

ENVIRONMENTAL REPORT

OF THE

TULLAMORE TOWN AND ENVIRONS DEVELOPMENT PLAN 2010-2016

STRATEGIC ENVIRONMENTAL ASSESSMENT



For: Tullamore Town Council & Offaly County Council

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JUNE 2010

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List of Abbreviations

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

Glossary

Biodiversity and Flora and Fauna

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

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

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

Biotic Index Values (Q Values)

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

Environmental Problems

Annex I of Directive 2001/42/EC of the European Parliament and of the Council of Ministers, of 27 June 2001, on the assessment of the effects of certain plans and programmes on the environment (the Strategic Environmental Assessment Directive) requires that information is provided on 'any existing environmental problems which are relevant to the plan or programme', thus, helping to ensure that the proposed strategic action does not make existing environmental problems worse.

Environmental problems arise where there is a conflict between current environmental conditions and ideal targets. If environmental problems are identified at the 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 Act of 2000 to define a structure included by a planning authority in its Record of Protected Structures. Such a structure shall not be altered or demolished in whole or part without obtaining planning permission or confirmation from the planning authority that the part of the structure to be altered is not protected.

Recorded Monument

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

Scoping

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

Strategic Actions

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

Strategic Environmental Assessment (SEA)

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

Strategic Environmental Objective (SEO)

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

Section 1 SEA Introduction and Background

1.1 Introduction and Terms of Reference

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

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) and in order to improve planning and environmental management of future development in the Town and Environs. This report should be read in conjunction with the Development Plan.

1.2 SEA Definition

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

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

The kind of development that occurs in Tullamore and where it occurs will be significantly determined by the implementation of a Development Plan. By anticipating the effects and avoiding areas in which growth cannot be sustainably accommodated and by

directing development towards more compatible and robust receiving environments real improvements in environmental management and planning can occur in the Town - the scope of any EIAs which may be required as part of planning applications are likely to be reduced; and, planning applications are more likely to be granted permission.

1.3 Legislative Context

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

1.4 Implications for the Councils and the Elected Members

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

Section 2 SEA Methodology

2.1 Introduction

This section details how the SEA for the Development Plan has been undertaken alongside the preparation of the Plan. The SEA

process started in October 2008 and this report has been produced in June 2010.

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

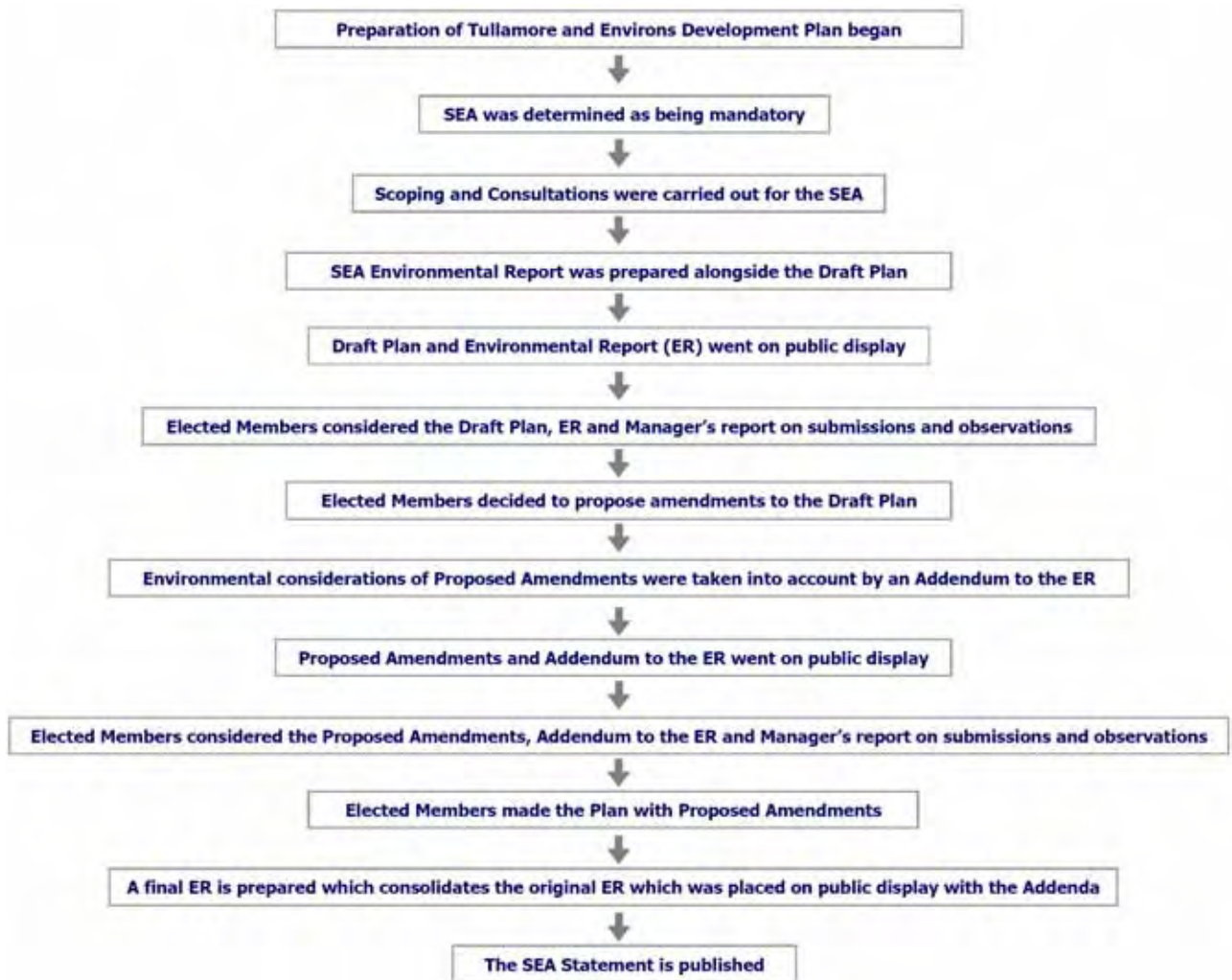


Figure 2.1 Development Plan and SEA Stages

2.2 Scoping

2.2.1 Introduction

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

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

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

The Environmental Protection Agency (EPA), the Department of the Environment, Heritage and Local Government (DEHLG) and the Department of Communications, Energy and Natural

Resources (DCENR)² were all sent SEA scoping notices indicating that submissions or observations in relation to the scope and level of detail of the information to be included in the environmental report could be made to Tullamore Town Council. Written submissions were received on the scope of the SEA from the DEHLG and the DCENR.

Each of the aforementioned environmental authorities was invited to a Scoping Meeting Consultations meeting. Representatives from Offaly County Council, CAAS, the EPA and the DEHLG attended. The information provided at this meeting was considered during the determination of the scope.

In addition, the Councils' intention to carry out SEA as part of the review of the Development Plan was identified during the consultation process on the preparation of the new Development Plan.

The findings of the SEA were communicated to the plan making team on an ongoing basis from the outset in order to allow for their integration into the Development Plan thus minimising the potential for significant negative environmental effects arising from implementation of the Plan.

2.2.2 Most Important Strategic Environmental Issues

The most important strategic environmental issues in Tullamore were identified as follows:

Water

- **Core Issues:** Waste Water Treatment Requirements and capacity of Receiving Waters.
- **Secondary Issues:** Drinking Water and Water Abstraction.

Compliance with Flood Risk Management Guidelines

- **Core Issue:** Flood Risk in Tullamore Town and Environs.

¹ Annex I of the SEA Directive requires that information is provided on 'any existing environmental problems which are relevant to the plan or programme', thus, helping to ensure that the proposed strategic action does not make existing environmental problems worse. Environmental problems arise where there is a conflict between current environmental conditions and ideal targets. If environmental problems are identified at the offset they can help focus attention on important issues and geographical areas where environmental effects of the plan or programme may be likely.

² The Marine function of the Department of Communications, Marine and Natural Resources has been transferred to the Department of Agriculture Food and Fisheries

Ecology

- **Core Issues:** Potential interactions with wetland habitats in Charleville Wood - part of which is designated as a candidate Special Area of Conservation - and Cumulative Issues.

2.3 Environmental Baseline Data and Other Strategic Actions

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

The SEA Directive requires that information is provided on 'any existing environmental problems which are relevant to the plan or programme'. Information is therefore provided on existing environmental problems which are relevant to the Plan, thus helping to ensure that the Plan does not exacerbate any existing environmental problems within or surrounding the Town.

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

In order to describe the baseline (the current state of the environment) in Tullamore, data

was collated from currently available, relevant environmental sources.

2.4 Alternatives

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

Taking into account the objectives and the geographical scope of the Plan, alternatives were formulated by the plan-making team at Offaly County Council.

2.5 The SEA Environmental Report

In this Environmental Report, which was placed on public display alongside the Draft Development Plan, the likely environmental effects of the Plan and the alternatives are predicted and their significance evaluated with regard to the environmental baseline. The Environmental Report provided the decision-makers, the Elected Members, who decided what type of Plan to adopt, as well as the public, with a clear understanding of the likely environmental consequences of decisions regarding the future accommodation of growth in Tullamore. Mitigation measures to prevent or reduce significant adverse effects posed by the Plan, or to maximise any benefits arising, were recommended for integration into the Draft Plan. The alternatives are also presented in this report, as are measures concerning monitoring.

The Environmental Report had to be updated in order to take account of changes which were made to the Draft Plan after it was put on public display and before it was adopted.

2.6 The SEA Statement

After the adoption of the Plan a document referred to as the SEA Statement is prepared and made public. The SEA Statement includes information on: how environmental considerations have been integrated into the Plan - highlighting the main changes to the Plan which resulted from the SEA process; how the Environmental Report and consultations have

been taken into account - summarising the key issues raised in consultations and in the Environmental Report and indicating what action, if any, was taken in response; and, the reasons for choosing the Plan in the light of the other alternatives, identifying the other alternatives considered, commenting on their potential effects and explaining why the Plan was selected.

2.7 Legislative Conformance

This report complies with the provisions of the SEA Regulations and is written in accordance with Schedule 2B of the Planning and Development (Strategic Environmental Assessment) Regulations 2004 (SI No. 436 of 2004). Table 2.1 (overleaf) is a reproduction of the checklist of information to be contained in the Environmental Report (DEHLG, 2004)³ and includes the relevant sections of this report which deal with these requirements.

2.8 Difficulties Encountered

2.8.1 Centralised Data Source

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

2.8.2 WFD Risk Assessment

A minor difficulty arose in that the Grand Canal is an Artificial Water Body and therefore was not included in the SRBD Risk Assessment. The approach to be taken with regard to the risk assessment and management of Artificial Water Bodies in the context of the WFD is currently being developed by both the EPA and Waterways Ireland. Considering the water quality baseline data which is available for the Canal and the lack of this risk assessment and water quality standards for artificial surface water bodies, it is uncertain as to whether or

not there are existing problems with regard to water quality in the Canal.

2.8.3 Waste Water Network Mapping

Only approximately half of the Plan area which is serviced by the waste water network has been mapped and surveyed.

³ DEHLG (2004) *Implementation of SEA Directive (2001/42/EC): Guidelines for Regional Authorities and Planning Authorities* Dublin: Government of Ireland.

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

Table 2.1 Checklist of Information included in this Environmental Report

Section 3 Tullamore's Baseline Environment

3.1 Introduction

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

The environmental baseline is described in line with the legislative requirements, encompassing the following components – biodiversity, flora and fauna, population, human health, soil, water, air and climatic factors, material assets, cultural heritage, landscape and the interrelationship between these components.

Tullamore is situated in the Midlands of Ireland and is County Offaly's primary urban centre. The Plan area includes the Tullamore Town Council Administrative area (red boundary in Figure 3.1) enveloped by Tullamore Environs (blue boundary in Figure 3.1), which is under the administration of Offaly County Council.

The population of the Town and Environs in 2006 was 12,927, which represents a 16.5% population increase between 2002-2006 and a 22.3% increase between 1996-2006.

Tullamore comprises both an urban and rural landscape. The urban landscape displays a predominantly traditional urban form and low rise townscape. The Tullamore River and the Grand Canal bisect the Town Centre, both flowing in an east-west direction. Charleville Demesne lies to the south west of the central urban area.

The Environs area is characterised by an expanse of agricultural land traversed by the Esker Riada to the north of the Town. The extremities of the Environs predominantly comprise agricultural lands with low density dwelling within the open countryside.

Land uses within the urban area include residential, commercial and industrial uses while land uses in the Environs comprise mainly agricultural uses.



Figure 3.1 Ordnance Survey map of the Plan area

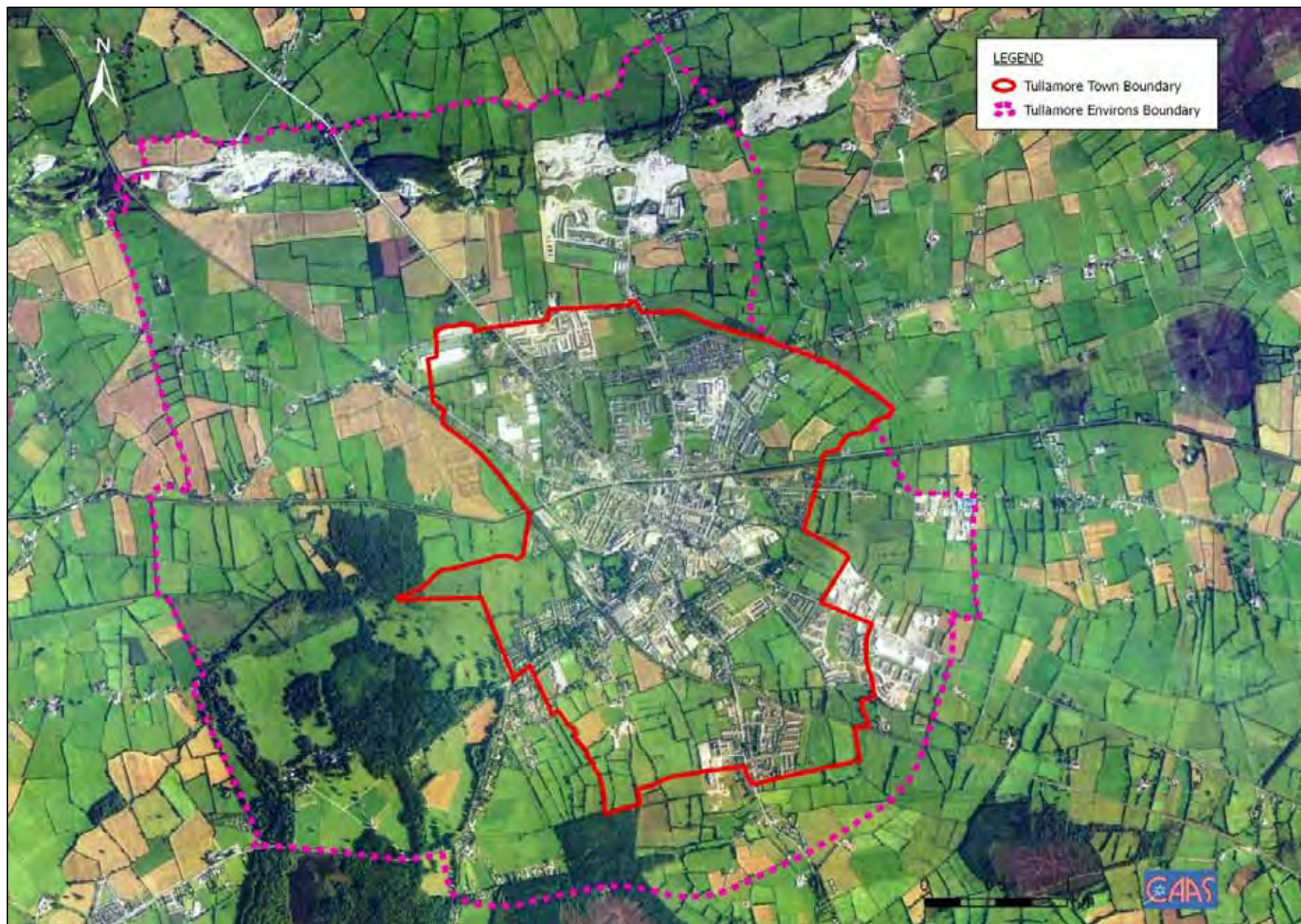


Figure 3.2 Aerial Photo of the Plan area

3.2 Biodiversity and Flora and Fauna

3.2.1 Overview of the Habitats

3.2.1.1 Introduction

Tullamore supports a wide diversity of natural and semi-natural habitats and a wide range of plant and animal species which have come under threat due to development pressures and increased demand for new development land.

Green space, which makes up a large portion of the Plan area, particularly in the Environs, consists of a variety of habitats including corridors which provide for the movement of wildlife. Green space within Tullamore is comprised mainly of agricultural lands and woodlands, including Charleville Demesne and a number of open spaces within the urban areas including Lloyd Town Park. Open spaces and ecological corridors within the Plan area are discussed further in Section 3.2.2.

The Charleville Wood proposed Natural Heritage Area (pNHA) and candidate Special Area of Conservation (cSAC) (Site Code: 000571) is one of the most ancient woods sites in Ireland. The Woods contain a small lake which is an important wildfowl habitat.

The Tullamore River, with tributaries including the Toberfin, and the Silver and Clodiagh Rivers provide habitats for various species in the Plan area.

The Grand Canal including its banks, grassy verges, tow paths, locally important mature hedgerows, drainage ditches running parallel to the canal and areas of adjoining habitat of conservation interest are important in ecological terms. Coarse and pike fishing is possible on the Grand Canal.

Man-made habitats within the Plan area are also important biodiversity areas. Gardens provide habitats for a range of wildlife including various bird species, invertebrates, such as bees and butterflies and mammals, such as hedgehogs, mice, rats and foxes. These species move around between gardens using hedgerows and vegetated areas. These urban green spaces, however small, are therefore of importance as they form part of a network of green spaces

across the Plan area including gardens, parks, graveyards, amenity walks, the Dublin to Galway/Mayo railway line and patches of woodland and scrub within which animals and plants continue to thrive.

3.2.1.2 CORINE Land Cover Mapping⁴

The most recent CORINE data is the CORINE 2000 data, this 2006 update is due to be released shortly. The CORINE 2000 land cover mapping⁵ which classifies land cover under various headings indicates that land cover in Tullamore for the year 2000 (see Figure 3.3) comprised mainly *Pastures* and *Continuous Urban Fabric* with smaller areas of *Non-irrigated Arable Land* and *Forests* dispersed throughout.

Within the Town boundary *Continuous Urban Fabric* is the predominant land use followed by *Pastures* with a small area of *Non-irrigated Arable Land* between the Town boundary and the Environs boundary to the north west.

Minor areas of *Continuous Urban Fabric* radiate into the Environs from the Town Centre.

Mineral Extraction Sites lie to the north west of the Town and to the north east, outside of the Plan boundary. Areas of *Broad Leaved Forest* and *Coniferous Forest* are to the south west of the Town.

Differences in land cover (see Figure 3.4) between 1990 (see Figure 3.4) and 2000 (see Figure 3.3) are minimal with small segments of lands, mainly to the south, south east and east of the Town, changing from *Pastures* to *Discontinuous Urban Fabric*.

⁴ European Environment Agency Coordination of Information on the Environment (2004) *Ireland's Corine Land Cover 2000 (CLC2000)* Copenhagen: EEA

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

Areas of *Broad Leaved Forest* exist to the south west of the Town, *Transitional Woodland Scrub* and *Peat Bogs* lie outside the Plan boundary.

