New Road		na
Site G Farganstown		New Road LDR6		Portion of site can access onto R153 & Old Road Athlumney
Site D Clonmagadden SDZ		New Road LDR5		N51 & R 162
Site O Trim/Commons Rd		New Road LDR2(a)		R161, Commons Rd and through Canterbrook & Balreask Manor housing developments
Site M Trim Road South		New Road LDR1(a)		R161
<b>Sites most likely to give rise to induced, indirect or secondary environmental effects</b>				
Site B Clonmagadden	New over Blackwater	Bridge	May require completion of LDR4	Clonmagadden Rd
Site A Tara Mines	New over Blackwater required	Bridge	New Road LDR4	



Decisions relating to the phasing of zoned lands took into account of a number of considerations - economic, technical, social and environmental. The environmental factors included those above and those specifically and exhaustively assessed as the basis for the previous plan and SEA already referred to as well as those detailed above.

In addition, sustainable transport was examined by the team preparing the Variation with regard to: the potential for permeability; whether the site was served or had the potential to be served by public bus; or whether the site was served or had the potential to be served by the cycle network in the town. With lower scores demonstrating suitability for development, the specific lands identified on Table 6.5 were scored (from a sustainable transport perspective - this relates to SEA C1) from 1 to 5 as follows: Site A - 1; Site B - 1; Site C - 5; Site D - 1; Site E - 1; Site F - 5; Site G - 1; Site H - 1; Site I - 3; Site J - 5; Site K - 1; Site L - 1; Site M - 3; Site N - 1; Site O - 1; Site P - 3; Site Q - 3; Site R - 3; Site S - 5.

The phasing selected for the Variation (indicated by the black shading on yellow 'New Residential' zoned land on Figure 6.1) will further contribute towards sustainable mobility patterns and the accompaniment of water services infrastructure with new development, both of which are which are already contributed towards by the Plan. The phasing will also delay the replacement of non-artificial surfaces with artificial surfaces which could, inter alia, delay potential effects on non-designated ecology.

Potential adverse effects of implementing the Plan as varied will be mitigated by, inter alia, individual measures which have been integrated into the Plan that was adopted in 2009 and additional/amended measures recommended to be integrated into the Plan by this SEA and the AA and SFRA of the Variation. These measures are identified in Section 8.

The Variation was adopted with a number of changes made to the version of the Proposed Variation which was first put on public display. These changes are as follows:

- Master Plan 7 - Lands at Knockumber were zoned for enterprise and employment uses rather than for retail warehousing. This change was

determined as not being likely to result in significant environmental effects.

- The extent of the R1 "Rail Corridor" shown on Map No. 1 Land Use Zoning Objectives and Map No. 2 Development Objectives was amended to correspond with that indicated on the permitted town centre expansion scheme. This change reflected what is already permitted as part of the town centre expansion scheme.
- An interface with the detailed design of Phase II of the Navan Rail Line was added to Map No. 1 Land Use Zoning Objectives and Map No. 2 Development Objectives. This change would further contribute towards efforts to achieve sustainable mobility - these efforts are already contributed towards by the Plan and Variation No. 1.
- Minor changing of phasing on lands situated east of Tubberclare - no significant environmental implications.



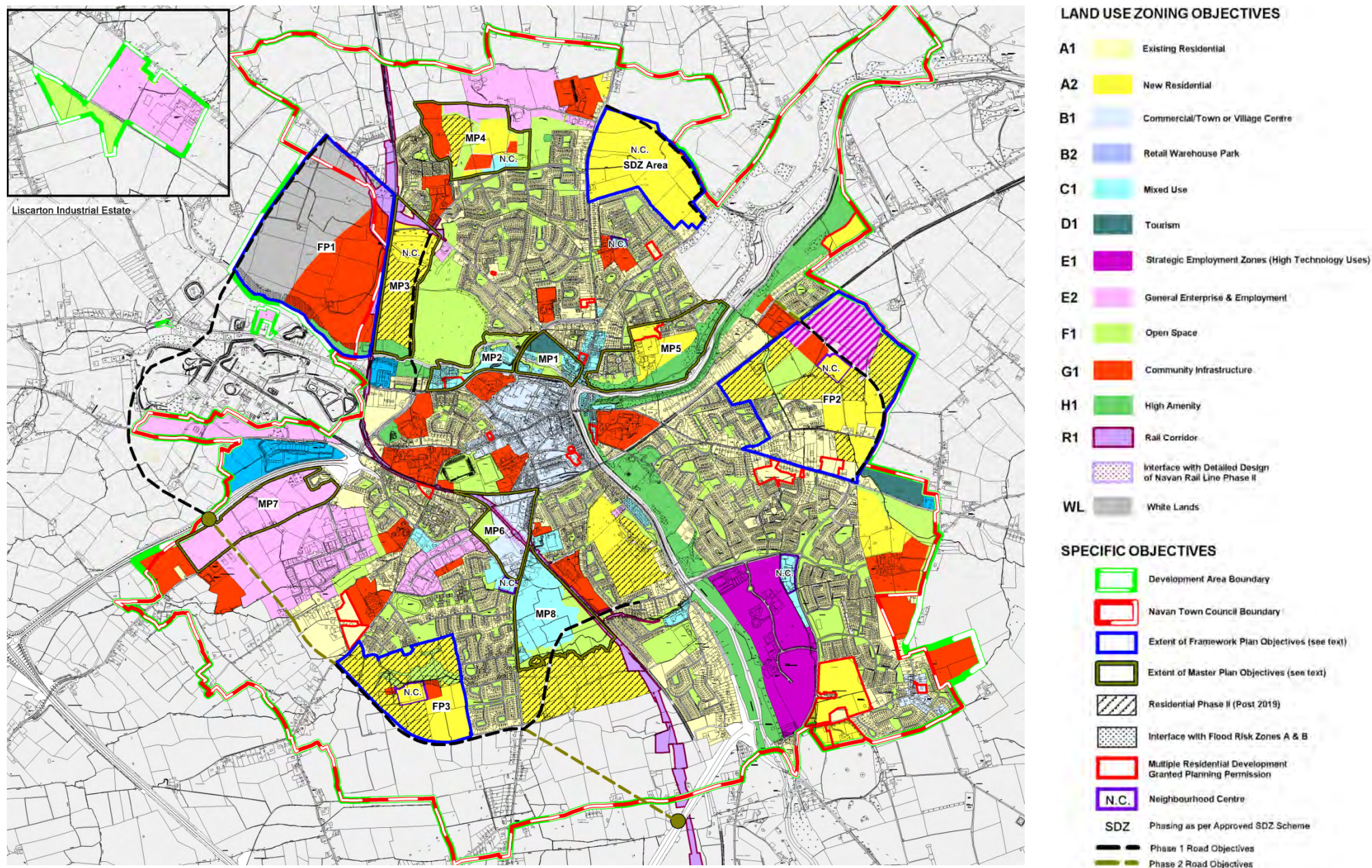


Figure 6.1 Land Use Zoning of the Plan as varied



## Section 7 Evaluation of Variation Provisions

### 7.1 Methodology

The description of the environmental baseline (both maps and text) and Strategic Environmental Objectives (SEOs) are used in the evaluation of alternative scenarios.

The provisions of the Variation are evaluated using compatibility criteria (see Table 7.1 below) in order to determine how they would be likely to affect the status of the SEOs (see Table 7.2).

The SEOs and the text-based provisions are arrayed against each other to identify which interactions - if any - would cause effects 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 the SEO likely to be affected - in this instance 'to ensure compliance with the Habitats Directive with regard to the protection of Natura 2000 Sites and Annexed habitats and species'.

The interactions identified are reflective of likely significant environmental effects<sup>30</sup>;

1. Interactions that would be likely to improve the status of a particular SEO would be likely to result in a significant positive effect on the environmental component to which the SEO relates.
2. Interactions that would probably conflict with the status of an SEO and would be unlikely to be mitigated would be likely to result in a significant negative effect on the environmental component to which the SEO relates.
3. Interactions that would potentially conflict with the status of an SEO and would be likely to be mitigated would be likely to result in potential significant negative effects however these effects would be likely to be mitigated by measures which have been integrated into the Variation.

The degree of significance of effects occurring cannot be fully determined at this level of decision making due to the lack of exact detail available with regard to the type or scale of the specific developments that will be permitted under the Plan as varied.

Mitigation measures to prevent or reduce significant adverse effects posed by the Plan as varied are identified in Section 8 - these have been integrated into the Plan that was adopted in 2009 or the Variation.

**Table 7.1 Criteria for appraising the effect of Variation provisions on SEOs**

Likely to <b>Improve</b> status of SEOs	Probable <b>Conflict</b> with status of SEOs- unlikely to be mitigated	Potential <b>Conflict</b> with status of SEOs- likely to be mitigated	<b>No Likely</b> interaction with status of SEOs
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<sup>30</sup> These effects include secondary, cumulative, synergistic, short, medium and long-term permanent and temporary, positive and negative effects.



**Table 7.2 Strategic Environmental Objectives<sup>32</sup>**

<b>SEO Code</b>	<b>SEO</b>
<b>B1</b>	To ensure compliance with the Habitats and Birds Directives with regard to the protection of Natura 2000 Sites and Annexed habitats and species <sup>31</sup>
<b>B2</b>	To ensure compliance with Article 10 of the Habitats Directive with regard to the management of features of the landscape which - by virtue of their linear and continuous structure or their function act as stepping stones - are of significant importance for wild fauna and flora and/or essential for the migration, dispersal and genetic exchange of wild species
<b>B3</b>	To avoid significant impacts on relevant habitats, species, environmental features or other sustaining resources in designated sites including Wildlife Sites and to ensure compliance with the Wildlife Acts 1976-2010 with regard to the protection of species listed on Schedule 5 of the principal Act
<b>PHH1</b>	To protect populations and human health from exposure to incompatible landuses
<b>S1</b>	To avoid damage to the hydrogeological and ecological function of the soil resource
<b>W1</b>	To maintain and improve, where possible, the quality and status of surface waters
<b>W2</b>	To prevent pollution and contamination of ground water
<b>W3</b>	To comply as appropriate with the provisions of the Planning System and Flood Risk Management: Guidelines for Planning Authorities (DEHLG, 2009)
<b>M1</b>	To serve new development with adequate and appropriate waste water treatment
<b>M2</b>	To serve new development with adequate drinking water that is both wholesome and clean
<b>M3</b>	To reduce waste volumes, minimise waste to landfill and increase recycling and reuse.
<b>C1</b>	To reduce travel related emissions to air and to encourage modal change from car to more sustainable forms of transport
<b>CH1</b>	To protect archaeological heritage including entries to the Record of Monuments and Places and/or their context
<b>CH2</b>	To protect architectural heritage including entries to the Record of Protected Structures and Architectural Conservation Areas and their context
<b>L1</b>	To avoid significant adverse impacts on the landscape - especially with regard to landscapes which are most valuable and most sensitive to change and protected focal points and views

## 7.2 Appropriate Assessment and Strategic Flood Risk Assessment

A Stage 2 Appropriate Assessment (AA) and a Strategic Flood Risk Assessment (SFRA) have both been undertaken alongside the Variation.

The requirement for AA is provided under the EU Habitats Directive (Directive 1992/43/EEC). The requirement for SFRA is provided under 'The Planning System and Flood Risk Management Guidelines for Planning Authorities' (DEHLG, 2009).

The AA concluded that the Variation will not affect the integrity of the Natura 2000 network. All recommendations made by the AA and SFRA were integrated into the Variation.

The preparation of the Variation, SEA, AA and SFRA has taken place concurrently and the findings of the AA and SFRA have informed both the Variation and the SEA.

<sup>31</sup> 'Annexed habitats and species' refer to those listed under Annex I, II & IV of the EU Habitats Directive and Annex I of the EU Birds Directive.

<sup>32</sup> See Section 5.1 for a description of Strategic Environmental Objectives.

## 7.3 Potential Impacts and their Determination

Environmental impacts which occur, if any, will be determined by the nature and extent of multiple or individual projects and site specific environmental factors.

Avoidance of conflict with SEOs and the environment is dependent upon compliance with the mitigation measures which have emerged through the SEA, AA and SFRA processes and which have been integrated into the Variation. The potentially significant adverse environmental effects arising from implementation of the Variation are detailed below.

### Biodiversity and Flora and Fauna

- Loss of biodiversity with regard to Natura 2000 Sites and Annexed habitats and species (see baseline Section 4.3)
- Loss of biodiversity with regard to ecological connectivity and stepping stones (see baseline Section 4.3)
- Loss of biodiversity with regard to designated sites including Wildlife Sites and species listed on Schedule 5 of the Wildlife Act 1976 (see baseline Section 4.3)

### Population and Human Health

- Spatially concentrated deterioration in human health (see baseline Section 4.4)

### Soil

- Damage to the hydrogeological and ecological function of the soil resource (see baseline Section 4.5)

### Water

- Adverse impacts upon the status and quality of water bodies (see baseline Section 4.6)
- Increase in the risk of flooding (see baseline Section 4.6)

### Air and Climatic Factors

- Failure to contribute towards sustainable transport and associated impacts (see baseline Section 4.7)

### Material Assets

- Failure to provide adequate and appropriate waste water treatment (see baseline Section 4.8)
- Failure to comply with drinking water regulations and serve new development with adequate drinking water that is both wholesome and clean (see baseline Section 4.8)
- Increases in waste levels (see baseline Section 4.8)

### Cultural Heritage

- Effects on entries to the Record of Monuments and Places and other archaeological heritage (see baseline Section 4.9)
- Effects on entries to the Records of Protected Structures and other architectural heritage (see baseline Section 4.9)

### Landscape

- Occurrence of adverse visual impacts (see baseline Section 4.10)

## **7.4 Interrelationship between Environmental Components**

The SEA Directive requires the Environmental Report to include information on the likely significant effects on the environment, including on issues such as biodiversity, fauna, flora, population, human health, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above factors.

Likely significant effects on environmental components which are identified include those which are interrelated; implementation of the Plan as varied will not affect the interrelationships between these components. The presence of significant interrelationships between environmental components is identified on Table 7.3.



**Table 7.3 Presence of Interrelationships between Environmental Components**

<b>Component</b>	<b>Biodiversity, flora and fauna</b>	<b>Population and human health</b>	<b>Soil</b>	<b>Water</b>	<b>Air and Climatic factors</b>	<b>Material assets</b>	<b>Cultural heritage</b>	<b>Landscape</b>
<b>Biodiversity, flora and fauna</b>		No	Yes	Yes	Yes	Yes	No	Yes
<b>Population and human health</b>			Yes	Yes	Yes	Yes	No	No
<b>Soil</b>				Yes	No	Yes	No	No
<b>Water</b>					No	Yes	No	No
<b>Air and Climatic factors</b>						Yes	No	No
<b>Material assets</b>							Yes	Yes
<b>Cultural heritage</b>								Yes
<b>Landscape</b>								

## 7.5 Cumulative Effects

Cumulative effects are one of the types of effects which have been considered in the assessment of Variation provisions. Cumulative effects can be described as the addition of many small impacts to create one larger, more significant, impact.

There are 2 types of potential cumulative effects that have been considered, namely:

- Potential *intra-Plan* cumulative effects - these arise from the interactions between different types of potential environmental effects resulting from a Plan, or variation to a Plan; and,
- Potential *inter-Plan* cumulative effects - these arise when the effects of the implementation of one plan, or variation to a plan, occur in combination with those of other plans or developments.

A variety of potential *intra-Plan* cumulative environmental effects occur when considering the implementation of the Variation. The interrelationships between environmental components that determine these potential effects are identified on Table 7.3 e.g. interrelationships between: human health and water quality; human health and air quality; and human health and flood risk.