3.2.2 Ecological Networks

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

Within and surrounding the Town, the ecological networks are made up of components including the Grand Canal, the Tullamore, Silver and Clodiagh Rivers and their tributaries and banks, the railway line, the various woodlands, parks, gardens and hedgerows within and surrounding the Plan area and lands used for agriculture.

The privately owned lands of Charleville Castle Demesne continue to provide a significant amenity for the Town. These lands include Charleville Wood (proposed Natural Heritage Area and candidate Special Area of Conservation, Site Code: 000571) and large expanses of agricultural lands.

Parks and open spaces provide for a range of habitats for various species within the Plan area and facilitate linkages to the surrounding countryside for flora and fauna.

3.2.3 Designations

3.2.3.1 Introduction

There are a number of ecologically designated sites within and surrounding the Tullamore Plan area. These sites are mapped in Figure 3.6.

There is one candidate Special Area of Conservation in the Plan area to the south west of the Town. A number of proposed Natural Heritage Areas also exist in the Plan area.

3.2.3.2 Special Areas of Conservation

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

Candidate Special Areas of Conservation (cSACs) have been selected for protection under the European Council Directive on the conservation of natural habitats and of wild fauna and flora (92/43/EEC) by the DEHLG due to their conservation value for habitats and species of importance in the European Union. The sites are *candidate* sites because they are currently under consideration by the Commission of the European Union.

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

Charleville Wood cSAC (Site Code: 000571) lies to the south west of the Town, it is mapped on Figure 3.6.

3.2.3.3 Natural Heritage Areas

Natural Heritage Areas (NHAs) are designated due to their national conservation value for ecological and/or geological/geomorphological heritage. They cover nationally important semi-natural and natural habitats, landforms or geomorphological features, wildlife plant and animal species or a diversity of these natural attributes. NHAs are designated under the Wildlife (Amendment) Act 2000.

Proposed NHAs (pNHAs) were published on a non-statutory basis in 1995, but have not since been statutorily proposed or designated.

3.2.3.4 Designated Sites⁶

The following designated ecological sites are found within or adjacent to the Plan area and are mapped in Figure 3.6.

- **Charleville Wood cSAC and pNHA**
Site Code: 000571

Charleville Wood is a large Oak woodland surrounded by estate parkland and agricultural grassland located about 3 kilometers south-west of Tullamore. The site, which is underlain by deep glacial deposits, includes a small lake with a wooded island, and a stream runs along the western perimeter. The woodland is considered to be one of very few ancient woodlands remaining in Ireland, with some parts undisturbed for at least 200 years. Old Oak woodland is a habitat listed on Annex I of the EU Habitats Directive.

A number of unusual insects have also been recorded in Charleville Wood, notably *Mycetobia obscura* (Diptera), a species known from only one other site in Ireland. The site is also notable for the presence of a large population of the rare snail species, *Vertigo moulinsiana*, which is listed on Annex II of the EU Habitats Directive.

The wetland areas, with their associated bird populations, the rare insect and *Myxomycete* (mould) species contribute further to the conservation significance of the site.

- **The Grand Canal pNHA**
Site Code: 002104

The Grand Canal is a man-made waterway linking the River Liffey at Dublin with the Shannon at Shannon Harbour and the Barrow at Athy. The Grand Canal pNHA comprises the canal channel and the banks on either side of it. A number of different habitats are found within the canal boundaries - hedgerow, tall herbs, calcareous grassland, reed fringe, open water, scrub and woodland. The ecological value of the canal lies more in the diversity of species it supports along its linear habitats than in the presence of rare species. It crosses through agricultural land and therefore provides a refuge for species threatened by modern farming methods.

⁶ Text in this section is taken from the National Parks and Wildlife Service's Site Synopses. Full Site Synopses for these designations can be found in Appendix I

- **Ballyduff Wood pNHA**
Site Code: 001777

This is a small area of beech woodland on glacial drift to the east of the Tullamore-Clara road 4 miles north of Tullamore. The abundance of spindle (*Evonymus europaeus*) is of particular note. The site is further enhanced by areas of herb rich grassland.

- **Ballyduff Esker pNHA**
Site Code: 000885

Ballyduff esker runs from north of Rahan to south of Tyrellspass. As a feature of glacial deposition, the whole structure is of interest, but around Trumpet Hill a pNHA has been proposed for designation because the area is also of considerable ecological interest. This site is of great interest for its mosaic of habitats. Developed on a geomorphological feature typical of the midlands but becoming increasingly rare, this is one of the best known remaining eskers which still supports an open and relatively natural flora.

3.2.3.5 Register of Protected Areas

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

With regard to how waters within the Plan area are used by wildlife, waters in Charleville Wood cSAC have been listed on the RPAs while the Tullamore River has been listed on the RPAs for nutrient sensitive rivers.

The RPA for Water Dependent Habitats includes habitats that are dependent on water: this includes areas already listed by the National Parks and Wildlife Service as Special Areas of Conservation.

Nutrient Sensitive waters include nitrate vulnerable zones and areas designated as sensitive areas under the Urban Waste Water Treatment Directive (91/271/EEC).

In the Plan area, the Tullamore River has been identified on the WFD RPA for Drinking Water. All groundwater underlying the Plan area is listed on the RPA for Drinking Water.

Water bodies which are listed on the RPA are mapped in Figure 3.17 and more information can be found in Section 3.5.3.4.

3.2.4 Existing Problems

Generally, development in Tullamore is not significantly impacting upon designated ecological sites however Site Synopses for these sites identify certain threats to the conservation value of these sites.

The Site Synopsis for the Ballyduff Esker pNHA identifies that areas of the site have been harmed by the heavy use of fertilisers and that mechanical damage due to overstocking has also occurred.

The Site Synopsis for Charleville Wood cSAC and pNHA states that some 10% of the woodland has been underplanted with conifers and other exotic trees which may threaten the survival of the existing natural woodland.

Cumulative effects on the wetlands may occur arising from increased water abstractions.

Aquatic flora and fauna is vulnerable to all forms of pollution such as that which can occur as a result of agricultural run-off and industrial and municipal effluents. As identified under Section 3.5, several water bodies within and surrounding the area are *at significant risk* with regard to meeting legislative water quality objectives under the Water Framework Directive.

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

In the absence of a Development Plan for Tullamore, development would have no guidance as to where it would occur and planning applications would be assessed on an individual basis with flora and fauna, habitats and ecological connectivity protected under a number of higher level strategic actions. The evolution of biodiversity and flora and fauna would be dependent on the rate and extent at which developments take place.

Development along or adjacent to the banks of rivers could result in a reduction in ecological

connectivity within and between these and other habitats.

Pollution of water bodies as a result of any future development along river catchments would be likely to adversely impact aquatic biodiversity and flora and fauna.

Beneficial effects upon biodiversity and flora and fauna which would be likely to arise out of the specific policies and objectives included in the Tullamore Development Plan would be unlikely to be achieved in the absence of the Plan.

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

A Development Plan provides an opportunity to integrate the ecological protection measures required by the Habitats Directive with the planning or development management of vulnerable areas, which might not be present in the absence of a Development Plan.

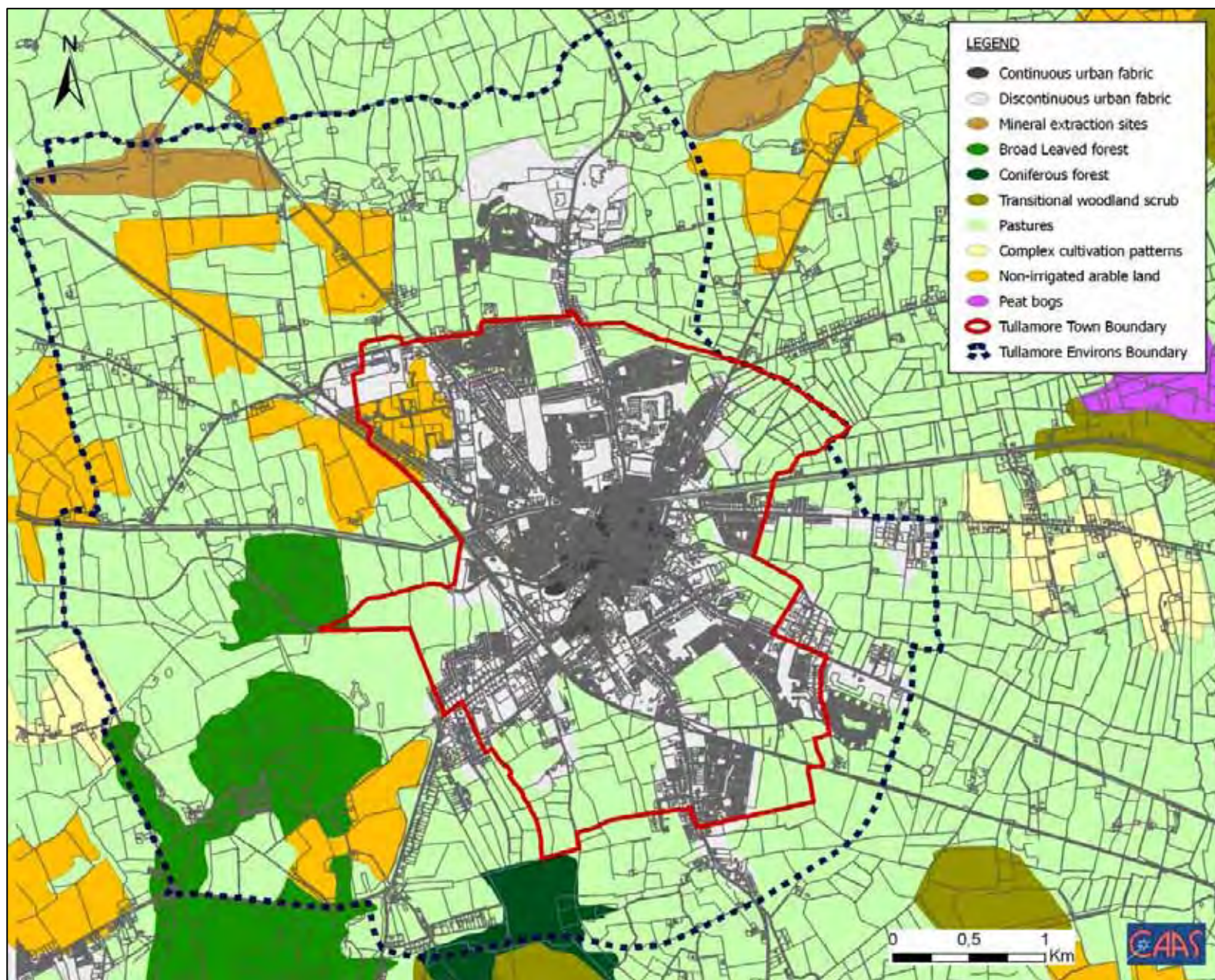


Figure 3.3 CORINE Land Cover 2000

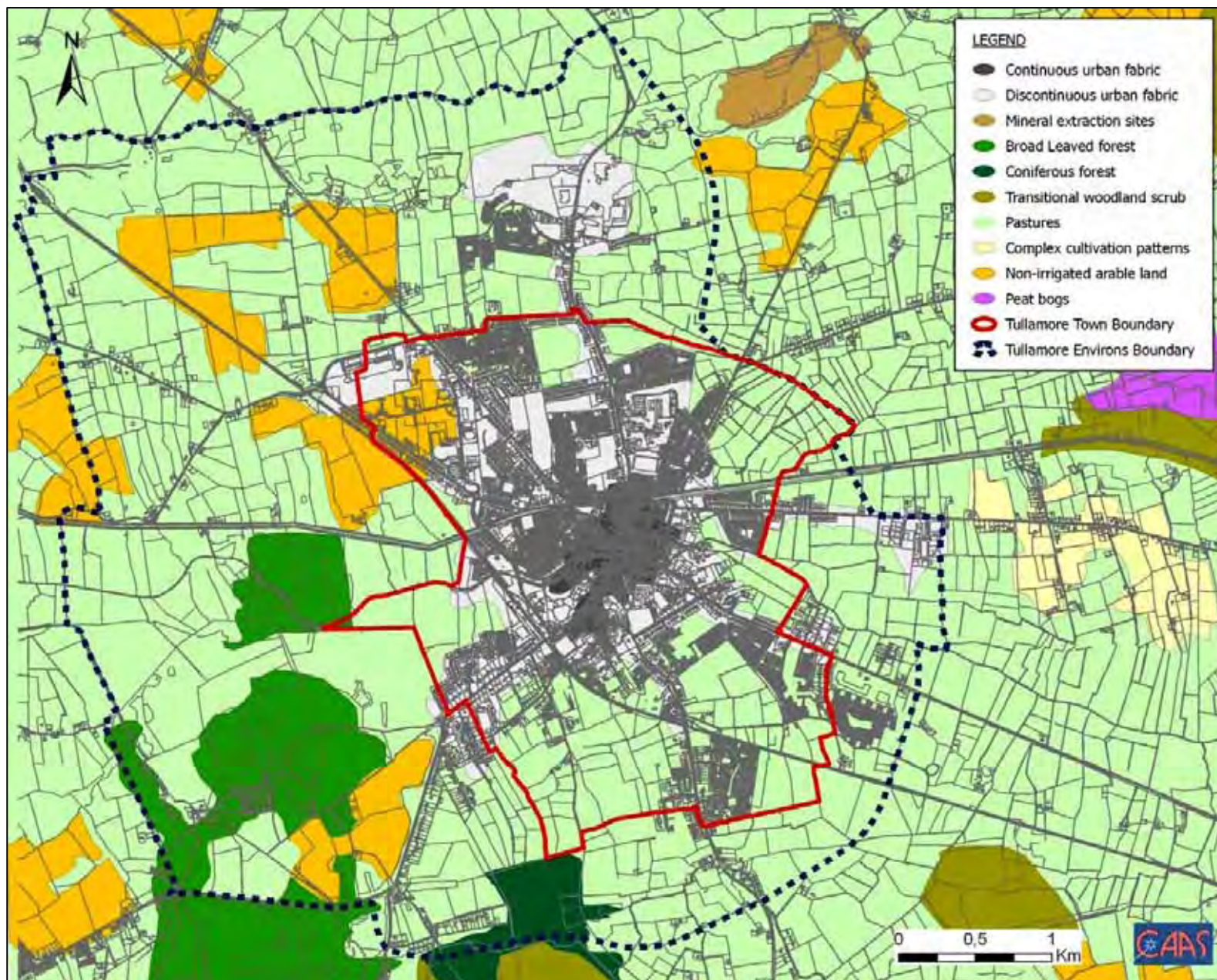


Figure 3.4 CORINE Land Cover 1990

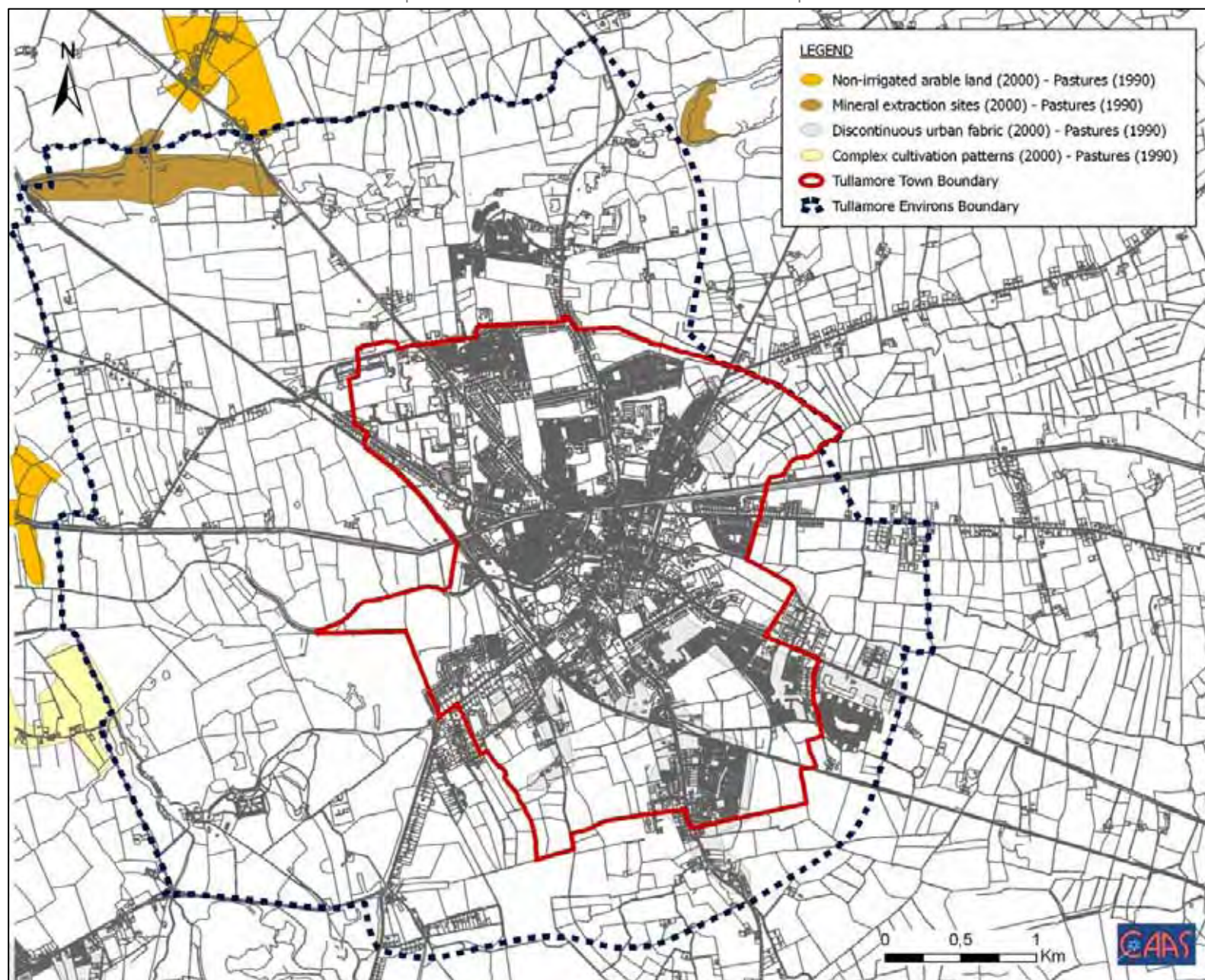


Figure 3.5 CORINE Land Cover Changes 1990-2000

CAAS for Tullamore Town Council and Offaly County Council

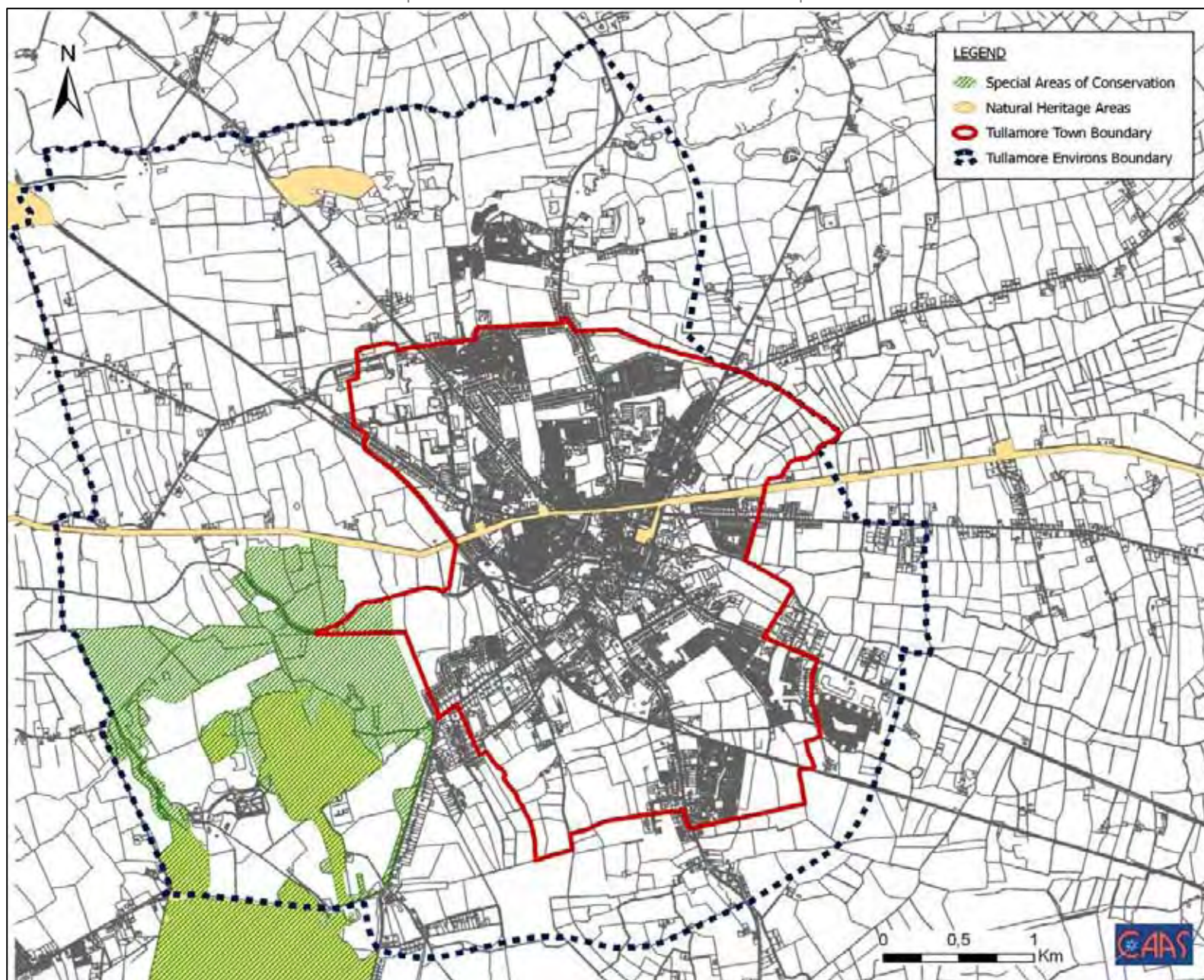


Figure 3.6 Designated Sites

CAAS for Tullamore Town Council and Offaly County Council

3.3 Population and Human Health

3.3.1 Population⁷

For the ten year period from 1996-2006, the Tullamore urban area and its surrounding rural areas have experienced an upward trend in population growth. The unprecedented population growth can be attributed to strong net in-migration and a higher rate of household formation particular within the environs area.

According to the Central Statistics Office (CSO), the population of the Plan area, calculated by adding the population of Tullamore Town (referred to as Tullamore Urban by the CSO) and the population of Tullamore Environs, stood at 12,927 persons in 2006. The 2006 Census revealed a continued trend of increasing population, experienced by the area since 1991.

The population of the Plan area grew by 1,829 persons or 16.48%, between 2002 and 2006, at a time when the national increase was 8.2%. The increase in Tullamore and its Environs was predominantly due to a major growth in population in the Environs area which saw a growth in numbers from 858 in 2002 to 2,027 in 2006, an increase of 144.8%. See Table 3.1 overleaf.

Spatial distribution of the population in the Environs is generally one-off housing, linear in parts. The majority of the population of Tullamore is located within the Town boundary.

3.3.2 Human Health

Human health has the potential to be impacted upon by 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. Hazards or nuisances to human health can arise as a result of exposure to these vectors arising from incompatible adjacent land uses, for example. These factors have been considered with regard to the description of: the

baseline of each environmental component; and the identification and evaluation of the likely significant environmental effects of implementing the Plan and the alternatives.

3.3.3 Existing Problems

Certain environmental vectors within the Plan area - such as air, water or soil - have the potential to transport and deposit contaminants or pollutants, which have the potential to cause harm and adversely impact upon the health of the area's population.

IPPC and/or licensed facilities could be potential polluters to the Plan area if the facilities do not comply with their licenses (see Section 3.6.2.1).

Failure to provide appropriate waste water treatment infrastructure and capacity alongside development could lead to the contamination of drinking water resources. Additional waste water treatment infrastructure/capacity is needed in order to serve existing and proposed development if a sufficient, safe supply of drinking water is to be maintained. This is further detailed in Section 3.7.

Treated effluent arising at the Waste Water Treatment Plant at Kilcruttin is discharged into the Tullamore River. As the plant is currently operating over capacity, there is a risk that discharged water may not meet standards set out under the Urban Waste Water Treatment Directive (91/271/EEC) (amended by Directive 98/15/EEC). Amenities and sporting activities on the Tullamore River may pose a risk to human health if this is the case.

⁷ CSO (various) *Census 2006 Volume 1 - Population Classified by Area; Census 2002 Volume 1 - Population Classified by Area; Census 1996 Volume 1 - Population Classified by Area* Cork: CSO.

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

The occurrence of growth in areas not identified as having environments which are compatible to resultant land uses can result in significant adverse impacts on the environment.

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

	Tullamore Urban				Tullamore Environs				Total			
Census Year	1991	1996	2002	2006	1991	1996	2002	2006	1991	1996	2002	2006
Population	8,622	9,221	10,270	10,900	808	818	828	2027	9,430	10,039	11,098	12,927
Population Change on Previous Census	--	599	1049	630	--	10	10	1199	--	609	1059	1829
% Population Change on Previous Census	--	6.9	11.38	6.13	--	1.24	1.22	144.8	--	6.46	10.55	16.48

Table 3.1 Population Change in the Plan area 1991 - 2006

3.4 Soil

3.4.1 Introduction

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

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

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

3.4.2 Soil Types⁸

Figure 3.7 shows the distribution of soil types across the Plan area. The biodiversity, flora and fauna detailed under Section 3.2 are facilitated by these soils, as are various agricultural activities. Soil type beneath the built up areas generally comprises *urban* or *man-made soils*. The majority of the Plan area is covered by *basic mineral soils* with areas of *alluvium mineral soils* existing to the north, south, east and west of the Town Centre. *Cutaway bog* is present at the boundary to the north east of the Town Centre and also to the south and south east.

Urban or *Man-made soils* are soils which have been disturbed, transported or manipulated by human activity in the urban environment and are often overlain by a non-agricultural, man-

made surface layer that has been produced by mixing, filling or by contamination of land surfaces in urban and suburban areas.

Urban soils have a combination of characteristics that differ from natural soils. These characteristics are due to alterations in both physical and chemical soil properties that cause long term deviation from the natural state.

Natural soil profiles generally tend to gradually change from one horizon to the next; however, *urban soils* show abrupt changes from one horizon to another depending on the construction history of the soil. Layers may drastically differ in structure, pH, texture, and properties important to plant growth such as aeration, drainage and water holding capacity. A soil's aeration and water drainage capabilities are negatively affected by compaction which occurs as a result of overlying conditions which include traffic and building.

Alluvium is a post-glacial deposit and may consist of gravel, sand, silt or clay in a variety of mixes and usually consists of a fairly high percentage of organic carbon (10%-30%). Alluvium is mapped only on modern day river floodplains. The alluvial deposits are usually bedded, consisting of many complex strata of waterlain material left both by the flooding of rivers over their floodplains and the meandering of rivers across their valleys.

Cutaway bog is the term used to describe the areas of peatland from which it is no longer possible to extract peat economically.

3.4.3 Geology and Sites of Geological Interest

3.4.3.1 Geology

The soils and habitats of Tullamore have been influenced by the area's underlying geology (see Figure 3.8).

The northern part of the Plan area is underlain by Visean limestones, undifferentiated. The remainder of the Plan area is made up of the Lucan Formation with small areas of the Allenwood Formation and the Waulsortian Limestone traversing the Environs boundary to the south west.

⁸ Teagasc, GSI, Forest Service & EPA (2006) *Soils and Subsoils Class* Dublin: DEHLG

3.4.3.2 Features of Geological Interest

A major feature of geological interest existing in the Plan area is eskers. Eskers were created from sands and gravels which were laid down in rivers of meltwater that covered much of Ireland at the end of the Ice Age about ten thousand years ago. Eskers support their own unique flora and fauna and also have archaeological significance, as they formed the early highways in Ireland.

There are twenty esker systems in Offaly containing 208 segments which all form part of the Esker Riada. The esker system covers over 4,000 acres in Offaly. Ballyduff Esker which runs along the northern edge of the Town's Environs is a significant part of the Esker Riada network.

3.4.4 Landfills

Two historic landfill sites have been identified in Tullamore. These sites are located in the townlands of Ballydaly and Ballydrohid, Tullamore. The locations of these sites are mapped in Figure 3.19.

Derryclure Landfill to the south of Tullamore accepts waste from the Plan area. The facility is at maximum capacity with the current capacity at the site at 40,000 tonne per annum and current demand also at 40,000 tonne per annum. Predicted future capacity is 100,000 tonne per annum. A planning application has been made to An Bord Pleanála to increase the capacity to 100,000 tonne per annum. If An Bord Pleanála does not give permission there could/will be future shortfalls.

3.4.5 Quarries

Quaternary geology comprises the study of soils which have been deposited or formed during the last 2 million years. The quaternary geology around Tullamore, including the deposits which were laid down during and after the last ice age, supports a range of quarrying activities.

Figure 3.9 shows the location of quarries close to Tullamore which have been registered in order to comply with the requirements of Section 261 of the Planning and Development Acts 2000 to 2009⁹. These quarries are located at and coincide with the section of the Esker

⁹ This does not include quarries which have recent planning permission and therefore would have been outside the registration process.

Riada to the immediate north of the Town. They consist of sand and gravel pits from which various sizes and types of sand, gravel and aggregates are being excavated

There is one quarry site within the Plan area. Two quarry sites lie to the north east of the Town. The locations of these sites are mapped in Figure 3.9.

3.4.6 Existing Problems relating to Soil

Greenfield development involves the building upon and thereby sealing off of soil thus representing an environmental problem.

Soil has the potential to be polluted and contaminated as a result of pollution from development which is not serviced by appropriate waste water infrastructure and from agricultural sources.

Soil erosion due mainly to surface erosion resulting from construction works and agricultural / forestry operations has major potential to impact on water quality and fishery resources.

The development of extractive industry at certain locations in Tullamore has led to the depletion of both subsoil and topsoil, which has been removed in order to obtain the subsoil. This depletion has impacted upon the Ballyduff esker which lies to the north of the Town and is indicated in Figure 3.28 as an "Area of High Amenity"

Decomposition of materials in the landfill sites mentioned in Section 3.4.4 may pollute and contaminate soils.

3.4.7 Evolution of Soil in the absence of the Development Plan

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

The currently proposed Soil Directive suggests encouraging the rehabilitation of brownfield sites, thus reducing the depletion of greenfield sites. However, in the absence of a Development Plan there would be no framework for the direction of growth towards brownfield

sites in Tullamore, where such direction is appropriate. As a result greenfield development would be likely to occur on an ad hoc basis - both within and outside of the Plan area - and would result in the building upon and thereby sealing off of the non-renewable subsoil and soil resources.

In the absence of a Development Plan, there would be no framework for the provision of infrastructure - such as that relating to waste water treatment - to serve existing and future development and therefore soil would have the potential to be polluted and contaminated as a result of pollution from development which is not serviced by appropriate waste water infrastructure.