With regard to potential *inter-Plan* cumulative environmental effects, these occur as a result of the combination of: potential environmental effects which are identified by the assessment as arising from Variation measures; and the effects arising from other plans or developments. Other Plans and developments which have been considered by the assessment of environmental effects include those which are detailed under Section 2.3 Relationship with other relevant Plans and Programmes and those which are detailed throughout Section 4 and Section 5.

The assessment of the likely *inter-Plan* cumulative environmental effects requires knowledge of the likely effects of all plans/developments under consideration. The assessment is limited in this instance as there has been limited assessment of the likely types of developments provided for by other policies, plans and programmes that could occur in combination with the implementation of the Variation. Taking into account available information, the key potential *inter-Plan* cumulative environmental effects that are considered in the assessment relate to effects upon the status of surface and ground waters and associated interactions (in combination with Regional Planning Guidelines, Development Plans and River Basin Management Plans), such as those related to ecology and drinking water resources, and potential effects upon the landscape. Other potential *inter-Plan* cumulative environmental effects include those occurring on various environmental components within areas where the County Development Plan is in force and the potential cumulative visual impact of development in areas adjacent to the Town Development Plan area.

Effects that may arise as a result of implementing the Variation have been mitigated to the extent that the only residual effects likely to occur as a result of implementation of the Variation are those which are identified under Section 7.6.

## 7.6 Residual Adverse Effects

Section 8 outlines the measures that have mitigated and will mitigate the potential negative effects that are detailed above. Residual adverse effects likely to occur - considering the extent of detail provided by the Plan and assuming that all mitigation measures are complied with by development - are identified for each of the environmental components as follows:

### Biodiversity and Flora and Fauna

- Loss of an extent of non-protected habitats arising from the replacement of semi-natural land covers with artificial surfaces

### Population and Human Health

- None

Soil

- Loss of an extent of soil function arising from the replacement of semi-natural land covers with artificial surfaces

Water

- Flood related risks remain due to uncertainty with regard to extreme weather events

Air and Climatic Factors

- None

Material Assets

- Residual wastes to be disposed of

Cultural Heritage

- Potential alteration to the context and setting of architectural heritage (Protected Structures) however these will occur in compliance with legislation
- Potential alteration to the context and setting of archaeological heritage (Recorded Monuments) however this will occur in compliance with legislation
- Potential loss of unknown archaeology however this loss will be mitigated by measures integrated into the Plan

Landscape Designations

- None<sup>33</sup>

## 7.7 Detailed Evaluation of Plan Provisions

Note that:

- Proposed changes that would not result in environmental effects are not listed here.
- Existing Plan text (that was adopted in 2009) is black.
- Existing Plan text (that was adopted in 2009) that is proposed to be deleted is ~~black strikethrough~~
- New text that is proposed to be added is red.

### 7.7.1 Overall Findings

The overall findings (in addition to those detailed in preceding sections) are that:

- The Council have integrated all recommendations arising from the SEA, AA and SFRA into the Variation;
- Some Variation provisions would be likely to result in significant positive effects upon all of the environmental components; and
- Some Variation provisions would have the potential to result in significant negative environmental effects (these are described below) however these effects will be mitigated by the mitigation measures which have been integrated into the Variation or the Plan that was adopted in 2009 (see Section 8).

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<sup>33</sup> The Plan contributes towards the protection of landscape designations. Navan's landscapes will change overtime as a result of natural changes in vegetation cover combined with new developments.



## 7.7.2 Chapter 2A: Core Strategy

	Likely to <b>Improve</b> status of SEOs	Probable <b>Conflict</b> with status of SEOs - unlikely to be mitigated	Potential <b>Conflict</b> with status of SEOs- likely to be mitigated	<b>No Likely</b> interaction with status of SEOs
<b>Core Strategy Policy and Objectives</b>				
<p>CS POL 1 To promote land-use planning measures which aim for transportation efficiency, economic returns on transport investment, minimisation of environmental impacts and a general shift towards the use of public transportation.</p> <p>CS OBJ 1: To promote and facilitate the development of sustainable communities through land use planning, by providing for land uses capable of accommodating employment, community, leisure, recreational and cultural facilities having regard to the quality of the environment, including the natural environment, landscape character and the archaeological and architectural heritage.</p> <p>CS OBJ 2: To ensure that planning applications for residential development adhere to the Order of Priority Phasing Programme for Navan as set out in Table 2A4 of this Development Plan. The Phase 1 lands include those sites with the benefit of an extant planning permission for multi unit residential development from the date of publication of Variation No. 1 of the Navan Development Plan. No extension of duration permitted for multiple unit residential developments pursuant to Section 42 of the Planning and Development Act 2000-2014 shall extend the life of the planning permission beyond the period of the Meath County Development Plan 2013 – 2019..</p> <p>CS OBJ 3: To operate an Order of Priority for the release of residential lands as follows:</p> <p>(i) The lands identified with an A2 "New Residential" land use zoning objective corresponds with the requirements of Table 2A4 of this Development Plan and are available for residential development within the life of this Development Plan.</p> <p>(ii) The lands identified with an A2 "New Residential" land use zoning objective but qualified as "Residential Phase II (Post 2019)" are not available for residential development prior to 2019.</p> <p>CS OBJ 4 To implement the measures contained in the Navan Local Transport Plan 2014-2019.</p> <p>CS OBJ 5 To support the continued development of Navan as a Level 2 Retail Centre and the primary retail destination in County Meath.</p> <p>CS OBJ 6 To implement the provisions of the Meath County Retail Strategy 2013 – 2019 as they relate to Navan town and environs.</p>	<p><b>C1 B1 B2 B3</b> <b>PHH1 S1 W1 W2</b> <b>W3 M1 M2 M3</b> <b>CH1 CH2 L1 C1</b></p>		<p><b>B1 B2 B3 PHH1</b> <b>S1 W1 W2 W3 M1</b> <b>M2 M3 C1 CH1</b> <b>CH2 L1</b></p>	
<p><b>Commentary:</b> The evaluation of the Core Strategy Policy and Objectives is consistent with the evaluation as detailed in full under Section 6 Alternatives.</p>				

## 7.7.3 Chapter 3: Settlement Strategy and Housing

	Likely to <b>Improve</b> status of SEOs	Probable <b>Conflict</b> with status of SEOs - unlikely to be mitigated	Potential <b>Conflict</b> with status of SEOs- likely to be mitigated	<b>No Likely</b> interaction with status of SEOs
<b>Settlement Strategy and Housing Objectives</b>				
<p>Settlement Strategy OBJ 16 To prepare Local Area Plans for lands designated LAP 1 (as outlined below) in co-operation with relevant stakeholders, and to actively secure the implementation of these plans and the achievement of the specific objectives indicated below. Development of these lands shall only proceed on the basis of an adopted Local Area Plan, the availability of water and waste water services associated infrastructure including the phased provision of these services and the timely provision of the relevant sections of the Local Distributor Road network, where applicable.</p> <p>LAP 1 relates to lands adjoining and including St. Martha's College, Johnstown. This area is intended for general</p>	<p><b>C1 B1 B2 B3</b> <b>PHH1 S1 W1 W2</b> <b>W3 M1 M2 M3</b> <b>CH1 CH2 L1 C1</b></p>		<p><b>B1 B2 B3 PHH1</b> <b>S1 W1 W2 W3 M1</b> <b>M2 M3 C1 CH1</b> <b>CH2 L1</b></p>	

<p>development, primarily to provide for community, education, residential and recreational facilities, and shall also provide for inter alia the following:</p> <p>1. The reservation of an 11 acre site for the provision of 1 no. primary school and 1 no. special school provided in an educational campus</p> <p>2. The reservation of a 12 acre site for the provision of a secondary school provided in an educational campus</p> <p>3. The reservation of a 1.5 acre site for the provision of a primary health care unit</p> <p>4. A community/resource centre</p> <p>5. A comprehensive landscaping scheme.</p> <p>6. Provision of pedestrian and other non vehicular linkages from the site to the residential areas to the west.</p> <p>7. Provision of adequate public lighting and footpaths throughout the lands and along the R153 to the north of the site and the L5050 to the east of the site.</p> <p>8. Provision of improvement works to the County Road L5050 to include its realignment, traffic calming measures and public footpaths and lighting.</p> <p>9. The reservation of 5.5 acres of the F1 zoned lands for the purposes of soccer playing pitches to serve the needs of Johnstown and Athlumney;</p> <p>10. The provision of a playground.</p> <p>The development of these lands shall be on a phased basis. No residential development shall be occupied on these lands prior to the delivery of the following:</p> <p>a) The primary school and the special school</p> <p>b) The area of public open space.</p> <p>c) Provision of adequate public lighting and footpaths throughout the lands and along the R153 to the north of the site and the L5050 to the east of the site.</p> <p>e) Provision of improvement works to the County Road L5050 to include its realignment, traffic calming measures, public footpaths and lighting.</p> <p>It shall be a requirement of the Planning Authority that all development proposals are in accordance with the provisions of the Local Area Plan.</p> <p>To prepare a Framework Plan for lands designated FP1 (as outlined below) in co-operation with relevant stakeholders, and to actively secure the implementation of these plans and the achievement of the specific objectives indicated below. Development of these lands shall only proceed on the basis of an agreed overall Framework Plan, the availability of water and waste water services associated infrastructure including the phased provision of these services and the timely provision of the relevant sections of the Local Distributor Road network, where applicable:</p> <p>FP 1 relates to lands off the Rathaldron Road at Nevinstown which are subject to a G1, H1 and 'White Lands' zoning objective. This area is intended primarily for community facilities to provide for the Regional Hospital and ancillary healthcare uses and shall also provide for inter alia the following:</p> <p>1. The timely delivery of LDR 3 Local Distributor Road linking the Rathaldron Road to the Athboy Road</p> <p>2. A high standard of design, finish and layout;</p> <p>3. A comprehensive landscaping plan;</p> <p>4. Infrastructural requirements including access for vehicles, pedestrians, cyclists and people with disabilities, car parking and vehicle turning, and;</p> <p>5. Provision of adequate public lighting and footpaths throughout the lands.</p> <p>It shall be a requirement of the Planning Authority that all development proposals are in accordance with the provisions of the Framework Plan.</p> <p>It is noteworthy that there is an additional specific objective pertaining to these lands in relation to the proposed Regional Hospital. (Map No. 2 Development Objective refers). Regard shall be had to this objective as part of any Framework Plan for the subject lands.</p> <p>Settlement Strategy OBJ 17: To require that development proposals for lands located within the boundary of Framework Plan Area 2 accord with the Framework Plan for this area (see Appendix V).</p> <p>Settlement Strategy OBJ 18: To require that development proposals for lands located within the boundary of Framework Plan Area 3 accord with the Framework Plan for this area (see Appendix V).</p> <p>Settlement Strategy OBJ 19: To require the preparation of a Master Plan for lands identified on the Land Use Zoning Objectives Map with any planning application submitted for the lands or any part thereof. The Master Plan shall show the overall layout for the lands as a whole and the proposed phasing arrangements which shall be consistent with the Core</p>				
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<p>Strategy for this Development Plan and the phasing shown on the Land Use Zoning Map. New Master Plans shall be prepared for the following areas:</p> <p>Master Plan 3 relates to residentially zoned lands between the Town Park and the existing Navan – Kingscourt Rail Line. This area is intended for general development, primarily to provide for residential with ancillary community, recreational and employment uses and shall also provide for inter alia the following:</p> <ul style="list-style-type: none"> <li>• The timely delivery of LDR 4 Local Distributor Road within the Master Plan boundary;</li> <li>• A neighbourhood centre;</li> <li>• A medical centre, and;</li> <li>• Community/Resource Centre.</li> </ul> <p>The development of these lands shall be on a phased basis in accordance with the land use zoning objectives map. The Planning Authority shall have regard to the outcome of the Transport Assessment required pursuant to INF OBJ 8 (c) in permitting the release of lands identified as Phase 1 residential lands.</p> <p>Master Plan 4 relates to lands north of the existing Clonmagadden Road linking the Proudstown Road and Rathaldron Road and south of Kilsaran Lane. This area is intended for general development, primarily to provide for community, recreational and education facilities, and shall also provide for inter alia the following:</p> <ul style="list-style-type: none"> <li>• A secondary school as part of the educational campus;</li> <li>• A Medical centre;</li> <li>• Local shopping facilities shall be appropriate in scale and do not unduly interfere with the predominant community, recreational and educational land use, and;</li> <li>• Pedestrian and cycle linkages from the site to the adjoining residential areas.</li> </ul> <p>The development of these lands shall be on a phased basis in accordance with the land use zoning objectives map. The Planning Authority shall have regard to the outcome of the Transport Assessment required pursuant to INF OBJ 8 (c) in permitting the release of lands identified as Phase 1 residential lands and other non residential lands.</p> <p>Master Plan 5 relates to an area surrounding Blackcastle House and its former demesne. This area shall be for residential development to include renovation and adaptation proposals for Blackcastle House (Protected Structure). The Master Plan shall provide for the continuation of the Local Distributor Road through Fitzherbert Court &amp; Blackcastle Demesne housing developments onto the Slane Road.</p> <p>Master Plan 6 relates to land adjoining the existing town centre which provides primarily for the area designated for town centre expansion and will benefit from the influence of the proposed Navan central train station in the long term. This area shall accommodate primarily town centre uses but shall also include ancillary uses. The Master Plan shall provide for, inter alia, the following:</p> <ul style="list-style-type: none"> <li>• The reservation of land to develop a public transport interchange providing a central rail station serving the Navan-Dublin rail line in adherence to the detailed design prepared by Iarnród Éireann - Irish Rail;</li> <li>• A civic plaza;</li> <li>• Pedestrian and cycle linkages from the site to the Town Centre and Brews Hill areas;</li> <li>• Statement buildings of innovative high quality architectural design;</li> <li>• A community building;</li> <li>• Residential uses, and;</li> <li>• Entertainment and cultural uses.</li> </ul> <p>The development of these lands shall be on a phased basis in accordance with the agreed Masterplan. The Planning Authority shall have regard to the outcome of the Transport Assessment required pursuant to INF OBJ 8 (c) in permitting individual development proposals.</p> <p>The Planning Authority acknowledges that a Master Plan was prepared and submitted with the successful planning applications for the town centre expansion the subject of planning register reference numbers NA 900139 &amp; NT900002. Any subsequent planning application within these lands shall be considered in the context of the existing Master Plan prepared for the area bounded the Trim Road, Carriage Road and Dan Shaw Road unless an amended Master Plan is prepared to accompany any such new planning application. Any application advanced in the wider area covered by Master Plan 6 primarily relating to lands along the northern side of Carriage Road shall incorporate the existing Master Plan in place at that time for the area bounded the Trim Road, Carriage Road and Dan Shaw Road.</p> <p>Master Plan 7 relates to lands off the Athboy Road immediately south of the motorway interchange at Knockumber. The area is intended primarily for enterprise and employment uses.</p>				
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<p>Master Plan 8 relates to a triangle of land formed by the Trim Road, the former Navan-Dublin Rail Alignment and lands adjoining the Swan River. This area shall be for general development primarily providing for mixed use development and public open space/amenity and shall also provide for, inter alia, the following;</p> <ul style="list-style-type: none"> <li>• The provision of a maximum of 300 no. residential units within the life of the Development Plan on a phased basis as follows:</li> </ul> <p>o Phase I shall provide a maximum of 150 no. residential units and shall provide for the provision of the extent of LDR 1 (a) contained within the Master Plan boundary. This shall adhere to an agreed alignment as provided by the Roads Authority for the provision of LDR 1 (a) in its entirety. Development may proceed and be occupied in advance of this section of LDR 1 (a) being completed subject to a traffic impact assessment indicating capacity in the local road network as required pursuant to INF OBJ 2 (c).</p> <p>o Phase II may commence after a minimum of 80% of the residential component of Phase I has been completed and shall provide a maximum of 150 no. residential units. No residential development shall be occupied within Phase II until a connection has been secured by the Roads Authority working in collaboration with the landowners within Master Plan 8 of a link road connecting the Trim Road with the Dublin Road. It is envisaged that such a link will connect the alignment indicated on the development objectives map with the permitted LIDL access road and other connections as considered appropriate.</p> <ul style="list-style-type: none"> <li>• Design principle shall seek to ensure that majority of commercial development adjoins the northern portion of the site;</li> <li>• Provision of a large area of public open space, which /amenity may be included in the partial calculation of public open space in certain circumstances within a given residential development in MP 8;</li> <li>• Childcare facilities;</li> <li>• The provision of a Medical Centre;</li> <li>• The provision of a Community/Resource Centre;</li> <li>• A comprehensive landscaping scheme;</li> <li>• Provision of adequate public lighting and footpaths throughout the lands;</li> <li>• High quality design, finish and layout, and;</li> <li>• Infrastructural requirements including access for vehicle, pedestrians, cyclists and people with disabilities, car parking and vehicle turning.</li> </ul> <p>It will be a requirement to seek financial contributions from all relevant benefiting parties towards the cost of infrastructural improvements both inside and outside the area including Local Distributor Road LDR 1 (a). This may include consideration of a Supplementary Development Contribution Scheme pursuant to Section 49 of the Planning &amp; Development Act 2000-2014.</p> <p>Settlement Strategy OBJ 20 To require that applications for development on the lands identified as Master Plan 1 and Master Plan 2 shall accord with the Area Action Plans previously prepared for these lands (Area Action Plan 1 and 2 respectively) unless alternative proposals to the satisfaction of the Planning Authority are provided as part of the planning application.</p> <p>Land Use Zoning OBJ 1</p> <p>Any application for planning permission for new development, extension to existing development or intensification or change of use shall be assessed in terms of its potential impact on existing adjacent developments, existing land uses and/or the surrounding landscape. Where such development would have a significant adverse effect on the amenities of the area through pollution by noise, fumes, dust, grit or vibration, or cause pollution of air, water and/or soil, planning permission will not be forthcoming, prior to the proposal and introduction of mitigation measures agreed with the planning authority to eliminate negative environmental impacts or reduce them to an acceptable operating level.</p> <p>Land Use Zoning OBJ 2</p> <p>To commence the revocation process of Local Area Plan No. 1, 2 &amp; 4 following the making of Variation No. 1 to the Navan Development Plan 2009-2015.</p> <p>Housing Strategy POL 14</p> <p>To require that developers comply with Part V of the Planning and Development Acts 2000-2014, as amended. <del>The following in general, options a) – d) provided under the Planning and Development Act, 2000 as amended shall</del> <b>may</b> be used in satisfying the social housing requirements of this Housing Strategy. <del>Where the transfer of land, serviced or partially serviced sites or of completed houses at a location other than where the scheme which is being developed, the location of same must be within the Electoral Area of the development which is subject to the requirements of Part V.</del></p>				
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(a) Financial contribution (as provided for under section 96(3)(b)(vi) of the Planning and Development Acts 2000 – 2014); (b) Direct provision of the housing units on completion as determined in accordance with the Strategy, integrated as part of the overall development of a site; (c) The transfer of a portion of the site which is the subject of the planning application to the respective Council which will enable the Council to provide the appropriate number of units thereon in satisfaction of the requirements of the Housing Strategy or the disposal of a number of fully or partially serviced sites within the site to the respective Council which will enable the Council to provide the appropriate number of units thereon in satisfaction of the requirements of the Housing Strategy or the transfer to the planning authority of the ownership of any other land within the functional area of the planning authority.				
<b>Commentary:</b> The evaluation of the Settlement Strategy and Housing Objectives is consistent with the evaluation as detailed in full under Section 6 Alternatives.				