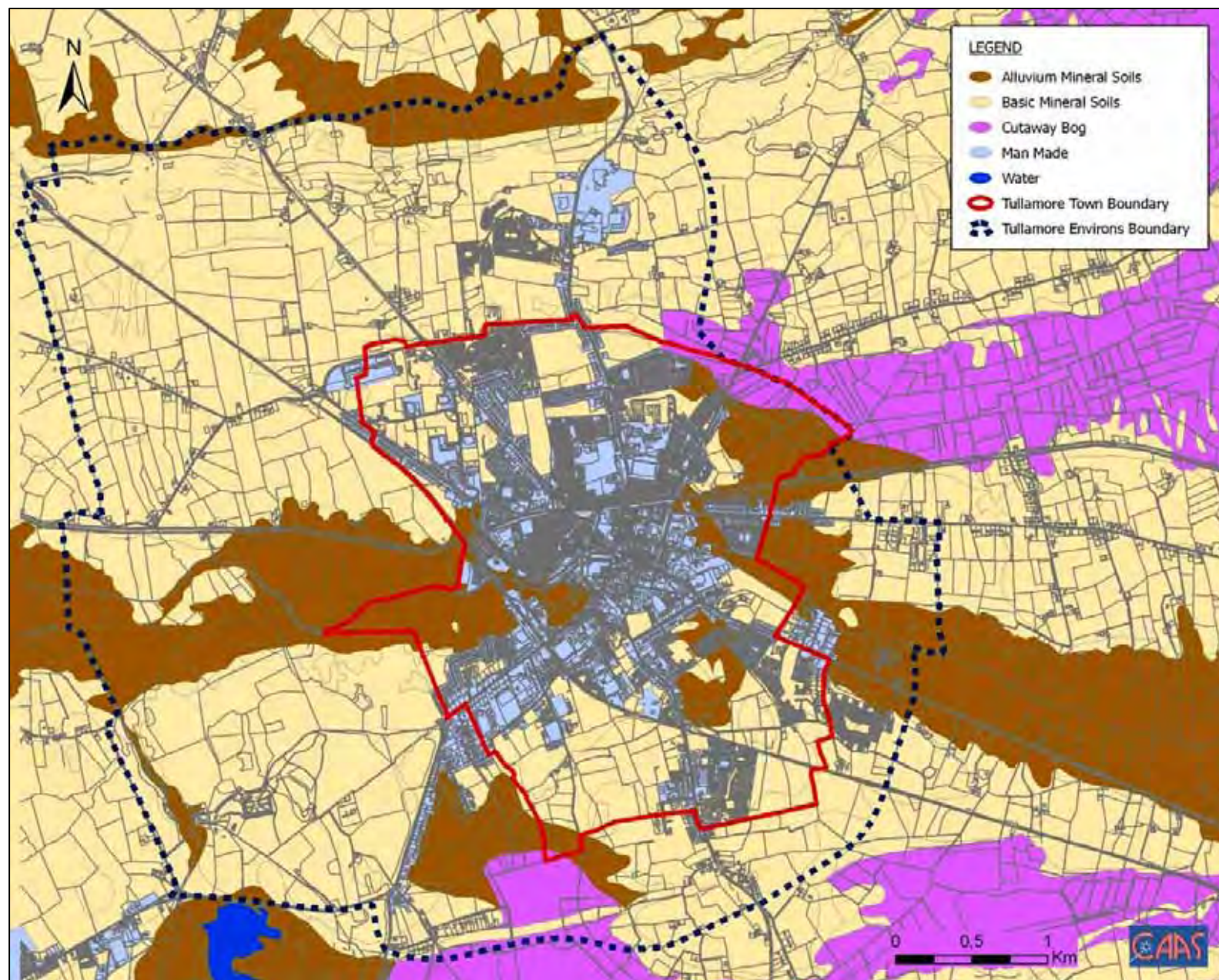


Figure 3.7 Soil Type

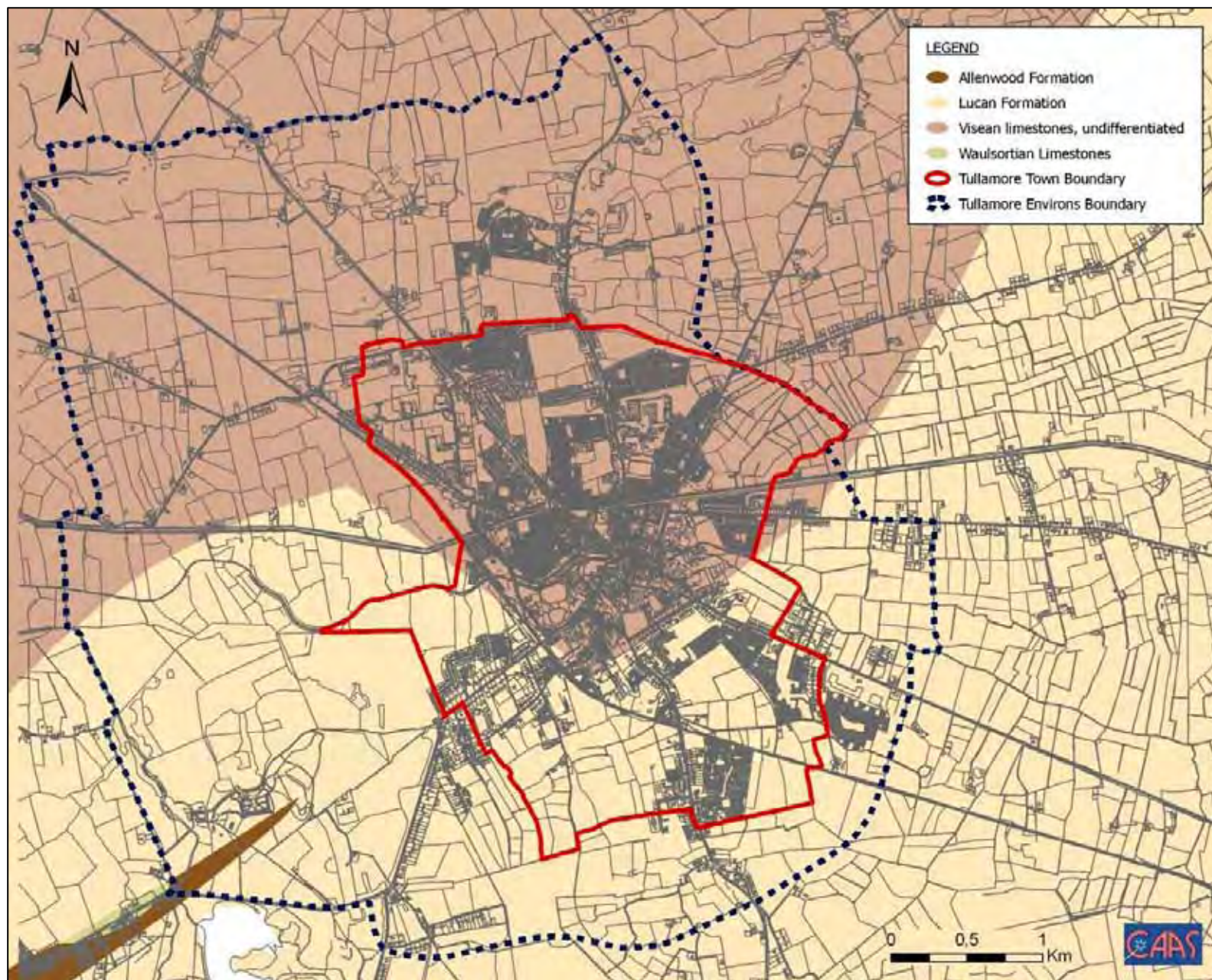


Figure 3.8 Geology

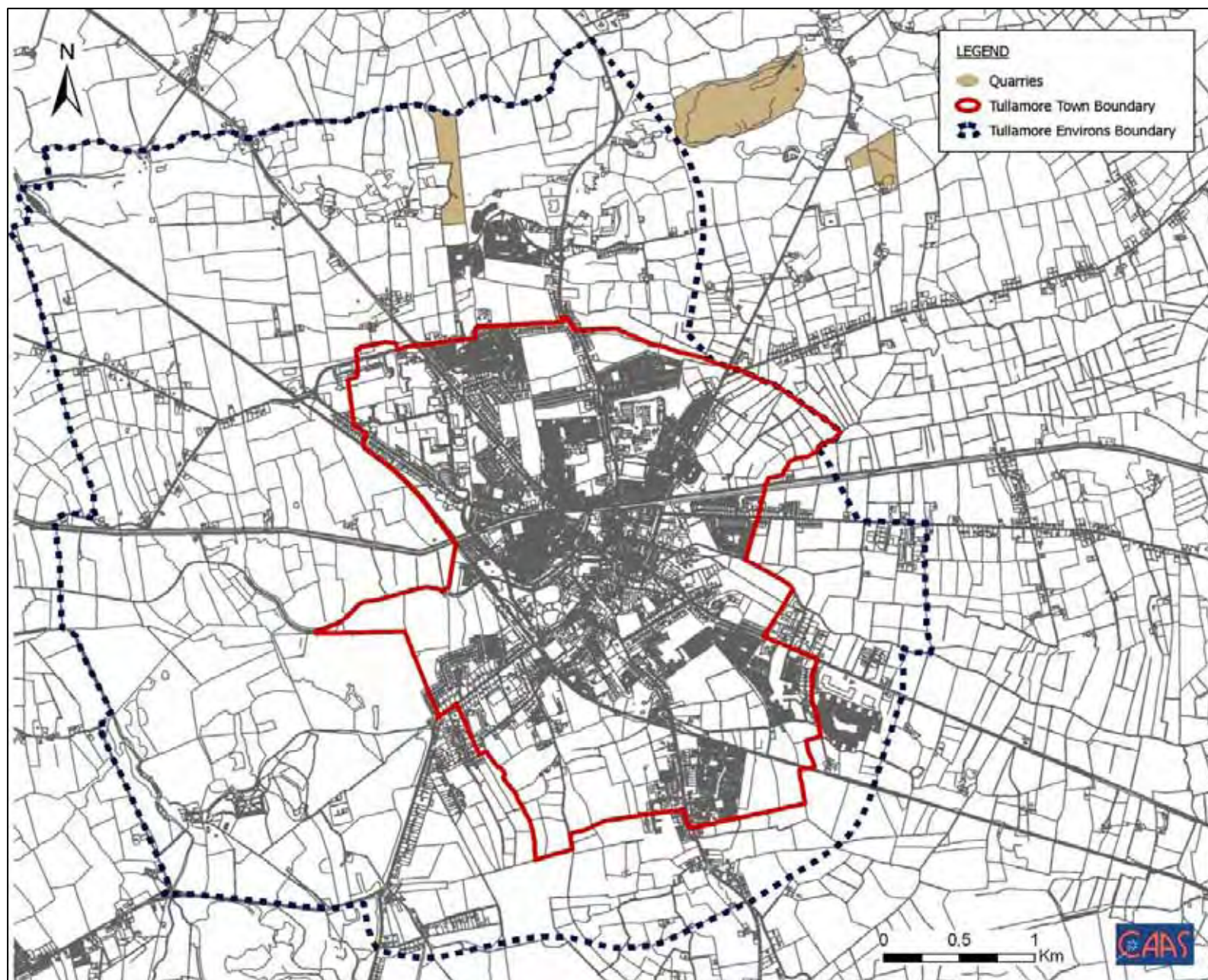


Figure 3.9 Quarries

3.5 Water

3.5.1 Introduction

Water within and surrounding Tullamore has many functions: it provides drinking water to the area's population; it sustains the biodiversity and flora and fauna described under Section 3.2; and it is an integral part of the landscape.

3.5.2 Potential Pressures on Water Quality

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

- sewage and other effluents discharged to waters from point sources, e.g. pipes from treatment plants;
- discharges arising from diffuse or dispersed activities on land;
- abstractions from waters; and
- structural alterations to water bodies.

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

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

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

Structural alterations such as river straightening; construction of embankments, weirs, dams, port facilities and dredging can create conditions such that a water body is no longer able to support the natural ecology which would have

existed prior to such modifications. These pressures are also referred to as morphological pressures.

3.5.3 The Water Framework Directive

3.5.3.1 Introduction and Requirements

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

3.5.3.2 River Basin Districts and Water Bodies

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

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

3.5.3.3 WFD Risk Assessments

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

- to assess the risk that water bodies may not achieve good quality status;
- to identify the pressures from human activities causing this risk; and,
- to develop strategies and management plans to minimise the risk.

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

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

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

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

3.5.3.4 WFD Registers of Protected Areas

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

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

areas; Special Areas of Conservation (SACs); and, Special Protection Areas (SPAs).

In Ireland, waters intended for human consumption are protected under the Drinking Water Regulations (S.I. 439/2000). The actual protected areas for drinking water are not outlined within these Regulations, so the protected area for drinking waters is represented by the water body from which the water is abstracted, be it groundwater, river or lake. In the Plan area, the Tullamore River has been identified on the WFD RPA for Drinking Water. All groundwater underlying the Plan area is listed on the RPA for Drinking Water.

The RPA for Water Dependent Habitats includes habitats that are dependent on water: this includes areas already listed by the National Parks and Wildlife Service as Special Areas of Conservation. Waters at Charleville Wood cSAC are listed on the RPA for Water Dependent Habitats.

Nutrient Sensitive waters include nitrate vulnerable zones and areas designated as sensitive areas under the Urban Waste Water Treatment Directive (91/271/EEC). The water bodies shown are those lakes and estuarine/coastal waters listed in Ireland's Urban Waste Water Treatment Regulations (S.I. 254/2001). The WFD Code links them to the overall GIS Water body Map used for the Water Framework Directive. As a Nitrates Action Program has been established, and applies to the whole of the Republic of Ireland, no Nitrate Vulnerable Zones have been designated. The Tullamore River is listed on the RPA for Nutrient Sensitive Rivers.

The waters listed on the RPA are mapped in Figure 3.17.

3.5.3.5 River Basin Management Plan

Local Authorities located in the SIRBD, have prepared a draft River Basin Management Plan which will be implemented in order to help protect and improve waters in the RBD. This draft Plan was published in December 2008 and a period of public consultation is taking place until 22 June 2009. Public comment will be taken into consideration in preparing the final River Basin Management Plan, which was due for publication by 22 December 2009. The Management Plan will provide specific policies for individual river basins in order to implement the requirements of the WFD.

3.5.4 Surface Water

3.5.4.1 Introduction

The main rivers within and surrounding the Plan area are the Tullamore River, the Clodiagh River and the Silver River. These rivers are mapped in Figure 3.11.

The Tullamore River rises to the east of Tullamore near Ballinagar. It flows to the west, with a number of smaller tributaries joining along the way, the largest being the Toberfin River and the Ballycommon River. It flows through Tullamore Town and meets with the Clodiagh near Rahan before flowing to the north west, joining with the Silver River, then the Derrycooley Stream and flowing on to its confluence with the Brosna some 10km downstream and discharging into the Shannon at Shannon Harbour.

The Silver River rises to the north east of Tullamore Town near Lacken Hill and flows to the south west until it meets with the Tullamore River.

The Clodiagh River rises near the Slieve Bloom Mountains, south of Tullamore Town and flows to the north until its confluence with the Tullamore River.

The Grand Canal, a man-made waterway linking the River Liffey at Dublin to the River Shannon at Shannon Harbour in the west of County Offaly cuts through the northern part of the Town in an east-west direction.

There is a small lake in the grounds of Charleville Demesne, adjacent to the Clodiagh River.

3.5.4.2 EPA Monitoring

Water quality on the Tullamore River is monitored by the EPA at Springfield Bridge to the east of the Town. Current water quality status at the bridge is Moderate Status (Q3-4).

The EPA also monitors water quality approximately three kilometres to the west of Tullamore at Annamore Bridge. The most recent water quality data¹⁰ identifies the Tullamore

River as being of Bad Status (Q2)¹¹ at this point after it flows through the Town.

The EPA's River Water Quality Report¹² indicates that sewage from Geashill and Tullamore is suspected as the most likely cause of the unsatisfactory condition of the Tullamore River in 2005. Some sensitive species were observed at Springfield Bridge though the abnormally abundant crops of water weed and algae plus heavy siltation indicated significant eutrophication at that location: dissolved oxygen (DO)¹³ was reduced to just 59% at the time of the survey. Downstream of the Town the river was again seriously polluted at Ballycowan where DO was reduced to just 35 per cent of saturation.

The Clodiagh River is monitored by the EPA approximately three kilometres to the west of Tullamore at a bridge south west of Ballycowan Bridge. The most recent water quality data¹⁴ identifies the river as being of Moderate Status (Q3-4) at this point.

The EPA's River Water Quality Report indicated that the Clodiagh River continued to be of a highly satisfactory quality standard in its upper reaches in August 2005 but, as in previous years, it then deteriorated under the influence of suspected water treatment discharges in Clonaslee and by a combination of those and suspected sewage effluents below Tullamore Town.

3.5.4.3 Risk Assessment

Figure 3.12 maps the current risk assessments for the catchments which drain in to the Tullamore, Silver and Clodiagh Rivers. Figure

¹¹ The Biotic Index Values, or Q values, are assigned to rivers in accordance with biological monitoring of surface waters - low Q ratings, as low as Q1, are indicative of low biodiversity and polluted waters, and high Q ratings, as high as Q5, are indicative of high biodiversity and unpolluted waters. Good status as defined by the Water Framework Directive equates to approximately Q4 in the national scheme of biological classification of rivers as set out by the EPA.

¹² Environmental Protection Agency (2005) *River Water Quality Report 2005* Wexford: Environmental Protection Agency

¹³ Dissolved Oxygen (DO) is a measure of the concentration of oxygen in a liquid, such as water or wastewater, usually expressed in mg/l or per cent saturation

¹⁴ Environmental Protection Agency (2006) *Water Quality in Ireland 2005* Wexford: Environmental Protection Agency

¹⁰ Environmental Protection Agency (2006) *Water Quality in Ireland 2005* Wexford: Environmental Protection Agency

3.13 maps risk assessments for rivers in the Plan area.

In terms of achieving the WFD's objectives by 2015, all surface waters in the Plan area are classified as being *(1a) At Significant Risk* with catchment areas to the east and south of the Town identified as *(1b) Probably at Significant Risk* of failing to achieve the WFD's objectives by 2015.

The Ballycommon River is classified as *(1b) Probably at Significant Risk* up to the Environs boundary where it then changes to being *1a At Significant Risk*.

The Silver River, Clodiagh River and Tullamore River are mainly classified as being *1a At Significant Risk*.

Reasons for these classifications are listed below:

Tullamore River, upper:

Abstraction: River water balance
Diffuse: EPA diffuse sources model
Un-sewered areas
Morphology: Channelisation
Point Source: Water treatment plants and other pressures

Tullamore River, lower:

Abstraction: River water balance
Diffuse: EPA diffuse sources model
Agricultural sources - arable
Un-sewered areas
Morphology: Channelisation
Intensive landuse
Point Source: Combined sewer and treatment plant overflows

Ballycommon River:

Diffuse: EPA diffuse sources model
Morphology: Channelisation

Silver River:

Diffuse: EPA diffuse sources model
Agricultural sources - arable
Un-sewered areas
Morphology: Channelisation
Point Source: Water treatment plants and other pressures

Clodiagh River:

Abstraction: River water balance
Diffuse: EPA diffuse sources model
Agricultural sources - arable

Un-sewered areas
Morphology: Channelisation
Embankments
Point Source: Waste water treatment plants

It is noted that as the Grand Canal is an Artificial Water Body, it was not included in the Risk Assessments. The approach to be taken with regard to the risk assessment and management of Artificial Water Bodies in the context of the WFD is currently being developed by both the EPA and Waterways Ireland.

3.5.4.4 Lakes

Charleville Lake is a small lake in the grounds of Charleville Demesne, adjacent to the Clodiagh River. It is neither monitored by the EPA nor classified by the Risk Assessments of the SRBD.

3.5.5 Groundwater

3.5.5.1 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.

The bulk of water supplies in County Offaly are derived from ground water reserves consequently particular attention must be paid to their protection from contamination. At present, there are five boreholes at Clonaslee, two boreholes at Arden and Sillogue well at Durrow from which groundwater is extracted for the Tullamore Water Supply. These abstraction points can be seen in Figure 3.22 and more information is contained in Section 3.7.2.

3.5.5.2 WFD Risk Assessment of Groundwater

Figure 3.14 maps the current risk assessment for groundwater in the Tullamore area. Groundwater underlying Tullamore Town is generally classified as being *(1b) Probably at Significant Risk*. Groundwater underlying the Environs is generally classified as being *(2b) Probably not at Significant Risk*.

Reasons for these classifications include:

Groundwater to the south, south east and east of the Town:

Diffuse: Mobile chemicals
Mobile chemicals
Mobile nutrients (NO₃)

Groundwater underlying the urban area:

Abstraction: Groundwater balance
Diffuse: Mobile chemicals
Clustered onsite systems & leaking urban sewerage systems¹⁵
DWPA Diffuse Mobile chemicals
GWDW Abstraction Water balance
GWDW Diffuse Mobile chemicals
Clustered onsite systems & leaking urban sewerage systems (NO₃)
Clustered onsite systems & leaking urban sewerage systems (PO₄)
Mobile nutrients (NO₃)
Point Source: Contaminated land.

¹⁵ On a national scale, leaking sewer systems are regarded as having the highest impact potential on the basis of their geographic spread, however, whether or not they leak depends on a variety of site-specific factors which are difficult to map and quantify. Urban pressures are location-specific, depending on such factors as land use patterns, degree and nature of industrial activity, sewer systems, and local hydrogeology. Urban pressure types generally fall into just a few categories: industrial manufacture, waste disposal, transport activities, road and building runoff, amenity land uses, and sewerage. Groundwater quality in urban settings may be impacted by multiple sources - both diffuse and point -, and fingerprinting specific pollutants to specific sources is very difficult. Urban groundwater pollution sources and pathways are complex, and sources of pollution are difficult to control. Because of the complexities involved, urban groundwater pollution is considered to be a significant water management issue on a national scale as: Irish towns are growing rapidly; and, the financial costs of returning affected groundwater bodies to WFD status objectives will likely be significant, requiring extensive monitoring and management measures. The EPA is currently undertaking an urban pressure assessment on groundwater. When completed, this assessment will be used by the EPA to define a national network of monitoring wells in urban areas that will provide additional information on groundwater within urban areas.

Groundwater underlying the north, north-west and west of the Town:

Abstraction: Groundwater balance
Diffuse: Mobile chemicals
DWPA Diffuse Mobile chemicals
GWDW Abstraction Water balance
GWDW Diffuse Mobile chemicals
Mobile nutrients (NO₃)

3.5.5.3 Groundwater Vulnerability

The Geological Survey of Ireland (GSI) rates aquifers according to their vulnerability to pollution. Aquifer vulnerability refers to the ease with which pollutants of various kinds can enter underground water.

Figure 3.15 shows that the Plan area is mainly rated as being of high vulnerability with approximately ten patches classed as extreme vulnerability. There is a large area to the north west of the Town which is classified as being of extreme vulnerability.

The current Offaly County Development Plan 2009 - 2015, identifies Aquifer Protection Zones for both public and private water schemes, enabling the application of restrictive policy to these sensitive zones. There is one Aquifer Protection Zone within the Town and Environs area and the Plan includes a measure to strictly control new development within this area.

3.5.5.4 Groundwater Productivity

The GSI rates aquifers based on the hydrogeological characteristics and on the value of the groundwater resource. Ireland's entire land surface is divided into nine aquifer categories.

The Plan area is divided into two main classifications as seen in Figure 3.16. Areas of the central, north, north west and west of the Plan area are underlain by a fissured bedrock aquifer. This is a type of aquifer in which the network of fractures, fissures and joints, through which groundwater flows, is well connected and widely dispersed, resulting in a relatively even distribution of highly permeable zones. There is good aquifer storage and groundwater flow paths can be up to several kilometres in length. There is likely to be substantial groundwater discharge to surface waters ('baseflow') and large (>2000 m³/d),

dependable springs may be associated with these aquifers.¹⁶

The remainder of the Plan area is underlain by a locally important sand/gravel aquifer. This aquifer is capable of yielding enough water to boreholes or springs to supply domestic, commercial and industrial uses, depending on the nature and scale of the development.

3.5.6 Flooding

3.5.6.1 Introduction

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

Tullamore is vulnerable to adverse effects from changes in the occurrence of severe rainfall events and associated flooding of the area's rivers.

Much of the flooding in Tullamore occurs during adverse weather conditions whereby heavy rainfall causes high river flows. Local conditions such as low-lying lands and inadequate surface water drainage can also increase the risk of flooding.

The risk of flooding has been increased in the past by human actions including the clearing of vegetation to make way for agriculture, draining of bog and wetland areas and the development of settlements in the flood plains of rivers. The flood plain of the Tullamore River is subject to flooding as shown in Figure 3.18 below¹⁷.

Infrastructural development, culverting and forestry operations and all urban development in the floodplain present ongoing flooding hazards. Increased surface water runoff due to construction of new hard surfaced areas is now generally not a problem in terms of its impact on peak flows because of the implementation of Sustainable Urban Drainage Systems (SUDS).

3.5.6.2 OPW's National Flood Hazard Mapping

The locations of the most significant recent flooding events in the Plan area - accessible

from the Office of Public Works National Flood Hazard Mapping website - are identified in Figure 3.18 and listed on Table 3.2 below.

3.5.6.3 Tullamore Flood Risk Assessment and Management Study¹⁸

The Tullamore Flood Risk Assessment and Management (FRAM) Study was carried out by the OPW, in conjunction with Tullamore Town Council and Offaly County Council in 2008. The study identifies areas of Tullamore that are at risk of flooding and contains a series of options to mitigate the existing flood risk in Tullamore. The OPW has divided its recommendations into how to deal with the existing risk and how to deal with the potential future risk should development take place within the floodplain of the Tullamore River. Areas identified in the report as being liable to flooding are mapped in Figure 3.10.

3.5.6.4 Flood Risk Management Guidelines

In November 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 or varying development plans and local area plans and in consideration of applications for planning permission.

Regard to these Guidelines has been had when drawing up the mitigation measures included in Section 9.

¹⁶ Geological Survey of Ireland (2009)

¹⁷ This map shows a 1% Annual Exceedance Probability (AEP) flood event. Data source: OPW, 2008.

¹⁸ Tullamore Flood Risk and Assessment Management Study (OPW), 2008

Areas affected	Description
Charleville Road	Low lying land floods every year after heavy rain. The road is liable to flood after very heavy rainfall.
Spollanstown Lane	Low lying area floods every year after heavy rain. The surface water drainage is inadequate and the road is liable to flood.
Cloncollog	Tullamore river overflows after heavy rain every year. Significant flood plain of river.
Bogtown	Flood Plain of Tullamore River. After very heavy rainfall properties are affected and the road is liable to flood.
Kilcruttin	Tullamore river overflows after heavy rain every year.
Main Street, Tullamore	Tullamore river overflows after heavy rain every year. Road is liable to flood.
Tullamore opposite Glennon's Joinery	Low lying area floods every year after heavy rain. The road is liable to flood.
Ballydaly	Low lying land floods after heavy rain every year. The road does not flood.
Silver Gormagh	Silver River overflows after heavy rain every year. Significant flood plain of river.