## 7.7.4 Chapter 4: Economic Development Strategy

	Likely to <b>Improve</b> status of SEOs	Probable <b>Conflict</b> with status of SEOs - unlikely to be mitigated	Potential <b>Conflict</b> with status of SEOs- likely to be mitigated	<b>No Likely</b> interaction with status of SEOs
<b>Economic Development Policies and Objectives</b>				
ECON DEV POL 9 The Councils, in tandem with the EPA, will seek to ensure that all developments are operated in a manner that does not contribute to deterioration in air quality. ECON DEV POL 10 To seek to consider noise emissions in accordance with good practice and relevant legislation.	PHH1 B1 B2 B3			S1 W1 W2 W3 M1 M2 M3 C1 CH1 CH2 L1
ECON DEV OBJ 6 Navan Town Council and Meath County Council shall facilitate the Health Service Executive and the Department of Health in the provision of a new Regional Hospital in Navan. Navan Town Council and Meath County Council's have identified lands within Framework Plan 1 as their preferred location to develop the new Regional Hospital and have identified it as one of the most important potential economic stimulants for this town and region building on the high level economic objective contained in the Meath County Development Plan 2013-2019.	C1 B1 B2 B3 PHH1 S1 W1 W2 W3 M1 M2 M3 CH1 CH2 L1		B1 B2 B3 PHH1 S1 W1 W2 W3 M1 M2 M3 C1 CH1 CH2 L1	
<b>Commentary:</b> ECON DEV POL 8 and 9 would be likely to contribute towards the protection of human health and biodiversity and flora and fauna, thereby improving the status of <b>SEOs PHH1, B1, B2 and B3</b> . ECON DEV OBJ 6 has been considered as part of the assessment of alternatives and would be likely to interact directly and indirectly with a variety of environmental components.				
<b>Retail Policies</b>				
RET DEV POL 1 To promote and encourage major enhancement and expansion of retail floorspace and town centre functions in Navan on lands identified with a B1 "Town Centre" land use zoning objective to include the identified area for town centre expansion, in a southerly direction towards the proposed central interchange in order to sustain its competitiveness and importance as a designated County Town Centre and 'Level 2 Centre' in the Greater Dublin Area.				PHH1 B1 B2 B3 S1 W1 W2 W3 M1 M2 M3 C1 CH1 CH2 L1
'RET DEV POL 6: To encourage and enhance the a range of shopping facilities and particularly major comparison retail provision, in Navan Town Centre as defined by lands identified with a B1 "Town Centre" land use zoning objective				PHH1 B1 B2 B3 S1 W1 W2 W3 M1 M2 M3 C1 CH1 CH2 L1
<b>Retail Development Objectives</b>				
RET DEV OBJ 6 (a) To promote the development of a discount retail outlet off the Trim Road. (b): To implement the following specific objectives for Navan, as identified within the County Retail Strategy, in order to ensure the continued vitality and viability of Navan Town Centre, including: i. Facilitate and promote a new retail hub (retail, business and an element of residential) around the future central rail station. ii. Promote and encourage the provision of new major comparison shopping outlets on lands identified with a B1	B1 B2 B3 PHH1 S1 W1 W2 W3 M1 M2 M3 CH1 CH2 L1 C1		B1 B2 B3 PHH1 S1 W1 W2 W3 M1 M2 M3 CH1 CH2 L1	

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<p>"Town Centre" land use zoning objective which seeks to enhance the role and function of Navan as the County's primary shopping destination</p> <p>iii. Facilitate the identification, promotion and development of key town centre opportunity sites;</p> <p>iv. Promote the revitalisation of vacant and derelict properties/shop units;</p> <p>v. Encourage infill development and the redevelopment of derelict and obsolete sites;</p> <p>vi. Promote ongoing environmental improvements to the public realm;</p> <p>vii. Prevent overdevelopment of particular non retail uses such as takeaways in Core Retail Areas;</p> <p>viii. Promote activities including festivals, events, street markets and farmers/country markets in Navan.</p>				
<p>RET DEV OBJ 1: To assess the provision of new retail development outside the designated retail core area and the identified town centre expansion area (both areas located on lands identified with a B1 "Town Centre" land use zoning objective), in accordance with the sequential test as outlined in the County Meath Retail Strategy.</p>				<p>PHH1 B1 B2 B3 S1 W1 W2 W3 M1 M2 M3 C1 CH1 CH2 L1</p>
<p><b>Commentary:</b></p> <p>By providing for development within the town centre thereby potentially resulting in higher levels of brownfield development and lower levels of Greenfield development, RET DEV OBJ 6 would improve the status of various SEOs including those relating to sustainable mobility and the protection of biodiversity, water and soil resources. By providing for development, this policy would present a number of potential conflicts with environmental components that would be mitigated by measures which have been integrated into the Plan that was adopted in 2009 or the Variation.</p>				
<p><b>Tourism Objectives</b></p>				
<p>TOU OBJ 7 To prepare a Tourism Strategy for Navan in conjunction with key tourism stakeholders to include Meath Tourism &amp; Boyne Valley Tourism. The preparation of the Tourism Strategy shall be subject to the requirements of Strategic Environmental Assessment and Appropriate Assessment.</p>			<p>B1 B2 B3 PHH1 S1 W1 W2 W3 M1 M2 M3 CH1 CH2 L1</p>	
<p><b>Commentary:</b></p> <p>The content and provisions of such a strategy would be uncertain. Arising from potential tourism related developments, land uses or activities, including associated potential increases in tourist numbers, the Strategy would have the potential to conflict with the following environmental components within and beyond the town:</p> <ul style="list-style-type: none"> <li>- protecting biodiversity and flora and fauna;</li> <li>- protecting human health;</li> <li>- protecting soil function and the status of water bodies;</li> <li>- minimising increases in flood risk;</li> <li>- minimising impacts upon archaeological and architectural heritage, including context;</li> <li>- minimising visual impacts;</li> <li>- the provision of adequate and appropriate water services; and</li> <li>- minimising waste levels.</li> </ul> <p>Potential adverse effects on these environmental components would be mitigated by the measures which have been integrated into the Plan that was adopted in 2009 or the Variation.</p>				
<p><b>Retail Warehousing Policies</b></p>				
<p>RET DEV POL 13: To encourage the provision of retail warehousing at appropriate locations and appropriate scale having regard to the 'Retail Strategy for the Greater Dublin Area' and the 'County Meath Retail Strategy', and the Retail Planning Guidelines 2012 (or as otherwise amended).</p>	C1 PHH1			<p>B1 B2 B3 S1 W1 W2 W3 M1 M2 M3 CH1 CH2 L1</p>
<p><b>Commentary:</b></p> <p>The reference to the 2021 Retail Planning Guidelines in RET DEV OBJ 13 would be likely to further contribute towards efforts to improve sustainable mobility levels (SEO C1) and could indirectly contribute towards the protection of human health (SEO PHH1).</p>				

## 7.7.5 Chapter 5: Architectural and Natural Heritage

	Likely to <b>Improve</b> status of SEOs	Probable <b>Conflict</b> with status of SEOs - unlikely to be mitigated	Potential <b>Conflict</b> with status of SEOs- likely to be mitigated	<b>No Likely</b> interaction with status of SEOs
<b>Architectural and Natural Heritage Policies and Objectives</b>				
<p>HER OBJ 8: <del>Subject to the provisions of the Habitats and Birds Directives, to</del> To promote the sustainable usage of the River Boyne for amenity/recreational <del>and educational purposes use including the creation of an urban habitat.</del></p> <p>HER POL 16: To maintain, protect and where possible enhance, the conservation value of the <del>River Boyne and River Blackwater</del> cSAC <del>and SPA</del> in Navan and any additional sites that may be proposed for designation during the lifetime of this Plan and to ensure that development within the Navan Development Plan boundary will not give rise to negative impacts on the River Boyne and River Blackwater cSAC <del>and SPA</del> outside of the Plan area.</p> <p>HER POL 17: To have regard to the views and guidance of the National Parks and Wildlife Service of the <del>Department of Arts, Heritage and the Gaeltacht</del> <del>DoEHLG</del> in respect of proposed development where there is a possibility that such development may have an impact on the River Boyne and River Blackwater candidate Special Area of Conservation <del>or Special Protection Area.</del></p> <p>HER POL 18: <del>To require any planning application that proposes development within or adjacent to the area designated as a cSAC to be accompanied by an ecological impact assessment carried out by appropriate professionals. The Ecological Impact Assessment will be forwarded to the National Parks &amp; Wildlife Service of the Department of the Environment, Heritage &amp; Local Government for their comments prior to the making of a decision by the appropriate planning authority.</del></p> <p>It is the policy of the Council to protect sites designated in National and European legislation, and in other relevant International Conventions, Agreements and Processes. This includes sites proposed to be designated or designated as:</p> <ul style="list-style-type: none"> <li>• Special Areas of Conservation under the Habitats Directive<sup>1</sup> (Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora)</li> <li>• Special Protection Areas under the Birds Directive (Council Directive 79/409/EEC on the conservation of wild birds)</li> </ul> <p>Both the Birds and Habitats Directives have been transposed in Irish law by Ministerial Regulation. The European Communities (Birds and Natural Habitats) Regulations 2011 are the most important of these because they provide for the protection measures and management regime that apply to SPAs and SACs.</p> <p>No projects giving rise to significant cumulative, 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 (Except as provided for in Section 6(4) of the Habitats Directive, viz. there must be:</p> <ol style="list-style-type: none"> <li>a. no alternative solution available,</li> <li>b. imperative reasons of overriding public interest for the plan to proceed; and</li> <li>c. adequate compensatory measures in place.)</li> </ol> <ul style="list-style-type: none"> <li>• Natural Heritage Areas (NHAs), Nature Reserves, and Refuges for Flora or Fauna under the Wildlife Act, 1976 as amended by Wildlife (Amendment) Act, 2000</li> </ul> <p>HER POL 19: <del>To permit development in a designated SAC or those proposed to be designated over the period of this plan, only where an assessment carried out to the satisfaction of the Planning Authority and National Parks &amp; Wildlife Service of DoEHLG, indicates that it will have no significant adverse effect (such as disturbance, pollution or deterioration of habitat quality) on the protected area.</del></p> <p>HER POL 21: No projects giving rise to significant cumulative, 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),</p>	<p><b>B1 B2 B3 PHH1</b> <b>S1 W1 W2 W3 M1</b> <b>M2 CH1 CH2 L1</b></p>		<p><b>B1 B2 B3 PHH1</b> <b>S1 W1 W2 M2</b></p>	<p><b>M3</b></p>



<p>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).<sup>34</sup></p> <p>HER POL 21A: To ensure compliance with the Wildlife Acts 1976-2010 with regard to the protection of species listed on Schedule 5 of the principal act.</p> <p>HER POL 21B: To encourage and facilitate the development of green infrastructure that recognises the synergies that can be achieved with regard to the following:</p> <ul style="list-style-type: none"> <li>• Provision of open space amenities</li> <li>• Sustainable management of water</li> <li>• Protection and management of biodiversity</li> <li>• Protection of cultural heritage</li> <li>• Protection of protected landscape sensitivities.</li> </ul>				
<p><b>Commentary:</b></p> <p>These changes would be likely to positively affect the protection of biodiversity and flora and fauna (<b>SEOs B1 B2 B3</b>) and would also contribute towards the protection of other environmental components including water and soil resources (<b>SEOs W1 W2 S1</b>), human health (<b>SEO PHH1</b>), flood risk management (<b>SEO W3</b>) and sustainable mobility (<b>SEO C1</b>).</p> <p>The development of green infrastructure would have the potential to impact upon environmental components however these conflicts would be likely to be mitigated by the measures which have been integrated into the Variation or existing Plan, including those which have emerged from this SEA process.</p>				

## 7.7.6 Chapter 6: Social Strategy

	Likely to <b>Improve</b> status of SEOs	Probable <b>Conflict</b> with status of SEOs - unlikely to be mitigated	Potential <b>Conflict</b> with status of SEOs- likely to be mitigated	<b>No Likely</b> interaction with status of SEOs
<b>Education Objectives</b>				
<p>ED OBJ 6 To facilitate the Department of Education and Science and reserve a site for the provision of a primary school in land located to the east of Navan Town Centre as part of the Framework Plan 2 for lands at Athlumney, Bailis, Alexander Reid and Ferganstown and Ballymacon.</p> <p>ED OBJ 10 To reserve lands and support the provision of an educational campus at Johnstown/Athlumney to accommodate a primary school, post primary school and special school.</p>	<b>C1</b>		<b>B1 B2 B3 PHH1 S1 W1 W2 W3 M1 M2 M3 CH1 CH2 L1</b>	
<p><b>Commentary:</b></p> <p>These provisions would have the potential to contribute towards sustainable mobility however potential conflicts would occur – either directly or indirectly - with most other environmental components. These would be likely to be mitigated by the measures which have been integrated into the Variation or existing Plan, including those which have emerged from this SEA process.</p>				
<b>Community &amp; Resource Centres Objectives</b>				
<p>ED OBJ 14 To reserve lands in the vicinity of Duffsland (FP 3), Athlumney/Bailis/Alexander Reid/ Ferganstown /Ballymacon (FP 2), Clonmagadden (FP 2 MP 4), Windtown (FP 4 MP 3), Carriage Road (FP 4 MP 6), Trim Road (FMP 7 8) and Johnstown (LAP 1) to facilitate the provision of community resource centres in the residential suburbs of Navan.</p>	<b>C1</b>		<b>B1 B2 B3 PHH1 S1 W1 W2 W3 M1 M2 M3 CH1 CH2 L1</b>	
<p>By facilitating the provision built development in these additional areas, this change would be likely to result in potential conflicts with environmental components across a larger area. By facilitating the provision of services locally, the change contributes towards efforts to improve sustainable mobility levels (<b>SEO C1</b>).</p>				
<b>Public Open Space Objectives</b>				
<p>SOC POL 23 To develop an integrated green structure for the town, linking open spaces along the riverbanks of the Boyne &amp; Blackwater with the town centre and its environs and historical features, in such a manner so as not to significantly negatively impact on the cSAC or SPA either alone or in combination with other objectives in this or other plans.</p> <p>SOC OBJ 7 To develop a system of linear parks and waterfront amenity areas with walkways and cycleways, subject to the availability of resources, along the Banks of the Boyne and Blackwater Rivers, in such a manner so as not to</p>	<b>B1 B2 B3 PHH1 S1 W1 W2 M1</b>			<b>M3 W3 M2 CH1 CH2 L1</b>

<sup>34</sup> 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.

significantly negatively impact on the cSAC <b>or SPA</b> either alone or in combination with other objectives in this or other plans. SOC OBJ 8 To promote the provision of pedestrian and cycle links across rivers to ensure full accessibility, integration and usage of public open space in such a manner so as not to significantly negatively impact on the cSAC <b>or SPA</b> either alone or in combination with other objectives in this or other plans.				
<b>Commentary:</b> By adding a reference to the SPA designation, these changes would be likely to positively affect the protection of biodiversity and flora and fauna ( <b>SEOs B1 B2 B3</b> ) and would also contribute towards the protection of other environmental components including water and soil resources ( <b>SEOs W1 W2 S1</b> ) and human health ( <b>SEO PHH1</b> ).				

## 7.7.7 Chapter 7: Infrastructure

	Likely to <b>Improve</b> status of SEOs	Probable <b>Conflict</b> with status of SEOs - unlikely to be mitigated	Potential <b>Conflict</b> with status of SEOs- likely to be mitigated	<b>No Likely</b> interaction with status of SEOs
<b>Transport Provisions</b>				
<p>INF POL 15 To facilitate the development of the national and regional road network in line with the provisions of the 'National Development Plan' and 'Transport 21', in accordance with the policy of the Department of Transport and National Roads Authority. To establish a 30kph speed limit in the town centre area to reduce the risk and severity of accidents especially for vulnerable road users and to provide environmental benefits such as reduced noise levels.</p> <p>INF POL 17 To assist in the further construction of the Local Distributor Road Network and ensure its integration into the urban area of Navan.</p> <p>INF OBJ 1 To promote the development of a <b>Boulevard Public Transport Corridor along the R147 (former N3)</b> between the Fire Station and the 'Academy Square Development' off the Dublin Road following the downgrading of the N3 to regional road status.</p> <p>INF OBJ 2(a) To preserve and secure from further development a route for the future provision of <b>Local</b> Distributor Roads Corridors for the development of the following routes:</p> <p>. <b>ST-LDR 1</b> (Formerly RT 6 &amp; RT 7) Construction of a Local Distributor Road link between (a) the Trim Road (R161) to the existing section of Local Distributor Road at Limekiln off the R147 (Dublin Road), and (b) construction of a Link Road connecting the aforementioned section of the Local Distributor Road with the Kilcarn Interchange to the M3 Motorway, including traversing the Borallion,</p> <p>. <b>ST-LDR 2</b> (Formerly RT 5) Construction of the Local Distributor Road link between the Athboy Road N51 to the Trim Road R161 intersecting the Commons Lane and Commons Road, (a) the Trim Road (R161) to the Commons Road and (b) between the Commons Road and Athboy Road N51 intersecting the Commons Lane and the former Athboy Road (L1041)</p> <p>. <b>ST-LDR 3</b> Construction of the Local Distributor Road link between the Athboy Road (N51) and the Ratholdren Road including a new bridge over the <b>River</b> Blackwater,</p> <p>. <b>RT 1</b> Construction of the M3 Motorway providing for a by-pass of Navan and direct access to Navan via two Interchanges,</p> <p><b>RT-3 LDR 4</b> Construction of the Local Distributor Road link between the Rathaldron Road and the Kells Road (former N3), including a new bridge over the Blackwater River,</p> <p><b>RT-2 LDR 5</b> Completion of the Local Distributor Road link between the Slane Road (N51) and the Rathaldron Road,</p> <p>. <b>RT 4</b> Construction of the Local Distributor Road Link between the existing N3 Kells Road with the proposed M3 Motorway Interchange on the N51 Athboy Road,</p> <p>. <b>RT-8 LDR 6</b> Construction of the Local Distributor Road Link between the Boyne Road to the Kentstown Road R153 including the construction of a bridge over under the existing Navan – Drogheda Rail Line and traversing the Old Road, Athlumney,</p> <p>. <b>RT 9</b> Phase 2B of the Navan Inner Relief Road linking the former N3 Kells Road via Moathill with the N51 Athboy Road,</p> <p>. <b>LOR</b> The construction of the Leinster Orbital Route (LOR) providing for the development of a National Primary Route to facilitate growth in the primary and secondary development centres (as originally designated in the Strategic Planning</p>	<b>C1</b>		<b>B1 B2 B3 PHH1 S1 W1 W2 W3 M1 M2 M3 C1 CH1 CH2 L1</b>	

<p>Guidelines) and provide for a strategic by pass of Dublin.</p> <p>INF OBJ 2 (b) To facilitate the provision, in tandem with development, of the following sections of the Local Distributor Road Network whose corridor is protected from development pursuant to INF OBJ 2 (a).</p> <ul style="list-style-type: none"> <li>. i) LDR 1 (a)</li> <li>. ii) LDR 2 (a)</li> <li>. iii) LDR 3</li> <li>. iv) LDR 4</li> <li>. v) LDR 5</li> <li>. vi) LDR 6</li> </ul> <p>[Note that a supplementary development contribution scheme objective relating to LDR 1 (a) has been added as follows:</p> <p>DCS OBJ 3 To prepare a Supplementary Development Contribution Scheme pursuant to Section 49 of the Planning &amp; Development Act 2000-2013 towards the provision of Local Distributor Road LDR 1 (a). The Supplementary Development Contribution Scheme shall provide for the costs associated with the provision of the extent of Local Distributor Roadway connecting the R147 Dublin Road to the R161 Trim Road inclusive of land acquisition costs. The lands included within the Scheme area shall be the lands identified in Master Plan 8 and the residential lands identified to the south of MP 8 indicated as Residential Phase II.]</p> <p>INF OBJ 2 (c) In the assessment of development management proposals, the Councils shall have regard to the Navan Traffic Model (2012) and to the conclusions drawn therein regarding the capacity of the existing road network to accommodate additional traffic generation and the capacity constraints which are being experienced at key junctions particularly during the a.m. peak (8.30 – 9.30 a.m.). It shall be a requirement of any development management proposal to demonstrate to the relevant Planning Authority as part of the planning application that development can be accommodated within particular areas of Navan in advance of the further completion of the Outer Orbital Road Network (Local Distributor Road refer).</p> <ul style="list-style-type: none"> <li>. This may include the provision by the respective developer of alternative solutions such as traffic management or demand management measures which effectively and satisfactorily address the particular circumstances which prompt the necessity for the road proposal in advance of the proposed development. Such as assessment shall include, inter alia, the following <ul style="list-style-type: none"> <li>• demonstrate the impact the development will have on the network, using the existing traffic model;</li> <li>• demonstrate the considerations given to serve the demand arising from the proposed development from different areas providing for all modes of transport;</li> <li>• demonstrate the weakness in the road network that will be affected and ensure that any proposals do not compromise existing investment in walking, cycling and public transport;</li> <li>• review measures which would reduce the use of demand at peak times and measures that would encourage increased use of alternative modes (combination of mobility management plans and infrastructure), and;</li> <li>• demand management particularly in the form of parking.</li> </ul> </li> <li>. In effect, this will demonstrate that the proposed development will not give rise to a significant or unsustainable increase in the overall level of car trips in the particular area of Navan and that the proposed scheme is consistent with Smarter Travel objectives and targets.</li> </ul> <p>INF OBJ 2 (d) To co-operate with the NRA, NTA and other Local Authorities in clarifying and finalising the route of the Leinster Outer Orbital Route (linking Drogheda, Navan, Trim and Naas) proposed in the 'Regional Planning Guidelines for the Greater Dublin Area' and the NTA's draft Transport Strategy. This is particularly important in the vicinity of proposed major junctions along the route within Navan in order to protect the identified corridor from development intrusion.</p> <p><del>INF OBJ 8 Promote the redevelopment of the lands between the Trim Road, Carriage Road and the Dan Shaw Road as a major transportation node in County Meath, with a multi-modal interchange, catering for rail, bus (local and regional), car parking and bicycle facilities.</del></p> <ul style="list-style-type: none"> <li>. a) To continue to update and refine the Navan Traffic Model (2013) by carrying out additional traffic counts / junction analysis where required and appropriate and which may necessitate further junction and capacity improvements over the life of the Navan Development Plan;</li> <li>. b) To maximise the efficiency of the existing road network by re-examining and where necessary redesigning / remodelling existing junctions identified in the Navan Traffic Model as operating close to or beyond their designed ratio to flow capacity or which require to be reconfigured to cater for pedestrian / cycling facilities. This will include the</li> </ul>				
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<p>consideration of revising existing options at constrained junctions such as along the R147 through the town and the pedestrianisation of Trimgate Street;</p> <ul style="list-style-type: none"> <li>. c) Short Term Junction Improvements are proposed for</li> <li>. JI 1 N51/R147/Abbey Road signalised junction (opposite the Fire Station).</li> <li>. JI 2 R147/Timmons Hill/R153 signalised junction (Kentstown Road/Kells . Rd Junction)</li> <li>. JI 3 N51/Ratholdron Road signalised junction.</li> <li>. JI 4 R147 / Circular Road signalised junction.</li> <li>. JI 5 Canon Row/Trimgate Street/Railway Street/Brews Hill signalised junction.</li> <li>. JI 6 Railway Street/Circular Road roundabout.</li> <li>. JI 7 Commons Road/Dan Shaw Road signalised junction.</li> <li>. JI 8 N51/R162/ Flower Hill roundabout (Round 'O' roundabout)</li> <li>. JI 9 R147/Sion Road/Springfield Glen signalised junction.</li> <li>. JI 10 R162 junction with Clonmagadden Road</li> <li>. d) To review and extend the integrated signalisation optimisation programme of existing junctions on the outer distributor road network.</li> </ul> <p>INF OBJ 10 To prepare and implement the recommendations of a Traffic Management and Circulation Study of Navan following the completion of the M3 and the downgrading of the N3 to regional road status. The Traffic Management and Circulation Study shall include, inter alia, a review of the existing one way system, on street and off street car parking, loading / unloading, location and extent of taxi ranks, etc. The Traffic Management Plan shall be developed around the altered bus network and location of the proposed bus interchange / hub pursuant to INF OBJ 25;</p> <p>INF OBJ 14 To prepare an integrated pedestrian and cycle path network for Navan as provided for in the Local Transport Plan, inclusive of additional bridging points over the Boyne &amp; Blackwater Rivers, and to implement the emerging network, subject to the availability of finances, resources and physical constraints.</p> <p>INF POL 26 To promote the routing of all local new bus services so that they serve the town centre and location of bus interchange / hub when identified and developed in the interim and longer term, the proposed transportation hub at the train and bus stations and also proposed Park and Ride facilities, where practicable.</p> <p>INF OBJ 22 To facilitate the provision of a heavy rail link between Navan and Dublin City</p> <ul style="list-style-type: none"> <li>. a) To protect and safeguard the detailed designed alignment of Phase II of the Navan rail route and surrounding lands (including identified station locations), as illustrated on Map No. 2, free from development and any encroachment by inappropriate uses which could compromise its future development as a rail facility. Land Use Zoning Objective R1 Rail Corridor also refers.</li> <li>. b) To promote, facilitate and advance the development of Phase II of the Navan railway line project and rail services in co-operation with other relevant agencies.</li> </ul> <p>INF OBJ 23 To promote the redevelopment of the lands between the Trim Road, Carriage Road and the Dan Shaw Road as a major transportation node in County Meath, with a multi modal interchange, catering for rail, local bus (local and regional), car set down parking taxi rank, bicycle facilities and pedestrian access and bicycle facilities.</p> <p>INF OBJ 25 To promote and secure, in conjunction with Bus Éireann, the development of a central Bus Station within the lifetime of this Development Plan at the optimum location of the Central Bus and Rail Station. To agree a location, in conjunction with Bus Éireann and the NTA, for a bus hub / interchange in Navan Town Centre, and</p> <p>INF OBJ 26 The reservation free from development of the disused priority measures on major routes to the town centre (medium to long term objective). To secure, in conjunction with Bus Éireann and the NTA, the development of a bus hub / interchange in Navan Town Centre.</p> <p>INF OBJ 27 To explore, with Iarnród Éireann, the sharing of the existing Railway Viaduct over the River Boyne to accommodate local bus, pedestrians and cyclists as part of the public transport integrated network. To explore the provision of bus lanes and bus priority measures on major routes to the town centre.</p> <p>INF OBJ 28 To reserve the old Navan – Dublin Rail line free from development given it is a proposed alignment for the Phase 2 of the Navan railway line. To implement, in conjunction with the National Transport Authority and NRA (where relevant), feasible bus priority measures from designated routes to the identified location for the bus interchange / hub in Navan town centre as determined pursuant to INF OBJ 25 above;</p> <p>INF OBJ 29 To explore the provision of bus lanes and bus priority measures on major routes to the town centre.</p> <p>. To encourage all major employers in Navan Town and Environs to prepare and implement Mobility Management Plans</p>				
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<p>for their employees</p> <p>INF OBJ 30 <del>To encourage all major employers in Navan Town and Environs to prepare and implement Mobility Management Plans for their employees.</del></p> <p>. To require Mobility Management Plans and Traffic Assessments for proposed significant trip intensive developments.</p> <p>INF POL 24 To promote and secure, in conjunction with Bus Éireann and the National Transport Authority, the development of a Central Bus Station / Interchange Hub within the lifetime of this Development Plan at the optimum location of the Central Bus &amp; Rail Station in the Carriage Road Area; The development of any proposed town centre transport and urban realm improvements such as the pedestrianisation of Trimgate Street and any proposed public transport corridor in Navan will be linked to the finalisation of proposals for the proposed location of the public transport interchange in Navan and related traffic management arrangements.</p> <p>INF POL 33 <del>To co-operate with relevant transport bodies and authorities and to support and encourage the provision of additional safe and suitable locations for bus and taxi services.</del></p> <p>. To facilitate the development of properly designated taxi ranks and an accessible taxi and hackney service in Navan and in particular adjacent to the proposed bus based transport hub.</p>				
<p><b>Commentary:</b></p> <p>These provisions provide for, inter alia, the integration of the Local Transport Plan into the Plan. Although efforts to improve sustainable mobility are both improved (C1) and conflicted with (C2), in general the provisions would be likely to further contribute towards sustainable mobility levels.</p> <p>Arising both directly from the development and operation of infrastructure and indirectly from facilitating non-transport development these transport related would potentially conflict with:</p> <ul style="list-style-type: none"> <li>protecting biodiversity and flora and fauna, especially with regard to proposals for crossing or adjacent to the rivers (SEOs B1 B2 B3)</li> <li>protecting human health (SEO PHH1)</li> <li>protecting soil function and the status of water bodies (SEOs S1 W1 W2)</li> <li>minimising increases in flood risk (SEO W3)</li> <li>maximising sustainable mobility (SEO C1)</li> <li>minimising impacts upon archaeological and architectural heritage, including context (SEOs CH1 CH2);</li> <li>minimising visual impacts (SEO L1)</li> <li>the provision of adequate and appropriate water services (SEO M1 M2)</li> <li>minimising waste levels (SEO M3)</li> </ul> <p>These conflicts would be likely to be mitigated by the measures which have been integrated into the Variation or existing Plan, including those which have emerged from this SEA process.</p>				
<b>Water and Water Services</b>				
<p>INF POL 36 To continue the development and upgrading of the water supply system so as to ensure that an adequate, sustainable and economic supply of piped water of suitable quality is available for domestic, commercial, industrial, fire safety and other uses for the sustainable development of the town in accordance with the settlement structure identified in this Plan and as finances permit. All proposals for the development of an upgrade of the water supply will be screened for Appropriate Assessment in accordance with Article 6(3) of the Habitats Directive and, where significant impacts are identified, a Natura Impact Statement will be prepared.</p> <p>INF POL 36A The Councils in conjunction with Irish Water shall consult the EPA publication (2012) "The Provision and Quality of Drinking Water in Ireland - A Report for the Year 2011" (and any subsequent update) in the establishment and maintenance of water sources in the County.</p> <p>INF POL 43A Implement water protection measures to restore substandard waters to 'good status', subject to available resources.</p> <p>INF POL 43B Support, as appropriate, the relevant agencies and statutory bodies in the control and elimination of invasive species in water bodies.</p> <p>INF OBJ 41 To assist Irish Water in implementing the in effect Water Services Investment Programme 2007-2009. All developments included in the Water Services Investment Programme will be subject to Appropriate Assessment in accordance with Articles 6(3) and 6(4) of the Habitats Directive, where this has not previously been carried out. Where significant impacts are identified, a Natura Impact Statement will be prepared.</p> <p>INF OBJ 46 45 To prepare plans for increasing the capacity of the Navan Waste Water Treatment Plant to cater for the growth in demand from the residential, commercial and industrial sectors over the lifetime of the plan in conjunction</p>	<p>B1 B2 B3 B4 PHH1 S1 W1 W2 W3 M1 M2</p>		<p>B1 B2 B3 PHH1 S1 W1 W2 W3 M2 M3 CH1 CH2 L1</p>	<p>C1</p>