Table 3.2 List of flood events (Source: Office of Public Works)

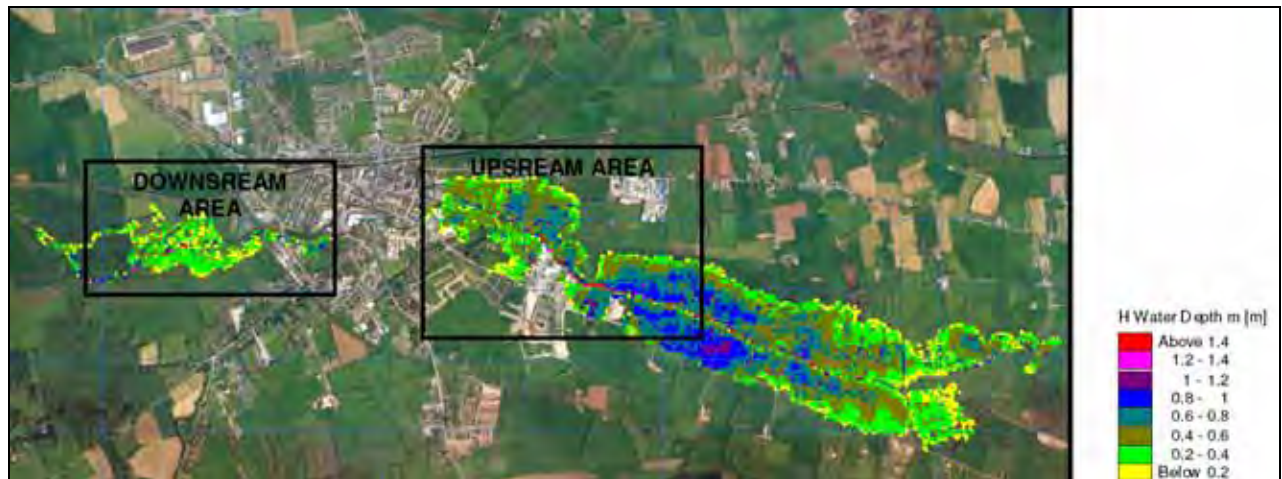


Figure 3.10 Areas liable to flooding

3.5.7 Existing Problems

There are environmental problems in Tullamore with regard to water quality which have the potential for significant adverse impact upon human health, drinking water supplies and biodiversity and flora and fauna. Water quality of the Tullamore River is of Moderate Status (Q3-4) at Springfield Bridge before entering the Town and of Bad Status (Q2) at Annamore Bridge.

The Silver River, Clodiagh River, Ballycommon River and Tullamore River are mainly classified as being *(1a) At Significant Risk* and ground waters underlying the urban area are probably at significant risk of failing to achieve the WFD's objectives of good status by 2015.

The pressures which have been identified by the SIRBD in the characterisation of the water bodies within and surrounding the Plan area include:

- Diffuse source pressures such as the EPA's diffuse sources model and unsewered areas;
- Abstraction pressures including river water balance and groundwater balance;
- Morphological pressures including channelisation, and intensive landuse; and,
- Point sources such as combined sewer and treatment plant overflows and waste water treatment plants.

The above descriptions identify a number of sensitivities with regard to the status of water bodies within the Tullamore Plan area. By virtue of how they are used by people and by wildlife, listed on the Registers of Protected Areas under the Water Framework Directive.

In addition to the sensitivities indicated by these risk assessments, the Tullamore River, all underlying groundwater and waters in the SAC are included on various Registers of Protected Areas (RPAs) by virtue of how their waters are used by people and by wildlife.

Failure to provide appropriate waste water treatment infrastructure and capacity alongside development (see Section 3.7) presents a significant problem which is likely to affect Tullamore Town Council's and Offaly County Council's abilities to meet their commitments under the WFD. Additional waste water treatment infrastructure/capacity is needed in order to serve existing and proposed development if the objectives of the WFD are to be met.

The occurrence of severe rainfall events - and changes in the occurrence and magnitude of these events as a result of climate change - have the potential to cause flooding which would be likely to result in a hazard to human health and damage and loss to built development, infrastructure and biodiversity. This is particularly true of the large areas of land which have been identified as being liable to

flooding by the Tullamore Flood Risk and Assessment Management Study.

3.5.8 Evolution of Water in the absence of a Development Plan

Based on the current risk assessments the identified surface and ground water bodies are either at significant risk or probably at significant risk of failing to meet the objectives of the Water Framework Directive by 2015.

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

- Certain river and ground water bodies would fail to meet the objectives of the WFD by 2015; and,
- Significant adverse impacts upon the biodiversity and flora and fauna of the Tullamore area could potentially arise.

The replacing of semi-natural land cover types with artificial, more impervious surfaces is likely to lead to cumulative increases in run-off and peak flow conditions in the area's river bodies. These cumulative increases have the potential to - especially in combination with the occurrence of severe rainfall events - result in flooding.