<p>with Irish Water. All proposals for the development of an upgrade of the Navan Waste Water Treatment Plant will be subject to Appropriate Assessment in accordance with Articles 6(3) and 6(4) of the Habitats Directive and, where significant impacts are identified, a Natura Impact Statement will be prepared.</p> <p>INF OBJ 45A Development shall only be permitted once adequate and appropriate waste water infrastructure is provided. Such infrastructure shall fully comply 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) and shall be operational and with adequate capacity to accommodate waste water arising from development, prior to developments being occupied. Discharges arising from this collection and treatment shall also comply with the requirements of the Directive.</p> <p>INF OBJ 46 The Councils in conjunction with Irish Water shall implement the relevant recommendations set out in the EPA publication (and any subsequent update) Focus on Urban Waste Water Discharges in Ireland (EPA Office of Environment Enforcement, 2012).</p> <p>INF OBJ 46A The Councils in conjunction with Irish Water shall undertake recommendations made by the EPA arising from failure to meet drinking water standards and enlistment on the EPA's Remedial Action List.</p> <p>INF POL 47 (a) To require that all individual dwellings connect to the public wastewater treatment system where possible and where capacity is available in lieu of utilising septic tanks or waste water treatment systems. (b) To support the connection of dwellings between Gainstown Cross and Ros na Rí and on Proudstown Hill into the public sewerage system.</p>				
<p><b>Commentary:</b> These provisions would beneficially affect the protection of water resources, human health, ecology and soil (<b>SEOs W1 W2 PHH1 B1 B2 B3 S1 M2</b>).</p> <p>The provision of waste water infrastructure (<b>SEO M1</b>) would also benefit the aforementioned environmental components as well as providing outflow that would potentially conflict with various components (<b>SEOs W1 W2 PHH1 B1 B2 B3 S1 M2</b>). With regard to the provision of drinking water (<b>SEO M2</b>), water abstraction would potentially conflict with various components (<b>SEOs W1 W2 PHH1 B1 B2 B3 S1</b>).</p> <p>Construction works arising from the provision of waste and drinking water infrastructure would potentially impact upon various environmental components including cultural heritage (<b>SEO CH1 CH2</b>) and landscape (<b>SEO L1</b>). Flood risk issues (<b>SEO W3</b>) would have to be addressed. Potential conflicts would be mitigated by measures contained in the Variation or the existing Plan (see Section 8 of this report) while some would be mitigated by measures arising out of separate consent procedures.</p>				
<b>Climate Adaptation</b>				
<p>INF POL 57 The Councils recognise European and national objectives for climate adaptation and will work with the EPA, Regional Authorities and neighbouring planning authorities in implementing future Guidance for climate change proofing of land use plan provisions as is flagged in the National Climate Change Adaptation Framework (DECLG, 2012).</p>	<p><b>B1 B2 B3 PHH1 S1 W1 W2 W3 M1 M2 M3 C1</b></p>		<p><b>B1 B2 B3 PHH1 S1 W1 W2 W3 M1 M2 M3 C1 CH1 CH2 L1</b></p>	
<p><b>Commentary:</b> This policy would be likely to</p> <ul style="list-style-type: none"> <li>Contribute towards increases in sustainable mobility and reductions in greenhouse gas emissions (<b>SEO C1</b>);</li> <li>Minimise increases in flood risk (<b>SEO W3</b>) and protect human health (<b>SEO HH1</b>);</li> <li>Contribute towards the provision of various services and the sustainable management of water (<b>SEO M1 M2 M3</b>); and</li> <li>Protect and manage biodiversity and water and soil quality (<b>SEOs B1 B2 B3 S1 W1 W2</b>).</li> </ul> <p>Certain actions taken in relation to climate adaptation would have the potential to impact upon all environmental components however these conflicts would be likely to be mitigated by the measures which have been integrated into the Variation or existing Plan, including those which have emerged from this SEA process.</p>				
<b>Flood Risk Management Related Policies</b>				
<p>INF POL 49 To integrate as relevant the "Planning System and Flood Risk Management – Guidelines for Planning Authorities" (DoEHLG/OPW, 2009) assessment of development management proposals and in the preparation of any Framework Plans or Master Plans required during the period of this Plan to include the use of the sequential approach and application of the Justification Tests.</p> <p>INF POL 50 To continue to implement the findings and recommendations of the current Strategic Flood Risk Assessment prepared as part of the Navan Development Plan Variation No. 1 review. (See Appendix IV).</p> <p>INF POL 51 To ensure that a flood risk assessment is carried out for all development proposals in accordance with the Navan Strategic Flood Risk Assessment recommendations and the "Planning System and Flood Risk Management –</p>	<p><b>B1 B2 B3 B4 PHH1 S1 W1 W2 W3 M1 M2 M3</b></p>			<p><b>C1 CH1 CH2 L1</b></p>

<p>Guidelines for Planning Authorities" (DoECLG/OPW, 2009). This assessment shall be appropriate to the scale and nature of risk to the potential development.</p> <p>INF POL 52 Any future planning application lodged with respect to any site having the benefit of an extent planning permission or seeking an extension of duration pursuant to Section 42 of the Planning &amp; Development Acts 2000 – 2013 but which is identified on the land use zoning objectives map as having an interface with flood risk zones A / B shall be accompanied by an appropriately detailed Flood Risk Assessment. The Flood Risk Assessment shall clearly assess flood risks, management measures and demonstrate compliance with the "The Planning System and Flood Risk Management Guidelines for Planning Authorities" (November 2009). The Flood Risk Assessment shall consider the Sequential Approach within the subject site and would typically involve allocating water compatible development within Flood Zones A and Zone B. Buildings should be sited at an appropriate finished floor level, which should be above the 1 in 100 year flood level, with an allowance for freeboard and climate change.</p> <p>INF POL 53 To consult with the Office of Public Works in relation to proposed developments in the vicinity of drainage channels and rivers for which the OPW are responsible, and the Council will retain a strip of 10 metres on either side of such channel where required, to facilitate access thereto.</p> <p>INF POL 54 To consult, where necessary, with Inland Fisheries Ireland, the National Parks and Wildlife Service and other relevant agencies in the construction of flood alleviation measures in Navan.</p> <p>INF POL 55 To have regard to the recommendations of the Eastern Catchment Flood Risk Assessment and Management Study when finalised and approved in conjunction with the Navan Development Plan.</p> <p>INF OBJ 47 In areas where there is a high probability of flooding – Zone A refers – it is an objective of this plan to avoid development other than 'water compatible development' as described in Section 3 of the 'The Planning System and Flood Risk Management – Guidelines for Planning Authorities' issued in November 2009 by the DoEHLG.</p> <p>INF OBJ 48 In areas where there is a moderate probability of flooding – 'Zone B and Residual Risk Scenarios refers – it is an objective of this plan to avoid 'highly vulnerable development' described in Section 3 of 'The Planning System and Flood Risk Management – Guidelines for Planning Authorities' issued in November 2009 by the DoEHLG.</p> <p>INF OBJ 49 To undertake a review of the 'Strategic Flood Risk Assessment for Navan' following the publication of the flood mapping which is being produced as part of the Catchment Flood Risk Assessment and Management (CFRAM) Studies.</p> <p>INF OBJ 50 To design flood relief measures to ensure appropriate protection for alluvial woodland (i.e. a qualifying interest) along the Boyne.</p> <p>INF OBJ 51 To design flood relief measures to protect the conservation objectives of Natura 2000 sites and to avoid indirect impacts of conflict with other qualifying interests or Natura 2000 sites.</p> <p>INF OBJ 52 To promote positive flood relief measures that can enhance habitats in the Boyne floodplain such as swales, constructed wetland basins etc.</p> <p>INF OBJ 53 To seek to ensure that construction works are designed so as not to result in surface water runoff into cSAC or SPAs either directly or indirectly via a watercourse.</p> <p>INF OBJ 54 In determining the detailed design and final alignment of the Local Distributor Roads (LDR 3 and 4 refer), a Justification Test shall be applied if alignments being assessed interact with Flood Zone A and / or B. A detailed Flood Risk Assessment will be required to manage the risk and to demonstrate there will be no impact on adjacent lands. The detailed design of this route shall also be subject to as Appropriate Assessment pursuant to the Habitats Directive.</p> <p>INF OBJ 55 The preparation of a layout for all lands identified as requiring the preparation of a Framework Plan or Master Plan shall also be cognisant of the flood risk mapping produced to inform the land use zoning objectives map of the Navan Development Plan as varied. A Flood Risk Assessment shall be prepared to accompany any planning application lodged with respect to lands contained within FP 1, FP2, FP 3, MP3 and MP 8, and any planning application shall have regard to and be consistent with the recommendations of said Flood Risk Assessment.</p> <p>INF OBJ 57 To have regard to the following in considering proposals for the development of telecommunications masts, antennae and ancillary equipment:</p> <ol style="list-style-type: none"> <li>The visual impact of the proposed equipment on the natural, architectural and historic environment.</li> <li>The removal or modification of features of architectural importance.</li> <li>The impact any such development may have on protected structures or their setting.</li> <li>The potential for co-location of equipment on existing masts.</li> <li>The Department of the Environment "Telecommunications Antennae and Support Structures, Guidelines for Planning</li> </ol>				
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<p>Authorities" (July 1996) and the provisions of Circular Letter PL 07/12 and to such other publications and materials as may be relevant in the consideration of planning applications for such structures.</p> <p>INF POL 58 Where practicable, and particularly in areas of new development, floor levels shall be a minimum of 300mm above adjacent roads and hard standing areas to reduce the consequences of any localised flooding.</p> <p>INF POL 59 To ensure that adequate measures are put in place to deal with residual risks, proposals shall demonstrate the use of flood-resistant construction measures that are aimed at preventing water from entering a building and that mitigate the damage floodwater causes to buildings. Alternatively, designs for flood resilient construction may be adopted where it can be demonstrated that entry of floodwater into buildings is preferable to limit damage caused by floodwater and allow relatively quick recovery.</p> <p>INF POL 60 To have regard to the recommendations of the Eastern Catchment Flood Risk Assessment and Management Study when finalised and approved.</p> <p>INF POL 61 To protect water courses, banks and bankside vegetation from interference by inappropriate bridging, draining, culverting or other works which would be detrimental to fisheries, biodiversity and the qualifying interests of Natura 2000 sites.</p> <p>INF POL 64 To ensure that all developments have regard to the surface water management policies in the Greater Dublin Strategic Drainage Study (GDSDS). Compliance with the recommendations contained in Technical Guidance Document, Volume 2, Chapter 4 of the Greater Dublin Strategic Drainage Study shall be required in all instances.</p>				
<p><b>Commentary:</b> These Policies and Objectives would be likely to minimise increases in flood risk and by doing this would be likely to contribute towards the:</p> <ul style="list-style-type: none"> <li>• Protection of human health (<b>SEO HH1</b>);</li> <li>• The provision of various services and the sustainable management of water (<b>SEO M1 M2 M3</b>);</li> <li>• Protection and management of biodiversity and water quality (<b>SEOs B1 B2 B3 W1 W2</b>);</li> <li>• Protection of cultural heritage and landscape sensitivities; and</li> <li>• The sustenance of rural populations (<b>SEO B4</b>).</li> </ul>				



## **Section 8 Mitigation Measures**

### **8.1 Introduction**

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

Various environmental sensitivities and issues have been communicated to the Council through the SEA, AA and SFRA processes. By integrating related recommendations into the Plan as varied, the Council have ensured that both the beneficial environmental effects of implementing the Plan as varied have been and will be maximised and that potential adverse effects have been and will be avoided, reduced or offset.

### **8.2 Integration of Environmental Considerations**

All recommendations made by the SEA, AA and SFRA processes were integrated into the Variation.

Table 8.1 links key mitigation measure(s) - which have been integrated into the Variation - to the potential significant effects of implementing the Variation, if unmitigated.

The measures generally benefit multiple environmental components i.e. a measure providing for the protection of biodiversity, flora and fauna could beneficially impact upon the minimisation of flood risk and the protection of human health, for example.

**Table 8.1 Integration of Environmental Considerations**Text inserted as a result of the SEA, AA and SFRA processes is **green**; deleted text is provided as ~~red-strikethrough~~.