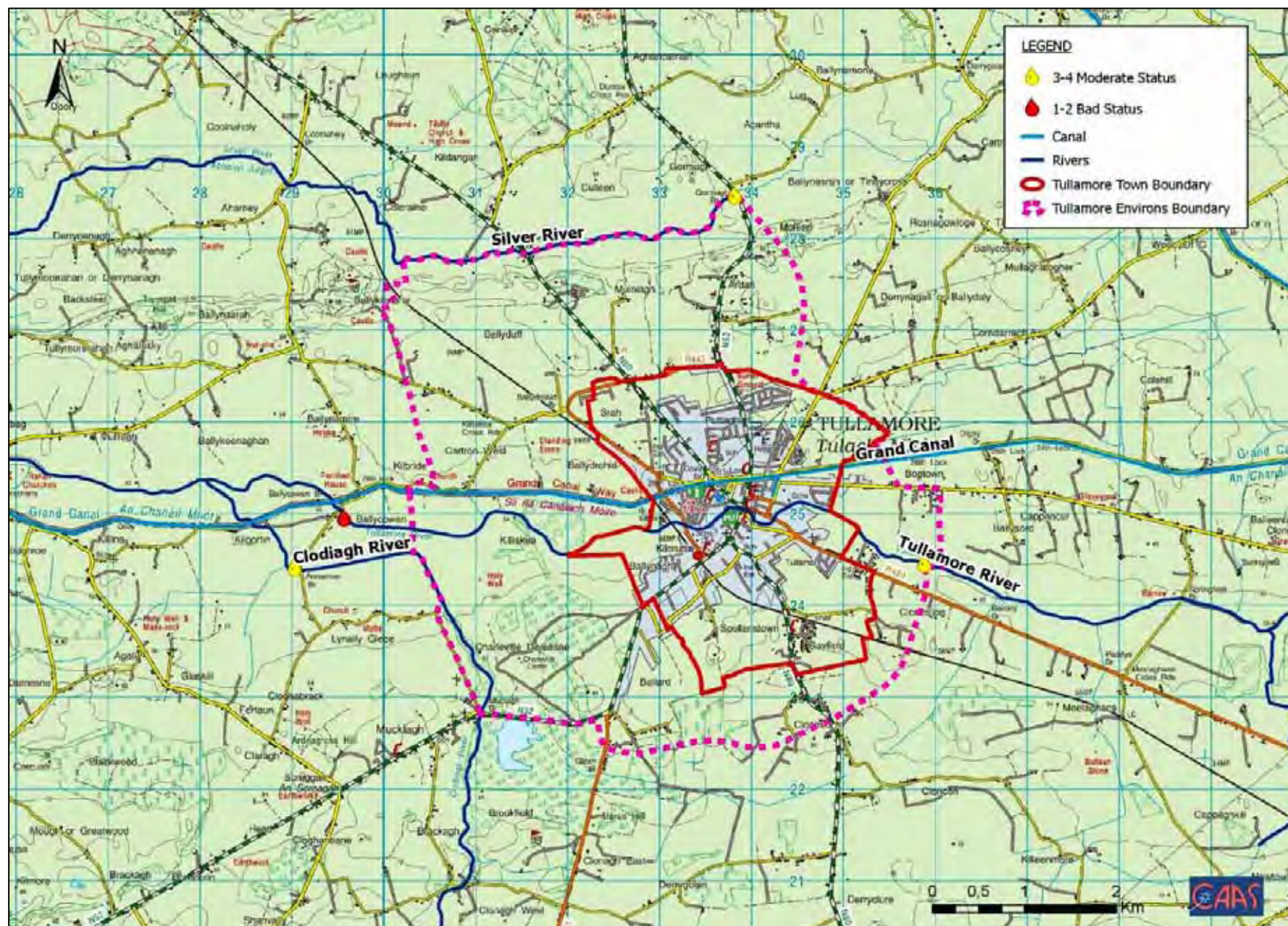


Figure 3.11 Q-Values (Biotic Index Ratings) at Points on Rivers

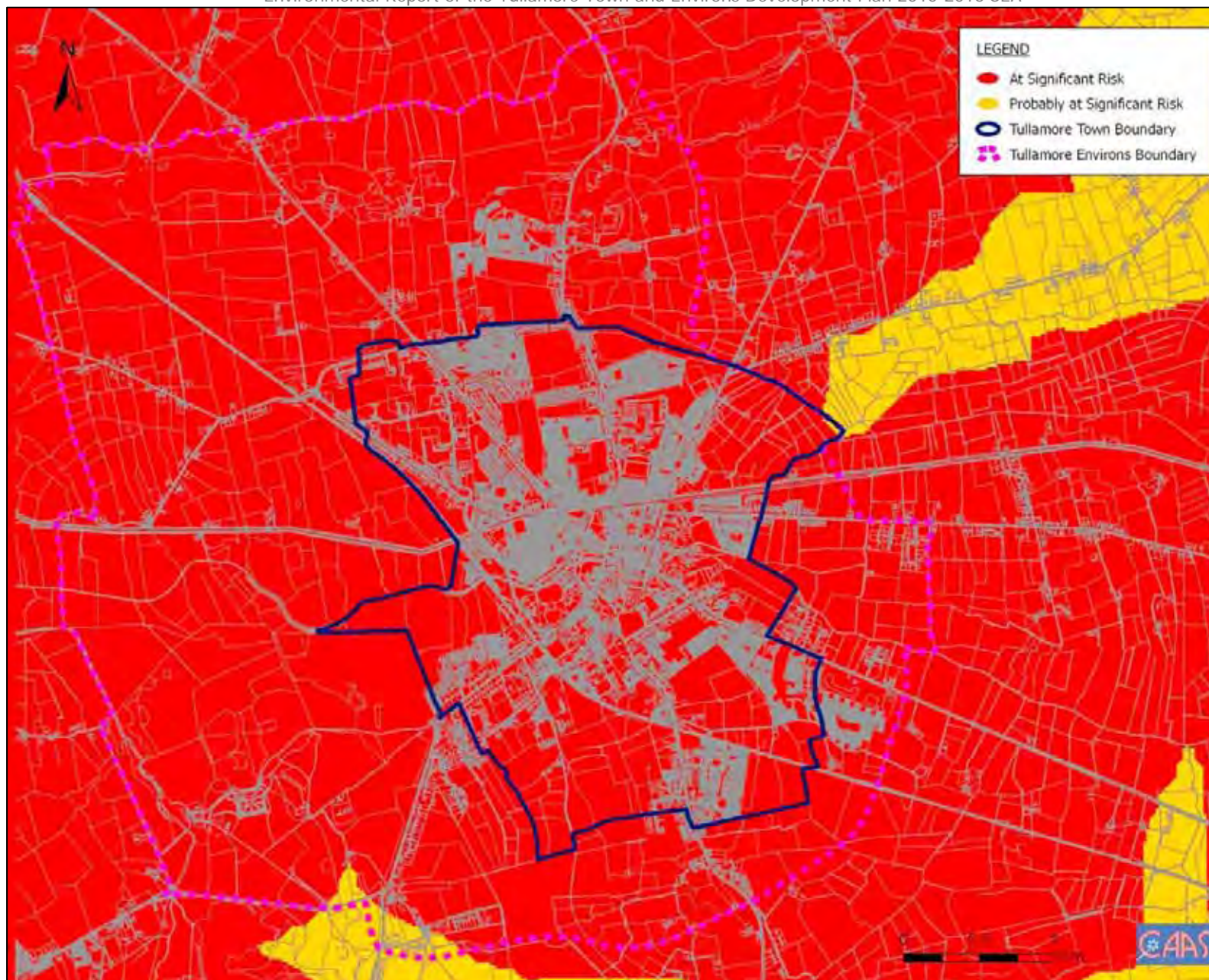


Figure 3.12 Risk Assessment of Surface Waters

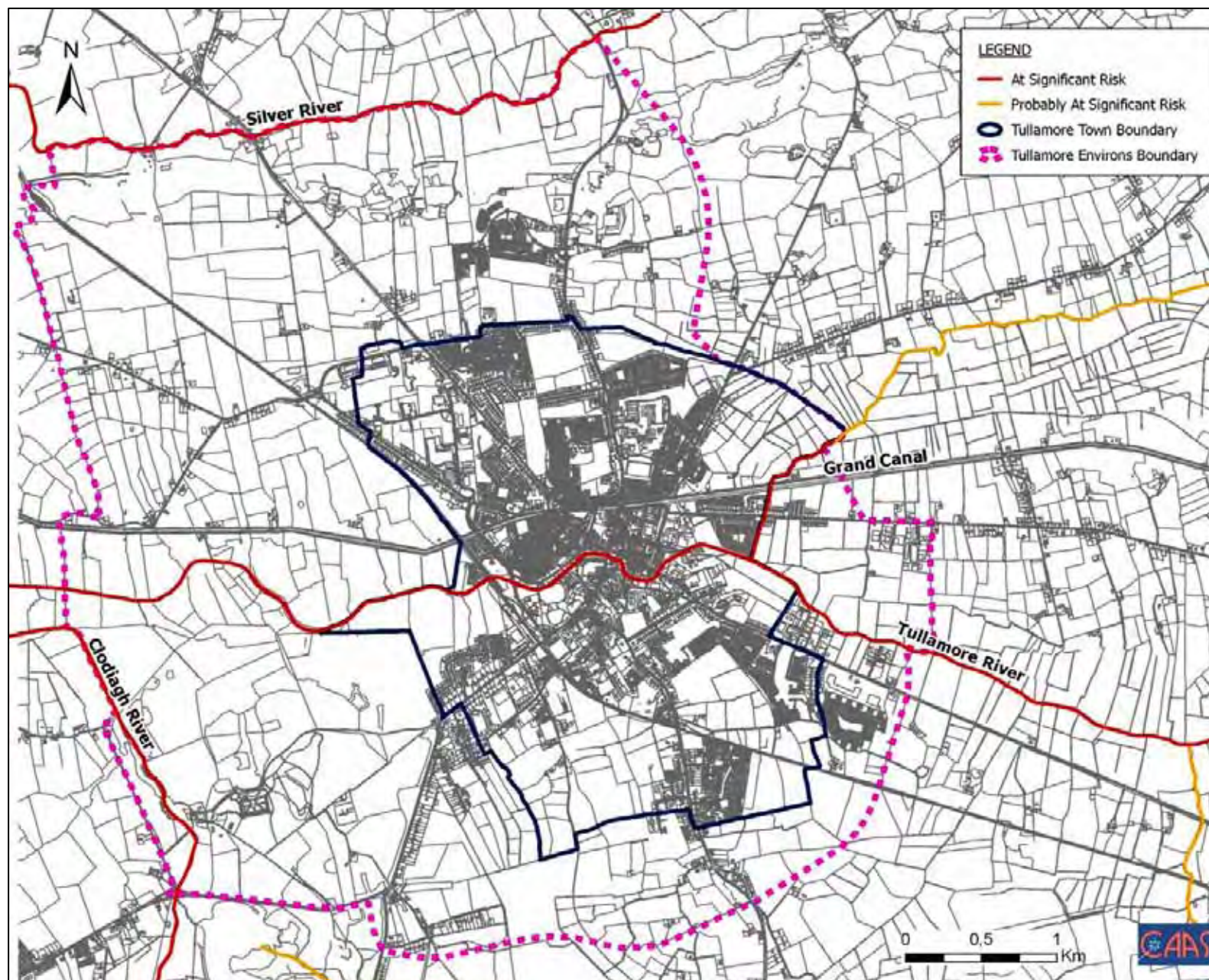


Figure 3.13 WFD Risk Assessment of Rivers

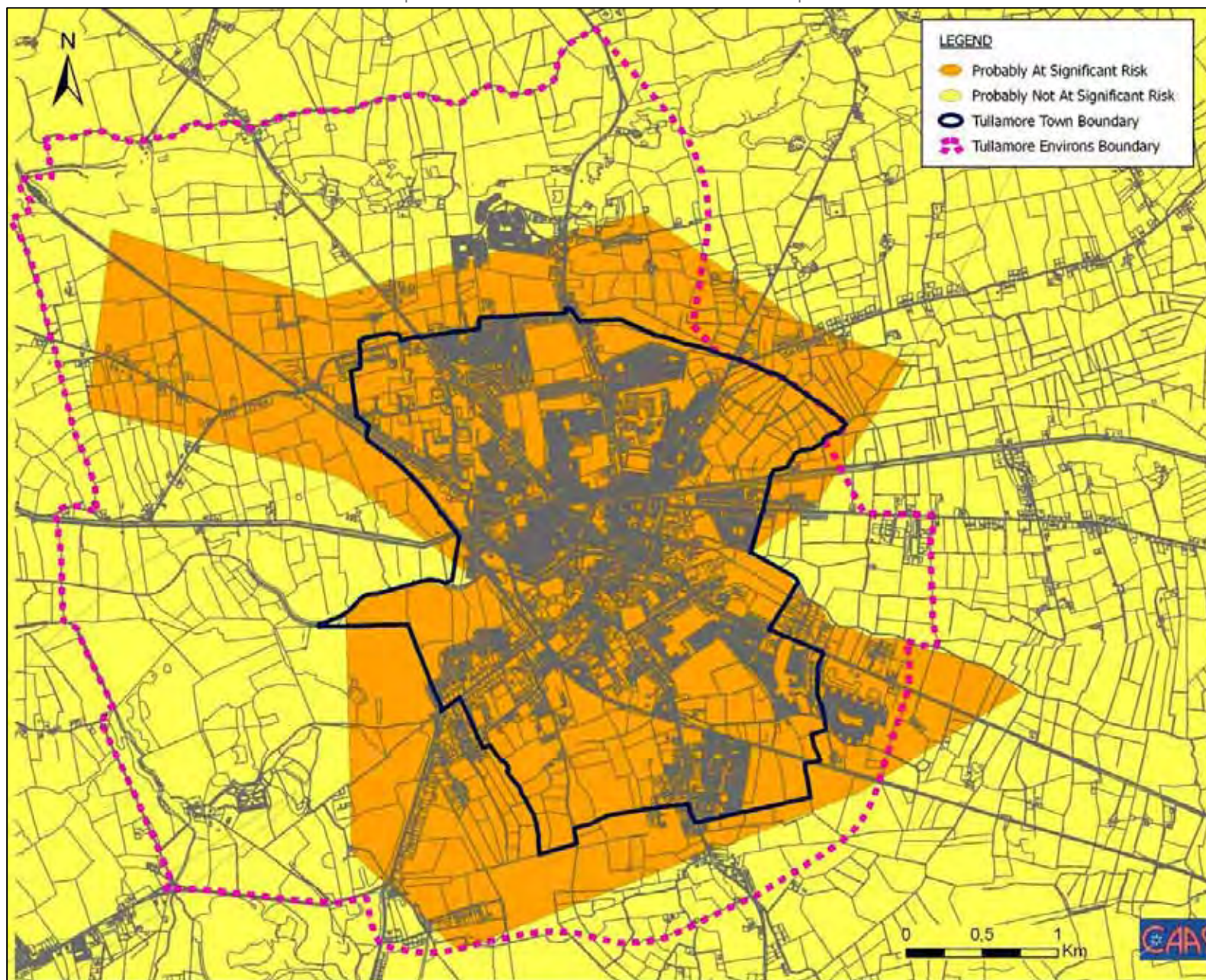


Figure 3.14 WFD Risk Assessment of Ground Waters

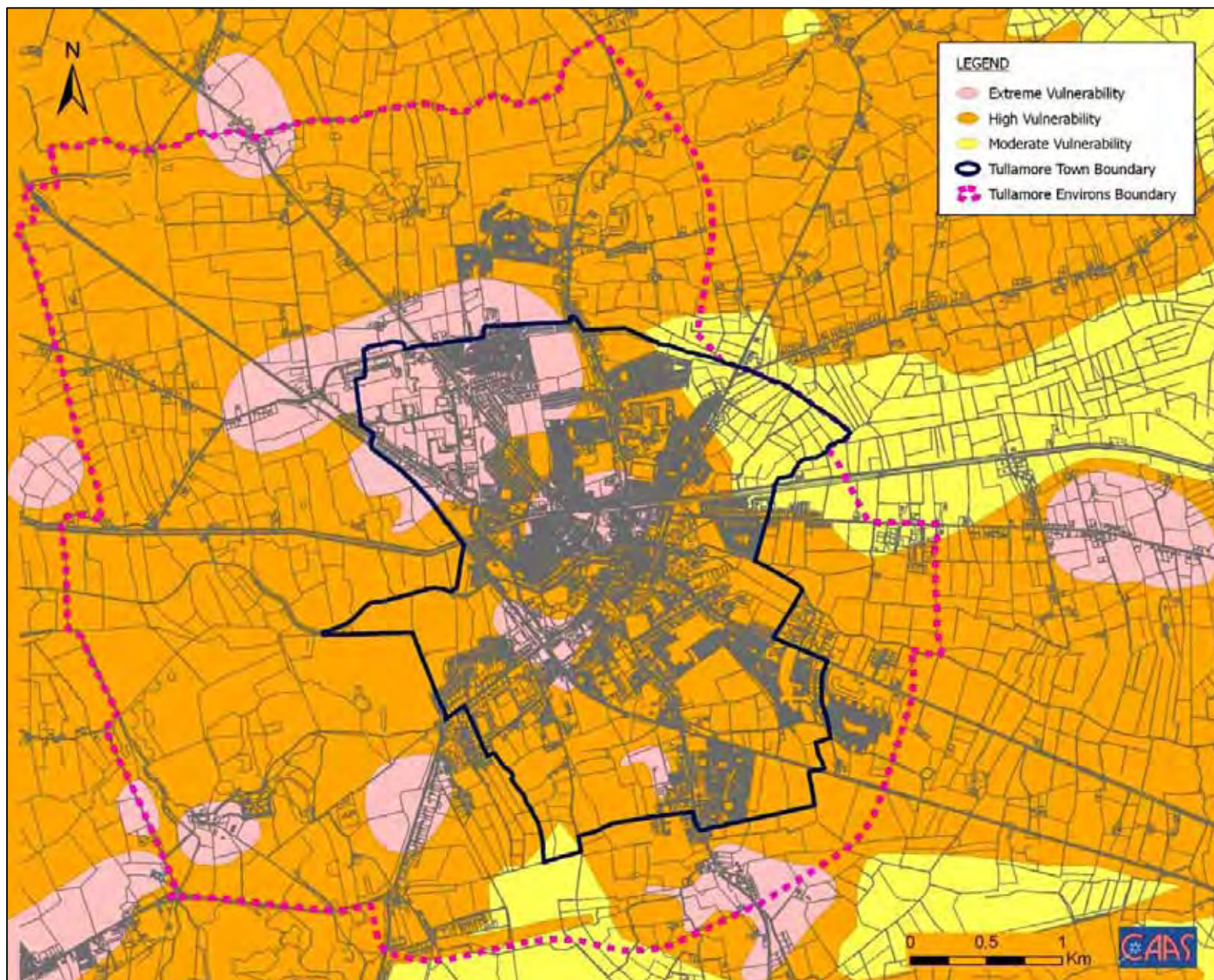


Figure 3.15 GSI Groundwater Vulnerability

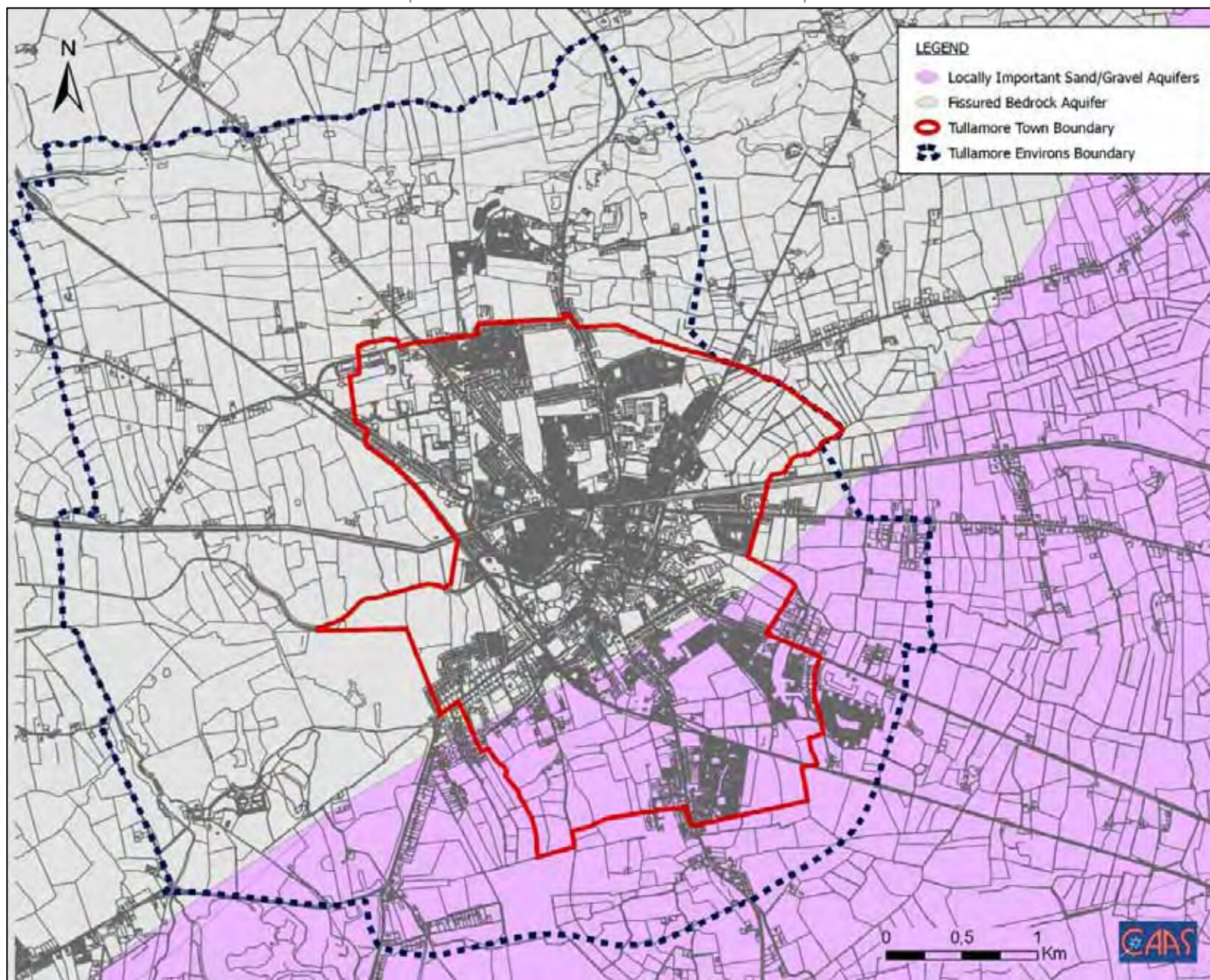


Figure 3.16 GSI Groundwater Productivity

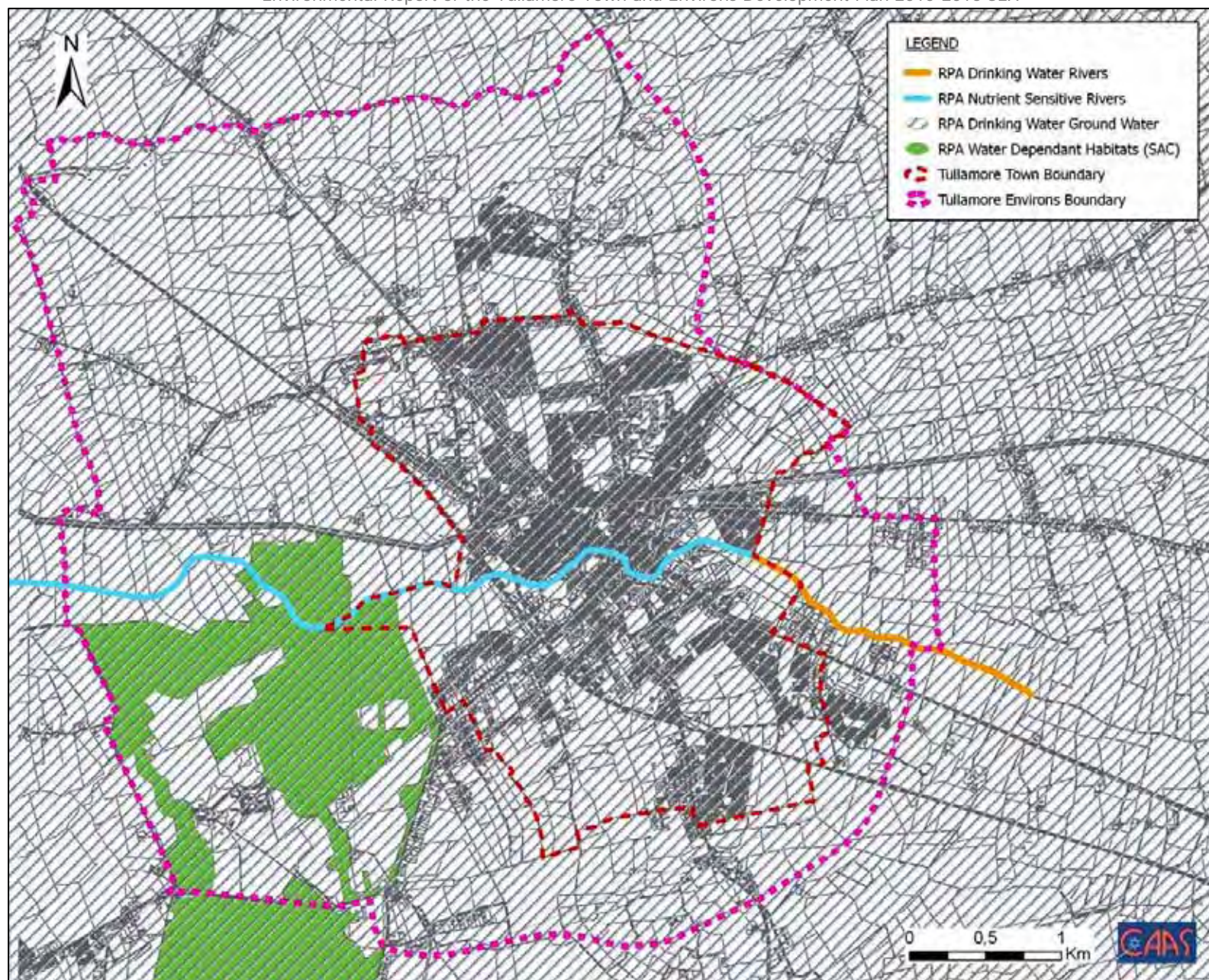


Figure 3.17 WFD Register of Protected Areas

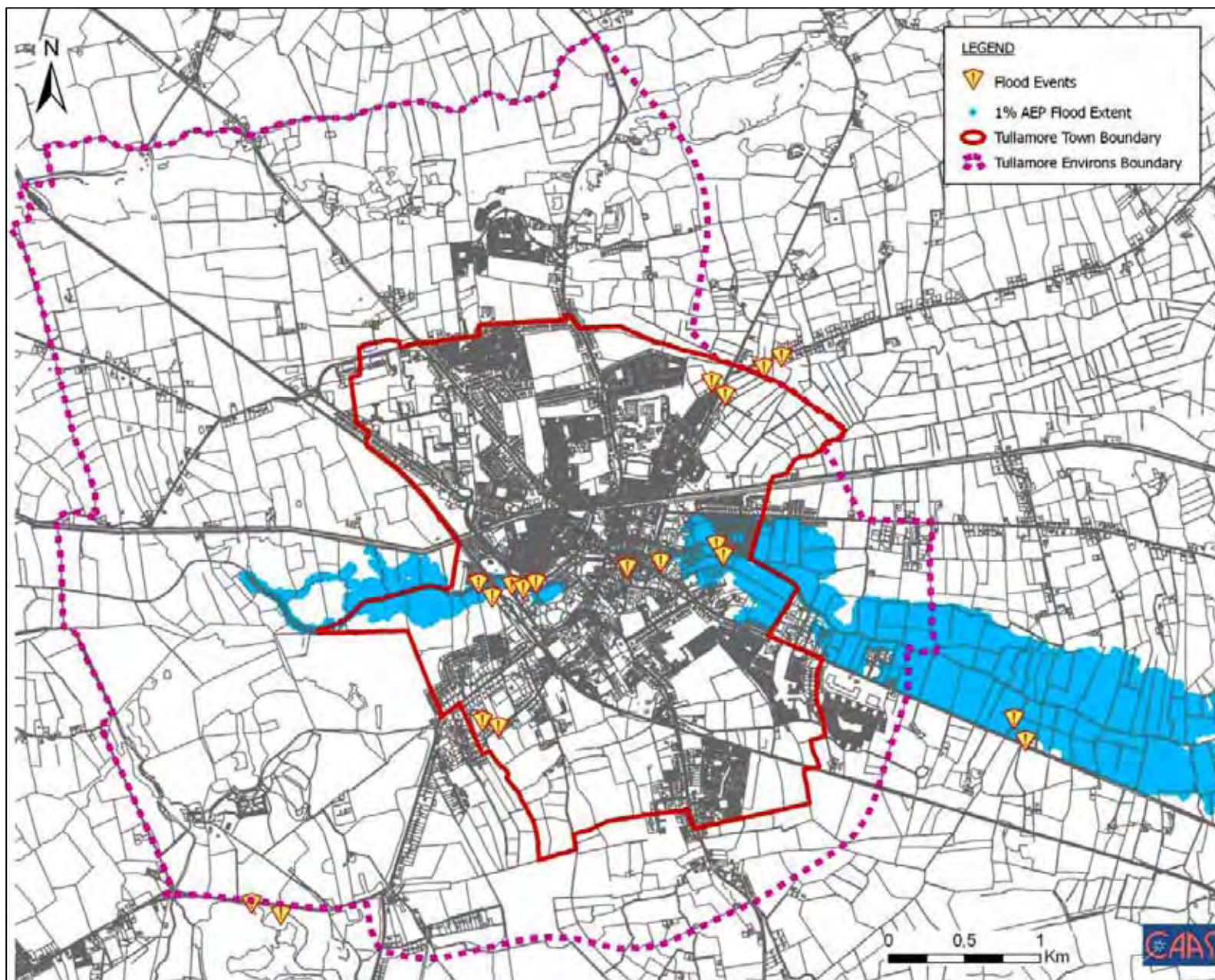


Figure 3.18 Flood events

CAAS for Tullamore Town Council and Offaly County Council

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

3.6 Air and Climatic Factors

3.6.1 Ambient Air Quality

3.6.1.1 Introduction and Legislation

In order to protect human health, vegetation and ecosystems, EU Directives set down air quality standards in Ireland and the other Member States for a wide variety of pollutants. 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 area's 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 polyaromatic hydrocarbons, arsenic, nickel, cadmium and mercury in ambient air.

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

- Zone A: Dublin Conurbation.
- Zone B: Cork Conurbation.
- Zone C: Other cities and large towns comprising Galway, Limerick, Waterford, Clonmel, Kilkenny, Sligo, Drogheda, Wexford, Athlone, Ennis, Tullamore, Naas, Carlow, Tralee and Dundalk.
- Zone D: Rural Ireland, i.e. the remainder of the State - small towns

Tullamore falls into zone D. Current air quality in Zone C is *good*. The index is calculated based on the latest available measurements of PM10, sulphur dioxide, nitrogen dioxide and ozone in Zone C.

3.6.1.2 Monitoring Sites

There are no current air quality monitoring sites in Tullamore or in County Offaly. Air quality monitoring was carried out at Ferbane from October 2006 to March 2007. Monitoring was done by a mobile unit containing continuous monitors for sulphur dioxide, nitrogen oxides, carbon monoxide and PM10. Metals in air were also measured. The lower assessment threshold for the protection of human health was exceeded on one occasion during the six month assessment period. However, eighteen exceedences in a calendar year are permitted before the threshold is deemed to be exceeded. Ferbane is thus classified as below the lower assessment threshold for the protection of human health. Similarly, the lower assessment threshold for the protection of ecosystems was not exceeded. Oxides of nitrogen levels were slightly higher at the council yard site compared to the sewerage works site.

3.6.2 Potential Point Sources of Emissions

3.6.2.1 IPPC Licensed Facilities

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

IPPC licences aim to prevent or reduce emissions to air, water and land, reduce waste and use energy/resources efficiently. An IPPC license is a single integrated license which covers all emissions from the facility and its environmental management. All related operations that the license holder carries in

connection with the activity are controlled by this license. Before a license is granted, the EPA must be satisfied that emissions from the activity do not cause a significant adverse environmental impact.

There are two IPPC licensed facilities in the Plan area.

GeneMedix PLC (Registration Number: P0638-01) is located in the Srah Industrial Estate. It is licensed for the manufacture of pesticides, pharmaceutical or veterinary products and their intermediates.

Castle Paints (Tullamore) Limited (Registration Number: P0833-01) is located in the Cloncollig Industrial Estate. It is licensed for the manufacture or use of coating materials in processes with a capacity to make or use at least 10 tonnes per year of organic solvents, and powder coating manufacture with a capacity to produce at least 50 tonnes per year.

Figure 3.19 maps the location of these facilities.

3.6.2.2 Waste Licensed Facilities

In 1996 the EPA began licensing certain activities in the waste sector. These include landfills, transfer stations, hazardous waste disposal and other significant waste disposal and recovery activities.

A waste license is a single integrated license dealing with emissions to all environmental media and the environmental management of the facility. All related waste operations connected to the activity are considered in determining a license application. The EPA must be satisfied that the activity will not cause environmental pollution when carried on in accordance with the license conditions. Detailed procedures on processing waste license applications are set out in the Waste Management Act, 1996 which was amended by the Protection of the Environment Act, 2003 and associated regulations.

Advanced Environmental Solutions (Ireland) Ltd (Registration Number: W0104-01) has been issued with a waste license for the storage of waste intended for submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where such waste is produced. The facility is located in Cappincur.

KMK Metals Recycling Limited (Registration Number: W0113-01) is located in Cappincur Industrial Estate on the Daingean Road. Storage of waste intended for submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where such waste is produced.

The waste facilities in the Plan area are mapped in Figure 3.19.

3.6.2.3 Seveso Sites

The control of major accident hazards involving dangerous substances Directive, also referred to as the Seveso II or COMAH Directive, aims to ensure that, at locations where dangerous substances are handled in quantities above specified thresholds; there will be a high level of protection for people, property and the environment. This is to be achieved by: preventing or minimising the risk of a major accident; and, taking all the necessary measures to limit the consequences of such an accident, should it occur. The Directive is transposed into Irish law through the European Communities (control of major accident hazards involving dangerous substances) Regulations 2006 (SI No. 74 of 2006) implement Council Directive 2003/105/EC (amending Directive 96/82/EC).

The Seveso II Directive includes provisions in relation to land use planning. Article 12 of the Directive requires member states to ensure that the objectives of preventing major accidents and limiting the consequences of such accidents are taken into account in land use policies and/or other relevant policies. These objectives must be pursued through controls on the following:

- The siting of new establishments;
- Modifications to existing establishments;
- Development in the vicinity of an establishment which, by virtue of its type or siting, is likely to increase the risk or consequences of a major accident.

There is one designated Seveso site located within the Plan. This site is under the operation of Isotron and is located at the Srah Industrial Estate. The company deals in the sterilisation of medical equipment.

Where appropriate, the Health and Safety Authority provides advice in respect of planning applications within a certain distance of the perimeter of Seveso sites. The buffers determined by these distances are shown in Figure 3.20.

3.6.3 Noise

Noise is unwanted sound. It can seriously harm human health and interfere with daily activities at school, at work, at home and during leisure time.

Traffic noise alone is harming today the health of almost every third European¹⁹. There are a number of health risks associated with noise.

The over-riding noise source in Tullamore is from traffic. Streets that have high traffic counts as well as enclosing taller buildings are likely to have elevated noise levels.

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

3.6.4 Climatic Factors

3.6.4.1 Greenhouse Gases

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

Based on the inventory figures for 2006²⁰, the EPA estimates that Ireland's emissions in 2006 were 25.5 per cent higher than the baseline estimate that underlies Ireland's allowable emissions for the period 2008-2012, as agreed in the peer review of Ireland's 2006 submission to the United Nations Framework Convention on Climate Change.

With regard to overall emissions, *Agriculture* is the single largest contributor, at 27.7% of the

total, followed by *Energy* (power generation & oil refining) at 22.3% and *Transport* at 19.7%. The remaining 30% is made up by the Residential sector at 10.4%, *Industry and Commercial* at 17.2%, and *Waste* at 2.6%.

Transport continues to be the dominant growth sector with emissions at 682,000 tonnes higher in 2006 than in 2005. This represents a 5.2% increase on 2005 levels and 165% increase on the 1990 transport emissions. Road transport accounts for 97% of the transport sector emissions. The increase in the GHG emissions from the transport sector reflects sustained increases in fuel consumption with petrol usage up 3.4% and diesel consumption up 7.9% from the previous year.

3.6.4.2 Climate Change

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

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

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

3.6.4.3 Climate Model Predictions

The EPA's 'Climate Change: Regional Climate Model Predictions for Ireland' (2005)²¹ report provides an analysis of future Irish climate conditions for the period 2021-2060 based on the outputs from a new regional climate modelling facility located in Met Éireann.

Predictions include general warming in the future with mean monthly temperatures

¹⁹ 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

²⁰ EPA (2008) *Ireland's Emissions of Greenhouse Gases for the period 1990-2006* Wexford: EPA

²¹ Community Climate Change Consortium for Ireland (2005) *Environmental RTDI Programme 2000-2006 Climate Change: Regional Climate Model Predictions for Ireland (2001-CD-C4-M2) Final Report* Wexford: Environmental Protection Agency

increasing typically between 1.25 and 1.5°C and changes in precipitation, the most notable being a decrease of about 10% for June and increases ranging between 10% in the south-east and 25% in the north-west for December values.

The report cites Cunnane and Regan (1991)²² who investigated the effect of four climate scenarios on the catchment of the River Brosna, a tributary of the Shannon, which the Tullamore River, Silver River and Clodiagh River flow into, for the year 2030. Under these scenarios, precipitation and evaporation were increased on an annual basis, or seasonally on the basis of increased winter and decreased summer precipitation. The results indicated that although the magnitude of high and low flows would be only slightly greater than those observed within the range currently experienced, the frequency of flood and drought events would be likely to increase within that catchment. Seasonal flooding may occur over a larger area and persist for longer periods of time. Areas such as the Shannon basin will be vulnerable to these changes. Under the 2041–2070 scenario a decrease in groundwater storage was observed across the Country. During the summer months the reduction on the Brosna was approximately 20%, and for the Shannon, up to 50%. The predictions also indicate that the Brosna will experience an annual reduction in runoff of between 10 and 20%.

The report identifies that although it is not possible to comment on changes in flood magnitude and frequency, the increase in winter runoff indicated for many parts of the west, especially under the scenario for the period 2061–2090, is likely to have significant implications. River flooding tends to be more common during the wetter winter months when soils are near saturation. Many of the rivers draining upland areas have a rapid or 'flashy' response to rainfall enhanced by rising topography.

3.6.5 Existing Problems

Localised air pollution incidences with regard to PM10 and PM2.5 and noise pollution are both likely to occur when demolition/construction takes place - especially in relation to PM10 if

²² Cunnane, C. and Regan, S., 1991. Hydrology and freshwater resources. In: McWilliams, B.E. (ed.) *Climate Change: Studies of the Implications for Ireland*. Department of the Environment, Stationery Office, Dublin, Ireland. pp. 89–108.

suppression techniques are not introduced - and when traffic is queuing for long periods of time.

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

Changes in the occurrence of severe rainfall events as a result of climate change could adversely impact upon the area's human beings, its biodiversity and its economy (see also Section 3.5.6 *Flooding*).

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

Increases in the use of catalytic converters, cleaner fuels, better engine technology and maintenance is generally reducing the pollution omitted per motor vehicle however this reduction is probably being offset by the increase in the number of cars as well as the increase in the volume and incidences of traffic congestion. Increases in the number of cars as well as the increase in the volume and incidences of traffic congestion may lead to increases in air and noise pollution in the future.

If new development or an intensification of existing land uses were to occur in the Plan area adverse impacts upon air quality and noise levels, and resultant impacts upon human health would be likely to arise, if unmitigated.

In the absence of a Development Plan, the realisation of objectives relating to energy efficiency, renewable energy and a reduction in transport related emissions contained within the Development Plan would be made more difficult.

The Development Plan provides an opportunity to regenerate certain areas within Tullamore which are close to existing and proposed high quality public transport linkages. This regeneration would provide for an increased population which would be less dependent upon private modes for transportation and would therefore be likely to generate less transport related greenhouse gas emissions than

populations located further away from the urban areas. In the absence of a Development Plan, regeneration would be unlikely to be achieved and an opportunity to prevent the generation of future transport related greenhouse gas emissions would be missed.

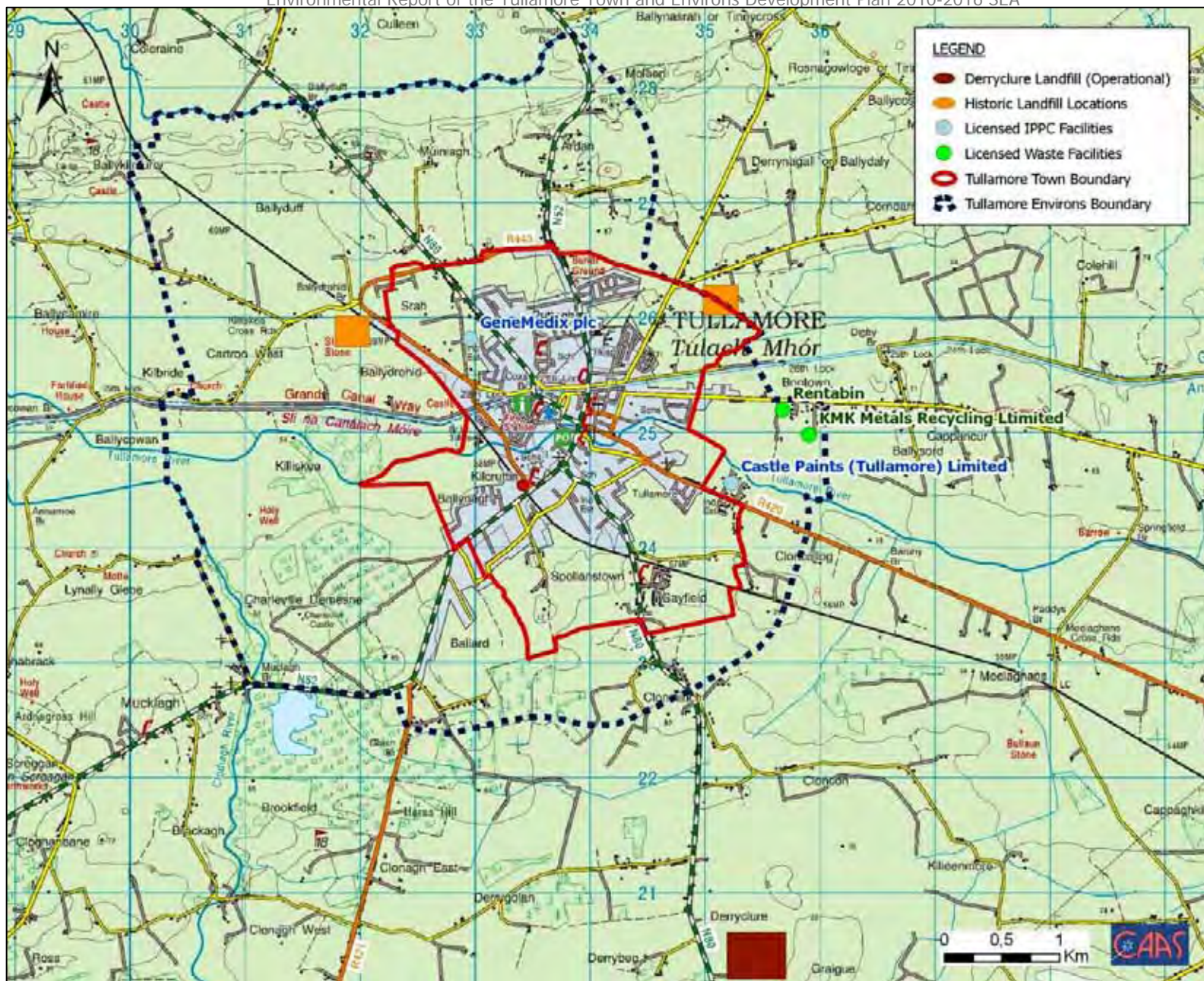


Figure 3.19 IPPC and Waste Licensed Facilities and Landfill

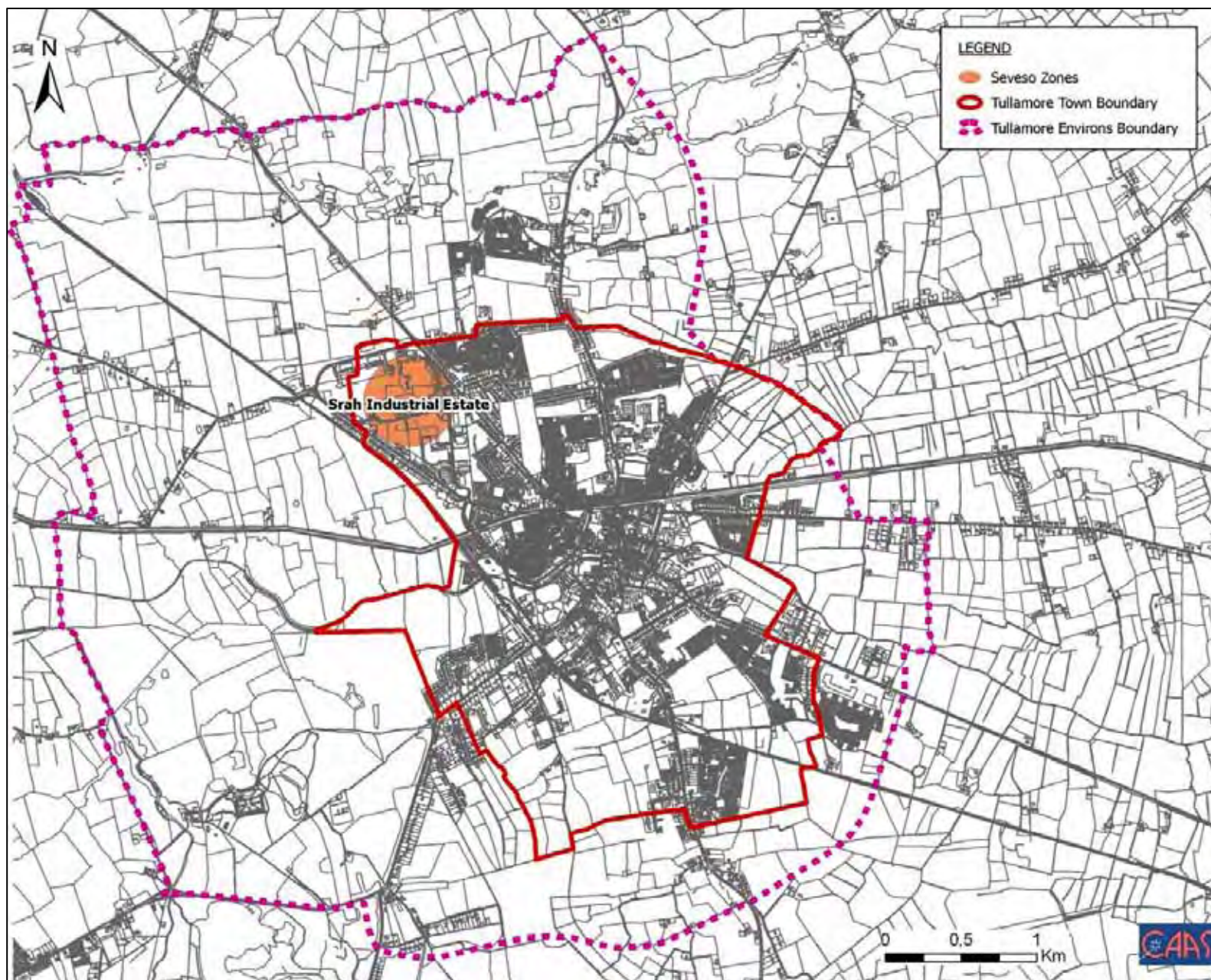


Figure 3.20 Seveso Site Location and Zone

CAAS for Tullamore Town Council and Offaly County Council

3.7 Material Assets

3.7.1 Waste Water

3.7.1.1 Relevant Legislation

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

3.7.1.2 Current Provision of Waste Water Treatment Infrastructure

Waste water arising from the Plan area is collected by the waste water collection network and pumped to the waste water treatment plant at Kilcruttin where it undergoes primary, secondary and tertiary treatment. Treated effluent is then discharged into the Tullamore River.

The waste water treatment plant and sewage pipes within the Plan area are mapped in Figure 3.21.

The network does not cover the full Plan area. The network serves Tullamore urban district, north Collins Lane, East Barony River and Clonminch. The remaining areas are unserved and utilises septic tank treatment.

Current shortfalls of the scheme include:

- plant overloading;
- no stormwater storage facility;
- the collection network requires extension and rehabilitation; and
- pump stations require upgrading.

The plant was designed and built to cater for 16,000 PE²³ but current loading at the plant is approximately 25,000 PE.

²³ Population equivalent (in waste-water monitoring and treatment) refers to the amount of oxygen-demanding substances whose oxygen consumption during biodegradation equals the average oxygen demand of the waste water produced by one person.

3.7.1.3 Proposed Upgrades to Public Wastewater Scheme

The Tullamore Waste Water Scheme is included in the Water Services Investment Program 2007-2009 for improvement/upgrade. Tenders for plans to upgrade the existing waste water treatment plant from 16,000 to 45,000PE are currently being reviewed. It is also proposed to upgrade and extend the collection network and pumping stations. The expected completion date for these works is 2011. Under the Offaly Council Sludge Management Plan 2001, a central sludge treatment facility is to be located in Tullamore. The upgrade of the Tullamore Waste Water Treatment Plant includes for the provision of a sludge treatment facility to cater for 80,000PE.

Offaly County Council has confirmed that the waste water treatment plant will have the capacity to treat waste water arising from the population as provided for by the Plan. While the waste water treatment plant is currently operating over capacity, the upgrade to the plant, due to be completed in 2011 will provide extra capacity for increased populations provided for by the Plan.

3.7.1.4 Private Wastewater Treatment Plants

Parts of the Tullamore Environs are still served by septic tanks such as areas along Charleville Road. The Councils require that all rural sites treat their effluent by installing a wastewater effluent treatment system.

3.7.2 Drinking Water²⁴

3.7.2.1 Water Supply

Drinking water is sourced from the Clodiagh and Gorragh Rivers at Clonaslee. There are five boreholes at Clonaslee, two boreholes at Arden and Sillogue well at Durrow. These groundwater abstraction points can be seen in Figure 3.22.

At present a new source is being developed on the banks of the Silver River to further supplement the available supply to the scheme. A borehole has been drilled and yield tests indicated a sustainable yield of 2,000m³/day. There has been some variability with the water quality of the source which indicates that treatment of the source may be required.

²⁴ Ryan Hanley (2009) *County Offaly Water Supply Outline Strategic Plan*

Storage within the scheme is currently provided by the 4,090m³ reservoir at Arden, in addition to a clear water tank at Clonaslee with a capacity of 2,880m³. There is also a water tower located at Clonminch, to the south of Tullamore, however this is currently redundant.

The supply network does not cover the full Plan area. The network serves Tullamore urban district, north Collins Lane, East Barony River, Clonminch, Ballydaly Group Water Scheme, Rahan (area east of Tully) and Clonaslee village. Shortfalls of the scheme include limited spare capacity and storage facilities.

Treatment at the water works at Clonaslee includes clarification, fluoridation, disinfection and sludge treatment and handling. The Clonaslee plant requires upgrading.

3.7.2.2 Proposed Upgrades to Public Water Supply Scheme

Tullamore Water Supply Scheme is included in the Water Services Investment Programme (WSIP) 2007-2009 for improvement/upgrade works. It is proposed to replace the water treatment plant at Clonaslee, provide additional storage at Clonminch and Arden, develop additional new water sources and provide key trunk and distribution mains.

3.7.2.3 Capacity and Demand

Available water supply stands at 8,940m³/day during the summer and 9,760m³/day during the winter. Current demand stands at 7,800m³/day. Domestic demand stands at 2,596m³/day while non-domestic demand stands at 2,235 m³/day. Predicted future demand is expected to be 16,480m³/day. Unaccounted-for-water in Tullamore stands at 3,510m³/day.

3.7.2.4 Drinking Water Quality

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

Compliance with the drinking water requirements is determined by comparing the results of analyses submitted by water suppliers to the standard for 48 parameters specified in the European Communities (Drinking Water) Regulations (No. 2), 2007. To ensure that these

standards are met, each water supply must be monitored on a regular basis.

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

Offaly County Council carried out 5,218 individual tests on drinking water during 2007. The overall rate of compliance in Co. Offaly, 98.6% was above the national average in 2007 though this did drop from 99% in 2006.

Compliance with the chemical (99.6%) parametric values for the County was good while compliance with the indicator parametric values (98.3%) and microbiological (97.3%) for water in the County, while less than the chemical, was satisfactory²⁵.

The Tullamore Public Water Supply is listed on the EPAs Remedial Action List for excessive levels of aluminium in the treated water.

²⁵ EPA (2007) *The Provision and Quality of Drinking Water in Ireland: A Report for the Years 2006-2007* Wexford: EPA

Waterbody	Name of source	Capacity (m ³ /day)	Notes
Surface Waters	Gorragh River	1,135	None
	Clodiagh	1,135	None
Ground Waters	Clonaslee Wellfield	2,200	New borehole added recently. Additional 500m ³ /day
	Arden Boreholes	2,380	None
	Sillogue Well	3,410	None
	New Arden Borehole	500	New borehole – Not yet commissioned
	Silver River Borehole	2,000	New Borehole - Variable Quality, not yet commissioned

Table 3.3 Capacity of drinking water sources

3.7.3 Waste Management

Tullamore Town Council and Offaly County Council are signatories to the Waste Management Plan for the Midlands Region 2005-2010.