Likely Significant Effect, if unmitigated	Mitigation Measures from the Plan as proposed to be varied, including:
<p>Loss of biodiversity with regard to Natura 2000 Sites and Annexed habitats and species &amp; Loss of biodiversity with regard to designated sites including Wildlife Sites and species listed on Schedule 5 of the Wildlife Act 1976</p>	<p>HER POL 11: To protect, conserve and enhance the biodiversity and natural heritage of Navan including wildlife (flora &amp; fauna), and particularly all Annex II species, habitats, geology, landscapes and/or landscape features of importance to wildlife or which play a key role in the conservation and management of natural resources such as rivers, streams, canals, lakes, and associated wetlands including reed-beds and swamps, ponds, springs, bogs, fens, trees, woodlands and scrub, hedgerows and other boundary types such as stone walls and ditches which occur outside of designated areas providing a network of habitats and corridors essential for wildlife to flourish.</p> <p>HER OBJ 8: <b>Subject to the provisions of the Habitats and Birds Directives, to promote the sustainable usage of the River Boyne for amenity/recreational and educational purposes</b><del>use including the creation of an urban habitat.</del></p> <p>HER POL 16: To <del>maintain</del>, protect <del>and where possible enhance</del>, the <del>conservation value of the River Boyne and River Blackwater</del> cSAC <b>and SPA</b> in Navan and any additional sites that may be proposed for designation during the lifetime of this Plan and to ensure that development within the Navan Development Plan boundary will not give rise to negative impacts on the River Boyne and River Blackwater cSAC <b>and SPA</b> outside of the Plan area.</p> <p>HER POL 17: To have regard to the views and guidance of the National Parks and Wildlife Service of the <del>DoEHLG</del> <b>Department of Arts, Heritage and the Gaeltacht</b> in respect of proposed development where there is a possibility that such development may have an impact on the River Boyne and River Blackwater candidate Special Area of Conservation or <b>Special Protection Area</b>.</p> <p>HER POL 18: <del>HER POL 18: To require any planning application that proposes development within or adjacent to the area designated as a cSAC to be accompanied by an ecological impact assessment carried out by appropriate professionals. The Ecological Impact Assessment will be forwarded to the National Parks &amp; Wildlife Service of the Department of the Environment, Heritage &amp; Local Government for their comments prior to the making of a decision by the appropriate planning authority.</del> <b>It is the policy of the Council to protect sites designated in National and European legislation, and in other relevant International Conventions, Agreements and Processes. This includes sites proposed to be designated or designated as:</b></p> <ul style="list-style-type: none"> <li>• <b>Special Areas of Conservation under the Habitats Directive<sup>1</sup> (Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora)</b></li> <li>• <b>Special Protection Areas under the Birds Directive (Council Directive 79/409/EEC on the conservation of wild birds)</b></li> </ul> <p><b>Both the Birds and Habitats Directives have been transposed in Irish law by Ministerial Regulation. The European Communities (Birds and Natural Habitats) Regulations 2011 are the most important of these because they provide for the protection measures and management regime that apply to SPAs and SACs.</b></p> <p><b>No projects giving rise to significant cumulative, 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 (Except as provided for in Section 6(4) of the Habitats Directive, viz. there must be:</b></p> <ol style="list-style-type: none"> <li>a. <b>no alternative solution available,</b></li> <li>b. <b>imperative reasons of overriding public interest for the plan to proceed; and</b></li> <li>c. <b>adequate compensatory measures in place.)</b> <ul style="list-style-type: none"> <li>• <b>Natural Heritage Areas (NHAs), Nature Reserves, and Refuges for Flora or Fauna under the Wildlife Act, 1976 as amended by Wildlife (Amendment) Act, 2000</b></li> </ul> </li> </ol> <p>HER POL 19: To prohibit any development that would be harmful or that would result in a significant deterioration of habitats and/or disturbance of species.</p> <p>HER POL 20: To ensure that development does not have a significant adverse impact, incapable of satisfactory mitigation, on plant, animal or bird species protected by law.</p> <p><b>HER POL 21: No projects giving rise to significant cumulative, 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)<sup>35</sup>.</b></p>

<sup>35</sup> 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.

	<b>HER POL 21A: To ensure compliance with the Wildlife Acts 1976-2010 with regard to the protection of species listed on Schedule 5 of the principal act.</b>
Loss of biodiversity with regard to ecological connectivity, stepping stones and non-designated biodiversity	<p>HER POL 14: To protect rivers and stream corridors and valleys by reserving land along their banks for ecological corridors and maintain them free from inappropriate development, and discourage culverting or realignment, unless done for environmental reasons, including flood prevention or flood abatement. The Planning Authority shall consult with <del>the Regional Fisheries Board</del> <b>Inland Fisheries Ireland</b> and other statutory bodies as required by the planning regulations in respect of this and shall have regard to their comments in the making of any planning decision.</p> <p>HER POL 22: To ensure that, where possible, proposals for development protect and enhance biodiversity by minimising adverse impacts on existing habitats, (whether designated or not,) and by including mitigation and/or compensation measures.</p> <p>HER POL 23: To establish ecological corridors within new development which permit the potential movement of wildlife and which include indigenous vegetation and which will link with existing biodiversity features and ecological networks.</p> <p>HER POL 30: To retain trees and hedgerows of value as illustrated on the relevant map forming part of this development plan.</p> <p>HER POL 31: To have a presumption in favour of the retention of existing trees and their incorporation into any new development unless this can be shown to be impractical, and to protect, preserve and ensure effective management of trees and groups of trees considered to be of special amenity value and to prepare Tree Preservation Orders where considered appropriate.</p> <p><b>INF POL 56: Where relevant, the Councils shall adopt appropriate buffer zones to protect features of European, national, regional, county and local importance, including rivers and streams, from development proposals both in terms of visual and ecological impacts.</b></p> <p><b>HER POL 21B: To encourage and facilitate the development of green infrastructure that recognises the synergies that can be achieved with regard to the following:</b></p> <ul style="list-style-type: none"> <li>• Provision of open space amenities</li> <li>• Sustainable management of water</li> <li>• Protection and management of biodiversity</li> <li>• Protection of cultural heritage</li> <li>• Protection of protected landscape sensitivities.</li> </ul>
Spatially concentrated deterioration in human health	<p><b>Land Use Zoning OBJ 1: Any application for planning permission for new development, extension to existing development or intensification or change of use shall be assessed in terms of its potential impact on existing adjacent developments, existing land uses and/or the surrounding landscape. Where such development would have a significant adverse effect on the amenities of the area through pollution by noise, fumes, dust, grit or vibration, or cause pollution of air, water and/or soil, planning permission will not be forthcoming, prior to the proposal and introduction of mitigation measures agreed with the planning authority to eliminate negative environmental impacts or reduce them to an acceptable operating level.</b></p> <p>Also see relevant measures under Air and Climatic Factors, Water, Material Assets and Soil.</p>
Damage to the hydrogeological and ecological function of the soil resource	See relevant measures under Biodiversity and Flora and Fauna and Water.
Adverse impacts upon the status and quality of water bodies	<p>INF POL 43 To maintain, improve and enhance the <del>environmental and ecological quality of status of</del> waters by implementing the measures set out in the <b>Eastern</b> River Basin Management Plans and associated Programmes of Measures <del>that will emerge from the Eastern River Basin Districts Projects</del> in co-operation with all organisations and major stakeholders for the protection of <del>drinking</del>, ground and surface waters as part of the implementation of the EU Water Framework Directive.</p> <p>INF POL 44 To protect surface water and groundwater resources and their associated habitats and species including fisheries and in particular Annex II listed species.</p> <p>INF POL 41 To protect groundwater resources having regard to the County Meath Groundwater Protection <del>Scheme Plan</del>.</p> <p>INF POL 42 To develop groundwater protection schemes <b>in conjunction with Irish Water</b> in line with the recommendations contained within the DoEHLG / GSI / EPA publication 'Groundwater Protection Schemes, 1999' or any revised or replacement publication.</p> <p><b>INF POL 43A Implement water protection measures to restore substandard waters to 'good status', subject to available resources.</b></p> <p><b>INF POL 43B Support, as appropriate, the relevant agencies and statutory bodies in the control and elimination of invasive species in water bodies.</b></p>
Increase in the risk of flooding	<p><b>INF POL 49 To integrate as relevant the "Planning System and Flood Risk Management – Guidelines for Planning Authorities" (DoEHLG/OPW, 2009) assessment of development management proposals and in the preparation of any Framework Plans or Master Plans required during the period of this Plan to include the use of the sequential approach and application of the Justification Tests.</b></p> <p><b>INF POL 50 To continue to implement the findings and recommendations of the current Strategic Flood Risk Assessment prepared as part of the Navan Development Plan Variation</b></p>

No. 1 review. (See Appendix IV).

INF POL 51 To ensure that a flood risk assessment is carried out for all development proposals in accordance with the Navan Strategic Flood Risk Assessment recommendations and the "Planning System and Flood Risk Management – Guidelines for Planning Authorities" (DoECLG/OPW, 2009). This assessment shall be appropriate to the scale and nature of risk to the potential development.

INF POL 52 Any future planning application lodged with respect to any site having the benefit of an extent planning permission or seeking an extension of duration pursuant to Section 42 of the Planning & Development Acts 2000 – 2013 but which is identified on the land use zoning objectives map as having an interface with flood risk zones A / B shall be accompanied by an appropriately detailed Flood Risk Assessment. The Flood Risk Assessment shall clearly assess flood risks, management measures and demonstrate compliance with the "*The Planning System and Flood Risk Management Guidelines for Planning Authorities*" (November 2009). The Flood Risk Assessment shall consider the Sequential Approach within the subject site and would typically involve allocating water compatible development within Flood Zones A and Zone B. Buildings should be sited at an appropriate finished floor level, which should be above the 1 in 100 year flood level, with an allowance for freeboard and climate change.

INF POL 53 To consult with the Office of Public Works in relation to proposed developments in the vicinity of drainage channels and rivers for which the OPW are responsible, and the Council will retain a strip of 10 metres on either side of such channel where required, to facilitate access thereto.

INF POL 54 To consult, where necessary, with Inland Fisheries Ireland, the National Parks and Wildlife Service and other relevant agencies in the construction of flood alleviation measures in Navan.

INF POL 55 To have regard to the recommendations of the Eastern Catchment Flood Risk Assessment and Management Study when finalised and approved in conjunction with the Navan Development Plan.

INF OBJ 47 In areas where there is a high probability of flooding – Zone A refers – it is an objective of this plan to avoid development other than 'water compatible development' as described in Section 3 of the 'The Planning System and Flood Risk Management – Guidelines for Planning Authorities' issued in November 2009 by the DoEHLG.

INF OBJ 48 In areas where there is a moderate probability of flooding – 'Zone B and Residual Risk Scenarios' refers – it is an objective of this plan to avoid 'highly vulnerable development' described in Section 3 of 'The Planning System and Flood Risk Management – Guidelines for Planning Authorities' issued in November 2009 by the DoEHLG.

INF OBJ 49 To undertake a review of the 'Strategic Flood Risk Assessment for Navan' following the publication of the flood mapping which is being produced as part of the Catchment Flood Risk Assessment and Management (CFRAM) Studies.

INF OBJ 50 To design flood relief measures to ensure appropriate protection for alluvial woodland (i.e. a qualifying interest) along the Boyne.

INF OBJ 51 To design flood relief measures to protect the conservation objectives of Natura 2000 sites and to avoid indirect impacts of conflict with other qualifying interests or Natura 2000 sites.

INF OBJ 52 To promote positive flood relief measures that can enhance habitats in the Boyne floodplain such as swales, constructed wetland basins etc.

INF OBJ 53 To seek to ensure that construction works are designed so as not to result in surface water runoff into cSAC or SPAs either directly or indirectly via a watercourse.

INF OBJ 54 In determining the detailed design and final alignment of the Local Distributor Roads (LDR 3 and 4 refer), a Justification Test shall be applied if alignments being assessed interact with Flood Zone A and / or B. A detailed Flood Risk Assessment will be required to manage the risk and to demonstrate there will be no impact on adjacent lands. The detailed design of this route shall also be subject to as Appropriate Assessment pursuant to the Habitats Directive.

INF OBJ 55 The preparation of a layout for all lands identified as requiring the preparation of a Framework Plan or Master Plan shall also be cognisant of the flood risk mapping produced to inform the land use zoning objectives map of the Navan Development Plan as varied. A Flood Risk Assessment shall be prepared to accompany any planning application lodged with respect to lands contained within FP 1, FP2, FP 3, MP3 and MP 8, and any planning application shall have regard to and be consistent with the recommendations of said Flood Risk Assessment.

INF POL 58 Where practicable, and particularly in areas of new development, floor levels shall be a minimum of 300mm above adjacent roads and hard standing areas to reduce the consequences of any localised flooding.

INF POL 59 To ensure that adequate measures are put in place to deal with residual risks, proposals shall demonstrate the use of flood-resistant construction measures that are aimed at preventing water from entering a building and that mitigate the damage floodwater causes to buildings. Alternatively, designs for flood resilient construction may be adopted



	<p>where it can be demonstrated that entry of floodwater into buildings is preferable to limit damage caused by floodwater and allow relatively quick recovery.</p> <p>INF POL 60 To have regard to the recommendations of the Eastern Catchment Flood Risk Assessment and Management Study when finalised and approved.</p> <p>INF POL 61 To protect water courses, banks and bankside vegetation from interference by inappropriate bridging, draining, culverting or other works which would be detrimental to fisheries, biodiversity and the qualifying interests of Natura 2000 sites.</p> <p>INF POL 62 To ensure that all new developments have satisfactory drainage systems in the interest of public health and to avoid the pollution of ground and surface waters.</p> <p>INF POL 63 To require all new large scale developments to provide 'Sustainable Urban Drainage Systems' (SuDS) as part of their development proposals.</p> <p>INF POL 64 To ensure that all developments have regard to the surface water management policies in the Greater Dublin Strategic Drainage Study (GSDSDS). Compliance with the recommendations contained in Technical Guidance Document, Volume 2, Chapter 4 of the Greater Dublin Strategic Drainage Study shall be required in all instances.</p>
Failure to provide adequate and appropriate waste water treatment	<p>INF OBJ 41 To <b>assist Irish Water</b> in implementing the <b>in effect</b> Water Services Investment Programme—<del>2007-2009</del>. All developments included in the Water Services Investment Programme will be subject to <b>Appropriate Assessment</b> in accordance with Articles 6(3) and 6(4) of the Habitats Directive, where this has not previously been carried out. <b>Where significant impacts are identified, a Natura Impact Statement will be prepared.</b></p> <p>INF POL 46 To ensure that septic tanks and proprietary treatment systems, or other waste water treatment and storage systems, and associated percolation areas where required as part of a development, comply with the recommendations of the Environmental Protection Agency and that they are employed only where site conditions are appropriate.</p> <p>INF POL 47 (a) To require that all individual dwellings connect to the public wastewater treatment system where possible and where capacity is available in lieu of utilising septic tanks or waste water treatment systems. (b) To support the connection of dwellings between Gainstown Cross and Ros na Rí and on Proudstown Hill into the public sewerage system.</p> <p>INF POL 48 To continue the development and upgrading of the waste water system serving Navan <b>in conjunction with Irish Water</b> to ensure that an adequate treatment capacity is available for the sustainable development of Navan as finances permit.</p> <p>INF OBJ 45 To prepare plans for increasing the capacity of the Navan Waste Water Treatment Plant to cater for the growth in demand from the residential, commercial and industrial sectors over the lifetime of the plan <b>in conjunction with Irish Water</b>. All proposals for the development of an upgrade of the Navan Waste Water Treatment Plant will be subject to <b>Appropriate Assessment</b> in accordance with Articles 6(3) and 6(4) of the Habitats Directive and, where significant impacts are identified, a Natura Impact Statement will be prepared.</p> <p>INF OBJ 46: The Councils shall implement the relevant recommendations set out in the EPA publication (and any subsequent update) Focus on Urban Waste Water Discharges in Ireland (EPA Office of Environment Enforcement, 2012).</p> <p>INF OBJ 45A: Development shall only be permitted once adequate and appropriate waste water infrastructure is provided. Such infrastructure shall fully comply 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) and shall be operational and with adequate capacity to accommodate waste water arising from development, prior to developments being occupied. Discharges arising from this collection and treatment shall also comply with the requirements of the Directive.</p>
Failure to comply with drinking water regulations and serve new development with adequate drinking water that is both wholesome and clean	<p>INF POL 36 To continue the development and upgrading of the water supply system so as to ensure that an adequate, sustainable and economic supply of piped water of suitable quality is available for domestic, commercial, industrial, fire safety and other uses for the sustainable development of the town in accordance with the settlement structure identified in this Plan and as finances permit. <b>All proposals for the development of an upgrade of the water supply will be screened for Appropriate Assessment in accordance with Article 6(3) of the Habitats Directive and, where significant impacts are identified, a Natura Impact Statement will be prepared.</b></p> <p>INF POL 37 To promote public awareness and involvement in water conservation measures by households, businesses and industries.</p> <p>INF POL 38 To implement the Water Conservation Programme <b>in conjunction with Irish Water</b>, in order to conserve valuable resources by reducing wastage.</p> <p>INF POL 39 To utilise the existing water supply in an efficient and fair manner and in the best interests of the proper planning and sustainable development of the area.</p> <p>INF POL 40 To ensure that all drinking water complies with the European Union Drinking Water Directive 98/83/EC and Directive 2000/60/EC as given effect in Irish law by the European Communities (Drinking Water) (No. 2) Regulations 2007, as may be amended.</p> <p>INF POL 45 To require the submission of a Water Conservation and Management Plan for all major new developments in accordance with Meath County Council Water Bye-Laws 2007 Part 3 Water Conservation.</p> <p>INF OBJ 42 To continue the upgrading and rehabilitation of water main networks <b>in conjunction with Irish Water</b>.</p>

		<p>INF OBJ 43 To reduce leakage and wastage from the water supply system wherever possible in the interest of achieving efficiency and sustainability.</p> <p>INF OBJ 44 To <b>seek to</b> replace the cast iron water mains in Navan <b>in conjunction with Irish Water</b>.</p> <p><b>INF POL 36A: The Councils in conjunction with Irish Water shall consult the EPA publication (2012) "The Provision and Quality of Drinking Water in Ireland - A Report for the Year 2011" (and any subsequent update) in the establishment and maintenance of water sources in the County.</b></p> <p><b>INF OBJ 46A: The Councils in conjunction with Irish Water shall undertake recommendations made by the EPA arising from failure to meet drinking water standards and enlistment on the EPA's Remedial Action List.</b></p>
Failure to contribute towards sustainable transport and associated impacts (including emissions)	to and	<p>INF POL 6 To provide for the future transportation needs of Navan and environs in a sustainable manner which provides for different transport modes.</p> <p>INF POL 7 To integrate land use planning and transportation planning.</p> <p>INF POL 8 To consolidate development in areas which are served by public transport and a good road network.</p> <p>INF POL 9 To reduce the need to travel, especially by car, by compact development with mixed uses.</p> <p>INF POL 10 To concentrate developments which generate large numbers of trips, such as offices, shops and labour intensive employment along existing and proposed transportation corridors.</p> <p>INF POL 11 To locate development that generates large numbers of heavy goods vehicle movements close to major roads.</p> <p>INF POL 15 To establish a 30kph speed limit in the town centre area to reduce the risk and severity of accidents especially for vulnerable road users and to provide environmental benefits such as reduced noise levels.</p> <p>INF OBJ 2 (c) In the assessment of development management proposals, the Councils shall have regard to the Navan Traffic Model (2012) and to the conclusions drawn therein regarding the capacity of the existing road network to accommodate additional traffic generation and the capacity constraints which are being experienced at key junctions particularly during the a.m. peak (8.30 – 9.30 a.m.). It shall be a requirement of any development management proposal to demonstrate to the relevant Planning Authority as part of the planning application that development can be accommodated within particular areas of Navan in advance of the further completion of the Outer Orbital Road Network (Local Distributor Road refer).</p> <p>. This may include the provision by the respective developer of alternative solutions such as traffic management or demand management measures which effectively and satisfactorily address the particular circumstances which prompt the necessity for the road proposal in advance of the proposed development. Such as assessment shall include, inter alia, the following</p> <ul style="list-style-type: none"> <li>• demonstrate the impact the development will have on the network, using the existing traffic model;</li> <li>• demonstrate the considerations given to serve the demand arising from the proposed development from different areas providing for all modes of transport;</li> <li>• demonstrate the weakness in the road network that will be affected and ensure that any proposals do not compromise existing investment in walking, cycling and public transport;</li> <li>• review measures which would reduce the use of demand at peak times and measures that would encourage increased use of alternative modes (combination of mobility management plans and infrastructure), and;</li> <li>• demand management particularly in the form of parking.</li> </ul> <p>. In effect, this will demonstrate that the proposed development will not give rise to a significant or unsustainable increase in the overall level of car trips in the particular area of Navan and that the proposed scheme is consistent with Smarter Travel objectives and targets.</p> <p>INF POL 19 To promote an attractive public realm of pedestrian footpaths, cycle ways, street landscaping, bus stops/shelters, street furniture, good signage and quality public lighting.</p> <p>INF POL 20 To promote the policies set out in the National Cycle Policy Framework 2009-2020.</p> <p>INF OBJ 13 To improve accessibility and facilities for people with mobility impairments and /or disabilities.</p> <p>INF OBJ 14 To prepare an integrated pedestrian and cycle path network for Navan as provided for in the Local Transport Plan, inclusive of additional bridging points over the Boyne &amp; Blackwater Rivers, and to implement the emerging network, subject to the availability of finances, resources and physical constraints.</p> <p>INF OBJ 15 To examine the feasibility of pedestrianising Trimgate Street from Cannon Row to Kennedy Road once the M3 Motorway has been completed and progress has been made in delivering the local distributor road network and if deemed feasible, to carry out the necessary works to facilitate the introduction of pedestrianisation. To similarly examine and implement where appropriate the pedestrianisation of Bakery Lane, Old Cornmarket and Watergate Street as part of subsequent phases.</p> <p>INF OBJ 16 To require that all new significant developments including new institutions, employment centres, sports complexes, leisure facilities and industries provide for adequate cycle facilities, in the form of bike parking, sheltered bike parking, lockers and shower facilities.</p> <p>INF OBJ 17 To provide a pedestrian crossing on the Slane Road adjacent to the large residential areas over the lifetime of the plan.</p> <p>INF OBJ 18 To promote and facilitate the development of cycling and walking facilities in the town.</p>

	<p><b>ECON DEV POL 9 The Councils, in tandem with the EPA, will seek to ensure that all developments are operated in a manner that does not contribute to deterioration in air quality.</b></p> <p><b>ECON DEV POL 10 To seek to consider noise emissions in accordance with good practice and relevant legislation.</b></p>
Increases in waste levels	<p>INF POL 66 To implement the policies and objectives of the Waste Management Plan for the North East Region.</p> <p>INF OBJ 59 To require the submission of a waste management plan for developments which meet the threshold for such plans as set out in the 'Best Practice Guidelines on the Preparation of Waste Management Plans for Construction and Demolition Projects' (DoEHLG 2006) or its replacement.</p>
Effects on entries to the Record of Monuments and Places and other archaeological heritage	<p>In terms of <del>Architectural</del> <b>Archaeological</b> Heritage, it is the policy of Meath County Council and Navan Town Council:</p> <p>HER POL 10:</p> <p>(a) To protect (in-situ where practicable or as a minimum, preservation by record) all monuments included in the Record of Monuments and Places (including those newly discovered).</p> <p>(b) To seek to protect, where practicable, the setting of and access to sites. In securing such protection the planning authorities will have regard to the advice and recommendations of the Department of <b>Arts, Heritage and the Gaeltacht</b> <del>the Environment, Heritage and Local Government</del>.</p> <p>(c) To require that all applications for development within the zone of archaeological potential are accompanied by a professional archaeological impact assessment.</p> <p>(d) Where remnants of burgage plots do remain intact, development proposals on such plots should reflect this character within the design and layout of proposals. In order to promote the renewal of such areas, design guidance will be provided, if necessary, for such sites at preplanning stage.</p>
Effects on entries to the Records of Protected Structures, Architectural Conservation Areas and other architectural heritage	<p>In terms of <del>Architectural</del> <b>Archaeological</b> Heritage it is an objective of Meath County Council &amp; Navan Town Council:</p> <p>HER OBJ 5: When considering development in the vicinity of archaeological monuments, the planning authorities shall aim to achieve a satisfactory buffer area between the development and the monument in order to ensure the preservation and enhancement of the amenity associated with the monument. This shall be achieved in consultation with the Department of <b>Arts, Heritage and the Gaeltacht</b> <del>the Environment, Heritage and Local Government</del>. Buffer areas shall not be included within the required open space area of any development but should be in addition to such requirements.</p> <p>HER POL 1: To preserve, protect and enhance the architectural heritage of Navan and to ensure that new development makes a positive contribution to the historic character of Navan.</p> <p>HER POL 2: To seek the retention of historic shop fronts and pub fronts as part of the streetscape of Navan.</p> <p>HER POL 3: To encourage the development of compact urban forms by consolidating existing development boundaries and utilising brownfield sites in preference to expanding urban areas into the countryside and adjoining settlements.</p> <p>HER OBJ 1: To preserve the character of the Navan Historic Core Architectural Conservation Area.</p> <p>HER OBJ 2: To achieve the preservation of the special character of places, areas, groups of structures and townscapes within the town and environs by: Encouraging local initiatives which promote the preservation of the special character of Architectural Conservation Areas.</p> <p>HER POL 4: To ensure that all planning applications relating to structures in an ACA or proposed ACA, including public works projects, should be referred to the Conservation Officer and to the Prescribed Bodies for comment prior to a decision being made.</p> <p>HER POL 5: To support and encourage the re-use of suitable redundant or obsolete buildings within the ACA.</p> <p>HER POL 6: To encourage the retention and protection of all structures which contributes in a positive manner to the character of the ACA.</p> <p>HER POL 7: Within the Architectural Conservation Area to have regard to:</p> <ul style="list-style-type: none"> <li>• The impact of proposed development on the character and appearance of the Architectural Conservation Area in terms of the height and massing of built forms, and the compatibility of design, materials, colour and finishes.</li> <li>• The impact of proposed development on the character and integrity of the area and the approaches thereto, and will promote compatible uses within compatible forms of infill development.</li> <li>• The need to retain architectural and townscape elements such as shop fronts, sash windows, gutters and down pipes, decorative plasterwork, etc. that contribute to the character and appearance of the ACA.</li> </ul> <p>HER POL 8: To encourage the retention of all architectural and townscape elements which contribute to the character of the ACA.</p> <p>HER OBJ 3: It is the intention of the planning authorities by the designation of the Navan Historic Core Architectural Conservation Area:</p> <ul style="list-style-type: none"> <li>• To protect and enhance the architectural heritage of Navan for future generations.</li> <li>• To preserve the historic street pattern within the core of the town.</li> <li>• To require that all new developments shall observe the existing scale of the town.</li> <li>• To protect the character of the existing streetscape by giving consideration to the suitability of style, construction materials, colour and decoration to be used in any proposals for development taking place within this area.</li> <li>• To encourage appropriate new uses for empty and under-utilised buildings.</li> </ul>

	<ul style="list-style-type: none"> <li>• To avoid the destruction of minor historic elements whose cumulative loss would severely erode the cultural significance of the town.</li> </ul> <p>HER POL 9: The following shall be the policy of the planning authorities with regard to protected structures in the Navan Development Plan area:</p> <ul style="list-style-type: none"> <li>• To refuse permission, either in whole or in part, for the demolition of protected structures, save in exceptional circumstances.</li> <li>• To resist removal or modification of features of architectural importance.</li> <li>• To resist interventions which would negatively affect the character of a structure, either externally or internally.</li> <li>• To resist development that would adversely affect the setting of a protected structure.</li> <li>• To require that all planning applications relating to protected structures shall be accompanied by drawings and documents sufficient to describe the impact of the proposed development on the character of the structure.</li> <li>• To encourage the retention of all features of architectural heritage importance;</li> <li>• To encourage works of renovation and renewal which maintain and enhance the character of a protected structure, either externally or internally;</li> <li>• To encourage development which has a positive impact on the setting of a protected structure.</li> </ul>
Occurrence of adverse visual impacts	<p>HER POL 29: To maintain and enhance the diverse and high quality landscape in Navan and its environs.</p> <p>HER OBJ 4: That the following views shall be protected, as illustrated on an associated map:</p> <ul style="list-style-type: none"> <li>• VP01 Towards the old Kilcarn Bridge from the new Kilcarn Bridge on the N3 Dublin Road</li> <li>• VP02 Towards the old Kilcarn Bridge from the N3 Dublin Road, heading south east</li> <li>• VP03 Towards the Motte and the Railway Viaduct, on the N3 Dublin Road</li> <li>• VP04 Towards the Railway Viaduct, on the N3 Dublin Road, heading south east</li> <li>• VP05 Towards Athlumney Bridge, the Rivermill and the Confluence of the River Blackwater and Boyne, from the N3</li> <li>• VP06 Towards Athlumney Bridge, the Rivermill and Athlumney Road from Timmons Hill</li> <li>• VP07 Of the Confluence of the River Blackwater and Boyne, from the Viewing Area adjoining the N3</li> <li>• VP08 Towards Ruxton's Lock at the Ramparts heading east</li> <li>• VP09 Towards Ruxton's Lock at the Ramparts heading west</li> <li>• VP10 Towards the remains of Blackcastle House, from the Ramparts</li> <li>• VP11 Of St. Mary's Church of Ireland from Upper Flower Hill</li> <li>• VP12 Towards the Rivermill and the Railway Viaduct from the ancient Navan - Kells walkway</li> <li>• VP13 Of Darker's Mill along the bank of the Blackwater River from the area of open space on the opposite side of the River along the N3</li> <li>• VP14 Of the Blackwater River and Weir from Blackwater Bridge looking east</li> <li>• VP15 Towards Spicer's Mill from the proposed Town Park</li> <li>• VP16 Towards the Blackwater Railway Bridge from the northern bank of the Blackwater, west of the proposed Town Park</li> <li>• VP17 Of Athlumney Castle from Convent Lane, heading south east</li> <li>• VP18 Of Athlumney Castle from Convent Lane, heading north west</li> </ul> <p>RURAL ENT POL 5 In the development of tourist facilities, regard will be had to the landscape's ability to accommodate such development.</p> <p>RURAL ENT POL 9 To ensure that development for aggregates / mineral extraction, processing and associated concrete production does not significantly impact on the following areas:</p> <ol style="list-style-type: none"> <li>1) Existing &amp; Proposed Special Areas of Conservation (SACs);</li> <li>2) Special Protection Areas (SPAs);</li> <li>3) Existing &amp; Proposed Natural Heritage Areas (pNHAs);</li> <li>4) Other areas of importance for the conservation of flora and fauna;</li> <li>5) Areas of significant archaeological potential;</li> <li>6) In the vicinity of a recorded monument, and;</li> <li>7) Sensitive landscapes.</li> </ol>
Other – Climate Adaptation	<p><b>INF POL 57: The Councils recognise European and national objectives for climate adaptation and will work with the EPA, Regional Authorities and neighbouring planning authorities in implementing future Guidance for climate change proofing of land use plan provisions as is flagged in the National Climate Change Adaptation Framework (DECLG, 2012).</b></p>



## Section 9 Monitoring Measures

### 9.1 Introduction

The SEA Directive requires that the significant environmental effects of the implementation of plans and programmes are monitored. This section details the measures which will be used in order to monitor the likely significant effects of implementing the Plan as varied.

Monitoring can enable, at an early stage, the identification of unforeseen adverse effects and the undertaking of appropriate remedial action.

### 9.2 Indicators and Targets

Monitoring is based around indicators which allow quantitative measures of trends and progress over time relating to the Strategic Environmental Objectives identified in Section 5 and used in the evaluation. Each indicator to be monitored is accompanied by the target(s) which were identified with regard to the relevant strategic actions.

Table 10.1 overleaf shows the indicators and targets which have been selected for monitoring the likely significant environmental effects of implementing the Variation, if unmitigated.

The Monitoring Programme may be updated to deal with specific environmental issues - including unforeseen effects - as they arise. Such issues may be identified by the Council or identified to the Council by other agencies.

### 9.3 Sources

Measurements for indicators generally come from existing monitoring sources. Existing monitoring sources include those maintained by the Council and the relevant authorities e.g. the Environmental Protection Agency, the National Parks and Wildlife Service and the Central Statistics Office.

Internal monitoring of the environmental effects of grants of permission in the Council will provide monitoring of various indicators and targets on a *grant of permission by grant*

*of permission*<sup>36</sup> basis. Where significant adverse effects - including positive, negative, cumulative and indirect - have the potential 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.

### 9.4 Reporting

A stand-alone Monitoring Report on the significant environmental effects of implementing the Plan as varied will be prepared before in advance of the beginning of the review of the Plan. This report should address the indicators set out below.

The Council is responsible for the ongoing review of indicators and targets, collating existing relevant monitored data, the preparation of monitoring evaluation report(s), the publication of these reports and, if necessary, the carrying out of corrective action.

### 9.5 Thresholds

Thresholds at which corrective action will be considered include:

- The occurrence of flood events;
- Court cases taken by the Department of Arts, Heritage and the Gaeltacht regarding impacts upon archaeological heritage including entries to the RMP;
- Complaints received from statutory consultees regarding avoidable environmental impacts resulting from development which is granted permission under the Plan as varied;
- Boil notices on drinking water; and
- Fish kills.

<sup>36</sup> The likely significant effects of development proposals on environmental sensitivities are further determined during the development management process. By documenting this determination (e.g. whether a proposed development will impact upon a Protected Structure or whether a proposed development can be adequately served with water services) while granting permissions, or at a later date, the requirement to monitor the effects of implementing the Plan as varied can be achieved.

**Table 9.1 Selected Indicators, Targets and Monitoring Sources**

Environmental Component	Selected Indicator(s)	Selected Target(s)	Source (Frequency)
<b>Biodiversity, Flora and Fauna</b>	B1: Conservation status of habitats and species as assessed under Article 17 of the Habitats Directive	B1: Maintenance of favourable conservation status for all habitats and species protected under national and international legislation to be unaffected by implementation of the Plan as varied <sup>37</sup>	<ul style="list-style-type: none"> <li>Internal monitoring of environmental effects of grants of permission (grant by grant).</li> <li>Department of Arts, Heritage and the Gaeltacht report of the implementation of the measures contained in the Habitats Directive - as required by Article 17 of the Directive (every 6 years).</li> <li>Consultations with the NPWS (at monitoring evaluation - see Section 9.4).</li> </ul>
	B2: Percentage loss of functional connectivity without remediation resulting from development provided for by the Plan as varied	B2: No significant ecological networks or parts thereof which provide functional connectivity to be lost without remediation resulting from development provided for in the Plan as varied	<ul style="list-style-type: none"> <li>Internal monitoring of environmental effects of grants of permission (grant by grant).</li> <li>CORINE mapping resurvey (every c. 5 years).</li> </ul>
	B3i: Number of significant impacts on relevant habitats, species, environmental features or other sustaining resources in designated sites including Wildlife Sites resulting from development provided for by the Plan as varied	B3i: Avoid significant impacts on relevant habitats, species, environmental features or other sustaining resources in designated sites including Wildlife Sites resulting from development provided for by the Plan as varied	<ul style="list-style-type: none"> <li>Internal monitoring of environmental effects of grants of permission (grant by grant).</li> <li>Consultations with the NPWS (at monitoring evaluation - see Section 9.4).</li> </ul>
	B3ii: Number of significant impacts on the protection of species listed on Schedule 5 of the Wildlife Act 1976	B3ii: No significant impacts on the protection of species listed on Schedule 5 of the Wildlife Act 1976	
<b>Population and Human Health</b>	PHH1: Occurrence (any) of a spatially concentrated deterioration in human health arising from environmental factors resulting from development provided for by the Plan as varied, as identified by the Health Service Executive and Environmental Protection Agency	PHH1: No spatial concentrations of health problems arising from environmental factors as a result of implementing the Plan as varied	<ul style="list-style-type: none"> <li>Consultations with EPA and Health Service Executive (at monitoring evaluation - see Section 9.4).</li> </ul>
<b>Soil</b>	S1: Soil extent and hydraulic connectivity	S1: To minimise reductions in soil extent and hydraulic connectivity	<ul style="list-style-type: none"> <li>Internal monitoring of environmental effects of grants of permission (grant by grant).</li> </ul>

<sup>37</sup> 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.

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Environmental Component	Selected Indicator(s)	Selected Target(s)	Source (Frequency)
<b>Water</b>	W1i: Classification of Overall Status (comprised of ecological and chemical status) under the European Communities Environmental Objectives (Surface Waters) Regulations 2009 (SI No. 272 of 2009)	W1i: Not to cause deterioration in the status of any surface water or affect the ability of any surface water to achieve 'good status' <sup>38</sup> by 2015	<ul style="list-style-type: none"> <li>Internal monitoring of environmental effects of grants of permission (grant by grant).</li> <li>Data issued under the Water Framework Directive Monitoring Programme for Ireland.</li> </ul>
	W2: Groundwater Quality Standards and Threshold Values under Directive 2006/118/EC	W2: Not to affect the ability of groundwaters to comply with Groundwater Quality Standards and Threshold Values under Directive 2006/118/EC	<ul style="list-style-type: none"> <li>Internal monitoring of environmental effects of grants of permission (grant by grant).</li> <li>Data issued under the Water Framework Directive Monitoring Programme for Ireland (multi-annual).</li> </ul>
	W3: Number of incompatible 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 in compliance with <i>The Planning System and Flood Risk Management Guidelines for Planning Authorities</i>	<ul style="list-style-type: none"> <li>Internal monitoring of environmental effects of grants of permission (grant by grant).</li> </ul>
<b>Material Assets</b>	M1: Number of new developments granted permission which can be adequately and appropriately served with waste water treatment over the lifetime of the Plan as varied	M1: All new developments granted permission to be connected to and adequately and appropriately served by waste water treatment over the lifetime of the Plan as varied	<ul style="list-style-type: none"> <li>Internal monitoring of environmental effects of grants of permission (grant by grant).</li> </ul>
	M2: 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 as a result of implementing the Plan as varied	M2: 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 as a result of implementing the Plan as varied	<ul style="list-style-type: none"> <li>EPA The Provision and Quality of Drinking Water in Ireland reports (multi-annual).</li> <li>EPA Remedial Action List (every quarter).</li> </ul>
	M3i: Total collected and brought household waste M3ii: Packaging recovered (t) by self-complying packagers	M3i: Minimise increases in and, where possible, reduce household waste generation M3ii: Maximise increases in packaging recovered (t) by self-complying packagers	<ul style="list-style-type: none"> <li>EPA National Waste Reports</li> <li>EPA Ireland's Environment Reports</li> </ul>
<b>Air and Climatic Factors</b>	C1: Percentage of population travelling to work, school or college by public transport or non-mechanical means	C1: An increase in the percentage of the population travelling to work, school or college by public transport or non-mechanical means	<ul style="list-style-type: none"> <li>CSO Population Data (every c. 5 years).</li> </ul>

<sup>38</sup> Good status as defined by the WFD equates to approximately Q4 in the current national biological classification of rivers.

Environmental Component	Selected Indicator(s)	Selected Target(s)	Source (Frequency)
<b>Cultural Heritage</b>	CH1: Percentage of entries to the Record of Monuments and Places - including Zones of Archaeological Potential (and the context of the above within the surrounding landscape where relevant) – protected from adverse effects resulting from development which is granted permission under the Plan as varied	CH1: Protect entries to the Record of Monuments and Places - including Zones of Archaeological Potential (and their context of the above within the surrounding landscape where relevant) from adverse effects resulting from development which is granted permission under the Plan as varied	<ul style="list-style-type: none"> <li>• Internal monitoring of environmental effects of grants of permission (grant by grant).</li> <li>• Consultation with Department of Arts, Heritage and the Gaeltacht (at monitoring evaluation - see Section 9.4).</li> </ul>
	CH2: Percentage of entries to the Record of Protected Structures and Architectural Conservation Areas and their context protected from adverse effects resulting from development which is granted permission under the Plan as varied	CH2: Protect entries to the Record of Protected Structures and Architectural Conservation Areas and their context from adverse effects resulting from development which is granted permission under the Plan as varied	<ul style="list-style-type: none"> <li>• Internal monitoring of environmental effects of grants of permission (grant by grant).</li> <li>• Consultation with Department of Arts, Heritage and the Gaeltacht (at monitoring evaluation - see Section 9.4).</li> </ul>
<b>Landscape</b>	L1: Number of complaints received from statutory consultees regarding avoidable impacts on the landscape - especially with regard to landscapes which are most valuable and most sensitive to change and protected focal points and views - resulting from development which is granted permission under the Plan as varied	L1: No developments permitted which result in avoidable impacts on the landscape - especially with regard to landscapes which are most valuable and most sensitive to change and protected focal points and views - resulting from development which is granted permission under the Plan as varied	<ul style="list-style-type: none"> <li>• Internal monitoring of environmental effects of grants of permission (grant by grant).</li> </ul>



## Section 10 SEA Summary Table

Below is a summary table outlining how likely significant effects (if unmitigated) are linked to relevant mitigation measure(s) - which have been integrated into the Plan as varied - and indicator(s) which will be used for monitoring.

**Table 10.1 SEA Summary Table: Likely Significant Effects, Mitigation Measures and Indicators for Monitoring**

Likely Significant Effect, if unmitigated	Mitigation Measure Reference(s)	Primary Indicator(s) for Monitoring
Loss of biodiversity with regard to Natura 2000 Sites and Annexed habitats and species & Loss of biodiversity with regard to designated sites including Wildlife Sites and species listed on Schedule 5 of the Wildlife Act 1976	HER POL 11 HER OBJ 8 HER POL 16 HER POL 17 HER POL 18 HER POL 19 HER POL 20 HER POL 21 HER POL 21A	B1: Conservation status of habitats and species as assessed under Article 17 of the Habitats Directive B3i: Number of significant impacts on relevant habitats, species, environmental features or other sustaining resources in designated sites including Wildlife Sites resulting from development provided for by the Plan B3ii: Number of significant impacts on the protection of species listed on Schedule 5 of the Wildlife Act 1976.
Loss of biodiversity with regard to ecological connectivity and stepping stones	HER POL 14 HER POL 22 HER POL 23 HER POL 30 HER POL 31 INF POL 49 INF POL 56 HER POL 21B	B2: Percentage loss of functional connectivity without remediation resulting from development provided for by the Plan as varied
Spatially concentrated deterioration in human health	Land Use Zoning OBJ 1  Also see relevant measures under Air and Climatic Factors, Water, Material Assets and Soil.	PHH1: Occurrence (any) of a spatially concentrated deterioration in human health arising from environmental factors resulting from development provided for by the Plan as varied, as identified by the Health Service Executive and Environmental Protection Agency
Damage to the hydrogeological and ecological function of the soil resource	See relevant measures under Biodiversity and Flora and Fauna and Water.	S1: Soil extent and hydraulic connectivity
Adverse impacts upon the status and quality of water bodies	INF POL 43 INF POL 44 INF POL 41 INF POL 42 INF POL 43A INF POL 43B	W1: Classification of Overall Status (comprised of ecological and chemical status) under the European Communities Environmental Objectives (Surface Waters) Regulations 2009 (SI No. 272 of 2009) W2: Groundwater Quality Standards and Threshold Values under Directive 2006/118/EC

Likely Significant Effect, if unmitigated	Mitigation Measure Reference(s)	Primary Indicator(s) for Monitoring
Increase in the risk of flooding	INF POL 49 INF POL 50 INF POL 51 INF POL 52 INF POL 53 INF POL 66 INF POL 55 INF OBJ 47 INF OBJ 48 INF OBJ 49 INF OBJ 50 INF OBJ 51 INF OBJ 52 INF OBJ 53 INF OBJ 54 INF OBJ 55 INF POL 58 INF POL 59 INF POL 60 INF POL 61 INF POL 62 INF POL 63 INF POL 64	W3: Number of incompatible developments granted permission on lands which pose - or are likely to pose in the future - a significant flood risk
Failure to provide adequate and appropriate waste water treatment	INF OBJ 41 INF POL 46 INF POL 47 INF POL 48 INF OBJ 45 INF OBJ 46 INF OBJ 45A	M1: Number of new developments granted permission which can be adequately and appropriately served with waste water treatment over the lifetime of the Plan as varied
Failure to comply with drinking water regulations and serve new development with adequate drinking water that is both wholesome and clean	INF POL 36 INF POL 37 INF POL 38 INF POL 39 INF POL 40 INF POL 45 INF OBJ 42 INF OBJ 43 INF OBJ 44 INF OBJ 45 INF POL 36A INF OBJ 46A	M2: 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 as a result of implementing the Plan as varied

<b>Likely Significant Effect, if unmitigated</b>	<b>Mitigation Measure Reference(s)</b>	<b>Primary Indicator(s) for Monitoring</b>
Failure to contribute towards sustainable transport and associated impacts	INF POL 6 INF POL 7 INF POL 8 INF POL 9 INF POL 10 INF POL 11 INF POL 15 INF OBJ 2 (c) INF POL 19 INF POL 20 INF OBJ 13 INF OBJ 14 INF OBJ 15 INF OBJ 16 INF OBJ 17 INF OBJ 18 ECON DEV POL 9 ECON DEV POL 10	C1: Percentage of population travelling to work, school or college by public transport or non-mechanical means
Increases in waste levels	INF POL 54 INF OBJ 59	M3i: Total collected and brought household waste M3ii: Packaging recovered (t) by self-complying packagers
Effects on entries to the Record of Monuments and Places and other archaeological heritage	HER POL 10	CH1: Percentage of entries to the Record of Monuments and Places - including Zones of Archaeological Potential (and the context of the above within the surrounding landscape where relevant) – protected from adverse effects resulting from development which is granted permission under the Plan as varied
Effects on entries to the Records of Protected Structures, Architectural Conservation Areas and other architectural heritage	HER OBJ 5 HER POL 1 HER POL 2 HER POL 3 HER OBJ 1 HER OBJ 2 HER POL 4 HER POL 5 HER POL 6 HER POL 7 HER POL 8 HER OBJ 3 HER POL 9	CH2: Percentage of entries to the Record of Protected Structures and Architectural Conservation Areas and their context protected from adverse effects resulting from development which is granted permission under the Plan as varied
Occurrence of adverse visual impacts	HER POL 29 HER OBJ 4 RURAL ENT POL 5 RURAL ENT POL 9	L1: Number of complaints received from statutory consultees regarding avoidable impacts on the landscape - especially with regard to landscapes which are most valuable and most sensitive to change and protected focal points and views - resulting from development which is granted permission under the Plan