There are currently 46 bring centres available for public use throughout the County and 3 civic amenity sites. There are currently 3 bring centres for recyclables available for public use in Tullamore (Car Park at Bury Quay, Car park at Tesco and Car Park on Daingean Road) and this service has been enhanced by the civic amenity site at Derryclure Landfill site.

Two historic landfill sites have been identified in Tullamore. These sites are located in the townlands of Ballydaly and Ballydrohid, Tullamore. The locations of these sites are mapped in Figure 3.19.

3.7.4 Vehicular Circulation

Vehicular circulation in Tullamore is provided through primary and secondary routes, main streets and roads.

Main roads within the Plan area include the N80, N52, R443 and R420.

Tullamore is located near to the new M6 (Dublin- Galway) national primary route, located on the N52 (Dundalk-Nenagh) national secondary route which provide links to Birr in the west of the County and Athlone (Westmeath) via the N6. In addition, Tullamore is also located on the N80 which links Moate to Rosslare, providing a strong regional connection.

Tullamore is also located on the main Dublin – Galway/Mayo rail line.

Figure 3.23 illustrates roads within the Plan area. An indicative proposed route for the Western Bypass is shown.

3.7.5 Existing Problems

Tullamore has experienced significant growth in recent years and development has put pressure on the available waste water treatment infrastructure. Treated effluent arising at the Waste Water Treatment Plant at Kilcrutrin is discharged into the Tullamore River. As the plant is currently operating over capacity, there is a risk that discharged water may not meet standards set out under the Urban Waste Water Treatment Directive (91/271/EEC) (amended by Directive 98/15/EEC). This situation is likely to be adversely impacting upon both the Tullamore and Clodiagh Rivers which are identified in Section 3.5.4.3 as being *(1a) at significant risk* in terms of achieving the WFD's objectives by 2015. By virtue of how it is used by people and by wildlife, the Tullamore River is listed on the Registers of Protected Areas under the Water Framework Directive.

Failure to provide appropriate waste water treatment infrastructure and capacity alongside development could lead to the contamination of drinking water resources. Additional waste water treatment infrastructure/capacity is needed in order to serve existing and proposed development if a sufficient, safe supply of drinking water is to be maintained.

Certain parts of the Plan area are not within the catchment of the waste water treatment

network and consequently development in these areas use septic tanks to treat waste water arising from the Plan area. If not properly maintained, septic tanks can cause pollution of groundwater bodies. Figure 3.15 shows that groundwater underlying the Plan area is mainly rated as being of high vulnerability with some areas classed as extreme vulnerability which puts groundwater in the area at higher risk of pollution.

Unaccounted-for-water in Tullamore stands at 3,510m³/day which is a waste of resources for the area.

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

In the absence of a Development Plan, it is likely that dispersed development would occur. This would make it more difficult to provide the necessary infrastructure such as waste water treatment plants and networks, water supply infrastructure, transport infrastructure and powerlines etc.

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

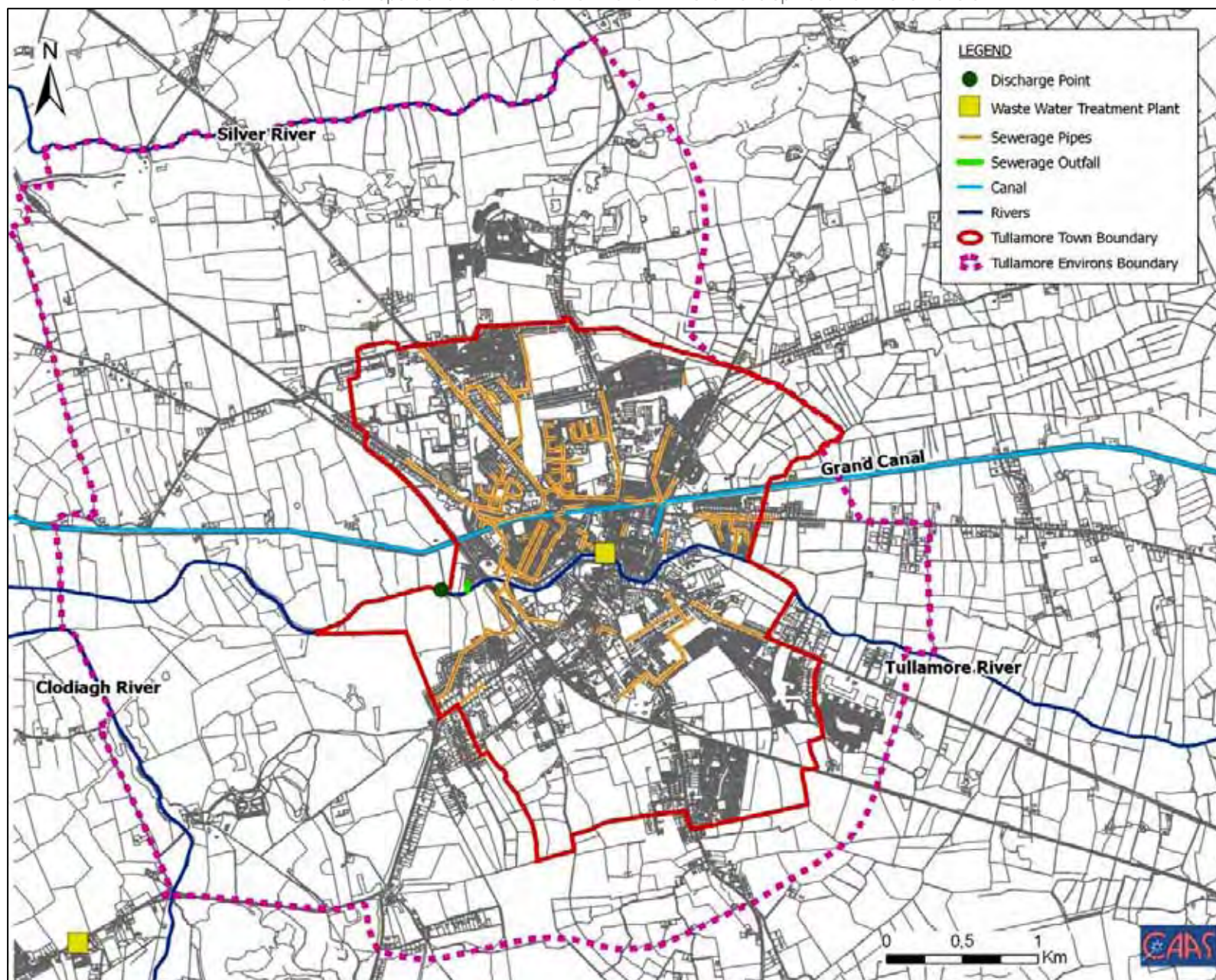


Figure 3.21 Sewage Network

CAAS for Tullamore Town Council and Offaly County Council

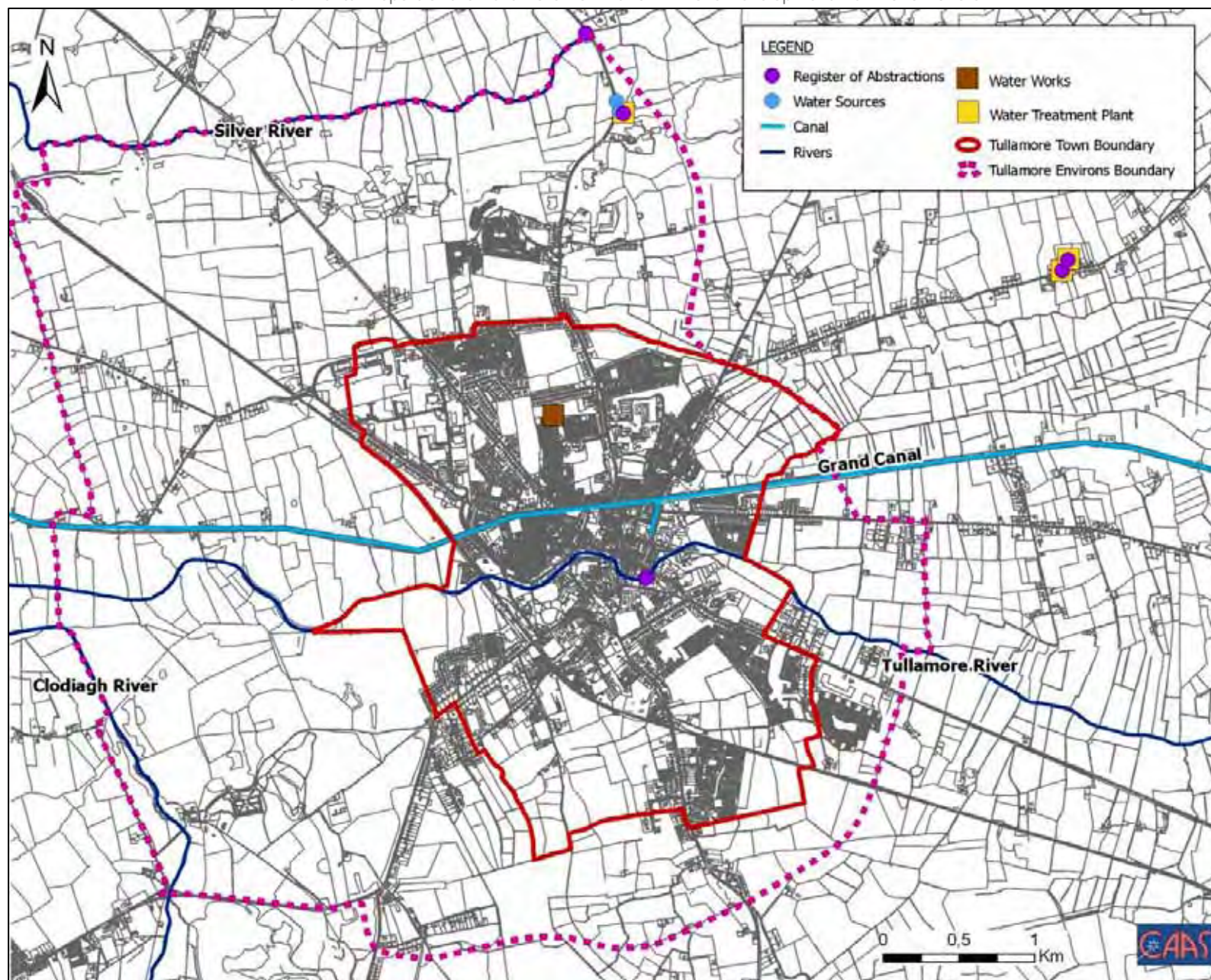


Figure 3.22 Water Supply Infrastructure

CAAS for Tullamore Town Council and Offaly County Council

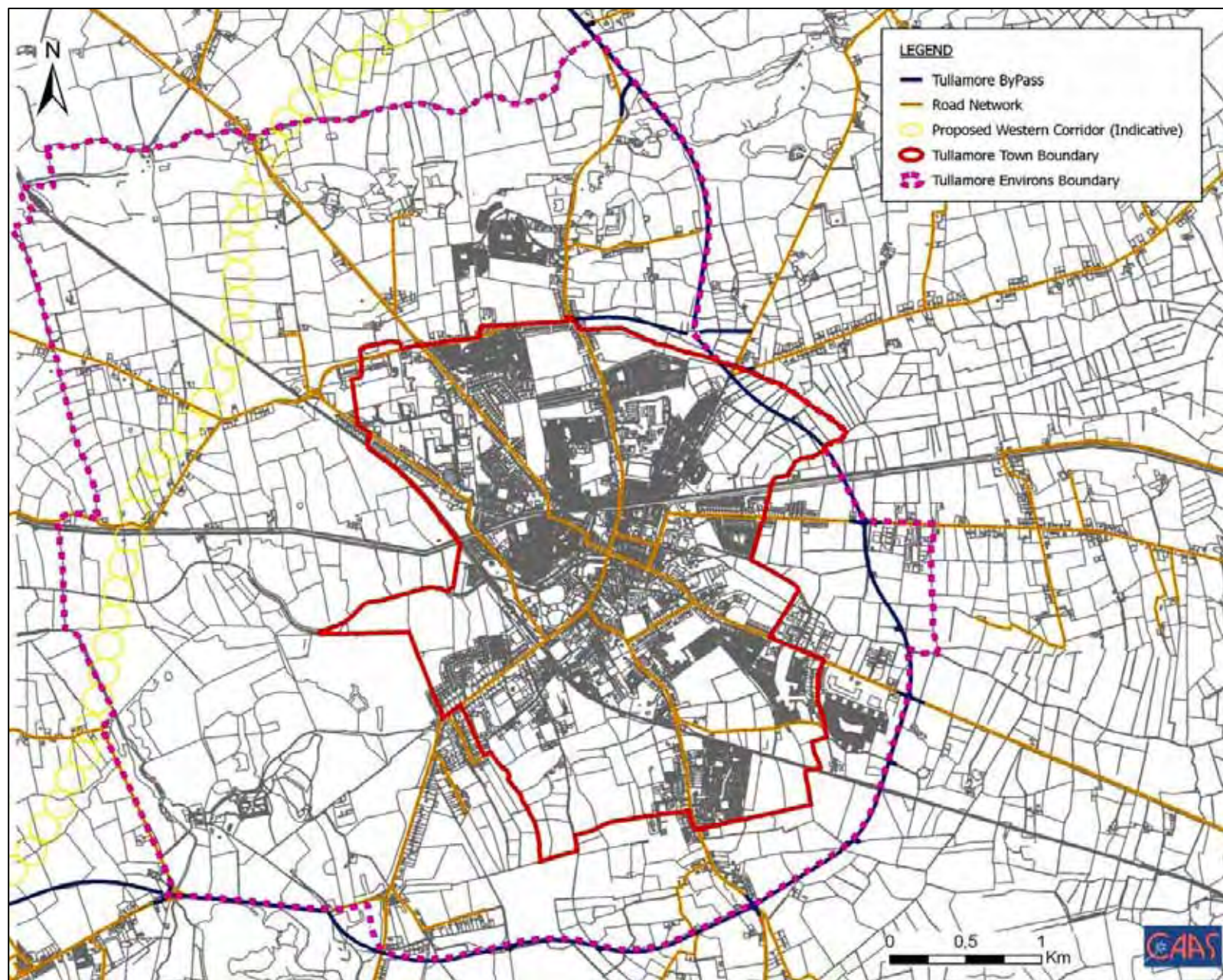


Figure 3.23 Road Network

CAAS for Tullamore Town Council and Offaly County Council

3.8 Cultural Heritage

3.8.1 Introduction

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

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

3.8.2 Archaeological Heritage

3.8.2.1 Introduction

Archaeology is the study of past societies through the material remains left by those societies and the evidence of their environment. Archaeological heritage consists of such material remains (whether in the form of sites and monuments or artefacts in the sense of moveable objects) and environmental evidence. As archaeological heritage can be used to gain knowledge and understanding of the past it is of great cultural and scientific importance.

Archaeological sites and monuments vary greatly in form and date; examples include earthworks of different types and periods, (e.g. early historic ringforts and prehistoric burial mounds), megalithic tombs from the Prehistoric period, medieval buildings, urban archaeological deposits and underwater features such as wrecks.

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

archaeological deposits and features may survive beneath the surface.

The Christian era, which resulted in the establishment of large monasteries and village clusters, and proceeding successive invasions modified the landscape around Tullamore and left behind archaeological heritage.

The Esker Riada has archaeological significance, as it formed the early highways in Ireland, and nowadays the *Monastic Way of Ireland* follows the Esker Riada or Kings Highway, providing an alternative, ancient route from Dublin to Galway. The route links various monasteries and sites of archaeological significance including one at Tullamore.

Tullamore contains various elements of archaeological heritage which are protected as monuments.

3.8.2.2 Record of Monuments and Places

Tullamore'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, put on a statutory basis by amendment to the National Monuments Act 1994, of sites and areas of archaeological significance, numbered and mapped.

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

territorial waters of the State', but excludes 'any building or part of any building, that is habitually used for ecclesiastical purposes'.

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

Figure 3.24 shows spatial distribution of entries to the RMP across the Plan area along with Zones of Archaeological Potential around each.

Entries include a Bawn, Enclosures, a Habitation Site and Castles.

A Bawn is a walled courtyard of a medieval house, tower house or fortified house (12th-17th centuries AD). There are some instances where the bawn survives but the building it was constructed to defend does not.

Enclosures include areas defined by an enclosing element and occurring in a variety of shapes and sizes, possessing no diagnostic features which would allow classification within another monument category. These may date to any period from prehistory onwards.

A Habitation Site is a concentration of archaeological features which are indicative of habitation, the remains being insufficient to allow a more specific classification. These may be of any date up to the medieval period (5th-16th centuries AD).

Castles can date from the late 12th to the 16th century AD. Castles in the Plan area include Anglo-Norman masonry castles, hall-houses and tower houses.

Srah Castle is a sixteenth century structure built by Briscoe in 1588. The castle was extensively damaged during the Cromwellian Wars and replaced by a seventeenth century house. It is in a ruinous state and the landform surrounding the castle indicates an area rich in archaeological importance. The Srah castle is an archaeological site and lies to the north of the Grand Canal, towards the western side of the Plan area.

Charleville Castle was designed in 1798 by Francis Johnston. The Castle, of Gothic-Revival style, is now being restored by the Charleville Castle Heritage Trust.

There is a large Zone of Archaeological Potential located in the vicinity of Srah Castle in the West of the Town.

3.8.3 Architectural heritage

3.8.3.1 Introduction

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

3.8.3.2 Record of Protected Structures

The Record of Protected Structures (RPS) included in the current Development Plan is legislated for under Section 51 of the Planning and Development Acts 2000 to 2009.

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

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

- (i) the interior of the structure;
- (ii) the land lying within the curtilage²⁶ of the structure;

²⁶ 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).

The Minister for the Environment, Heritage and Local Government has made recommendations for 125 structures in the Town Council boundary²⁷ to be listed as Protected Structures. Of these 125 structures, 49 were not previously listed in the Tullamore Town and Environs Development Plan 2004-2010. In total, there are now 208 proposed Protected Structures within the Tullamore Town Council boundary and the Environs, 18 of which have been adopted as part of the Offaly County Development Plan 2009-2015. These are mapped in Figure 3.25. Figure 3.26 maps these structures in the Town Centre.

The NIAH is a state initiative under the administration of the DEHLG which was established on a statutory basis under the provisions of the Architectural Heritage (National Inventory) and Historic Monuments (Miscellaneous Provisions) Act 1999. Its purpose is to identify, record, and evaluate the post-1700 architectural heritage of Ireland, uniformly and consistently as an aid in the protection and conservation of the built heritage. It is intended that the NIAH provides the basis for the inclusion of particular structures in the RPS. NIAH entries within the Plan area, all of which are located within the Town Council boundary, are mapped on Figure 3.27.

The Grand Canal runs in an east/west direction through the Plan area. It links the River Shannon with Dublin to the east. The construction of the Grand Canal commenced in 1756 it reached Tullamore in 1798 and the Shannon in 1804. Tullamore was the terminus for the intervening six years.

²⁷ The Protected Structures for Tullamore Environs, which is under the remit of the Offaly County Development Plan 2009-2015 and therefore adopted under the County Record of Protected Structures, are included for identification purposes in the Tullamore Town Record of Protected Structures.

3.8.4 Existing Environmental Problems

The cumulative accommodation of large scale development in Tullamore has the potential to cumulatively impact upon the cultural heritage of the Plan area.

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

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

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

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

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

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

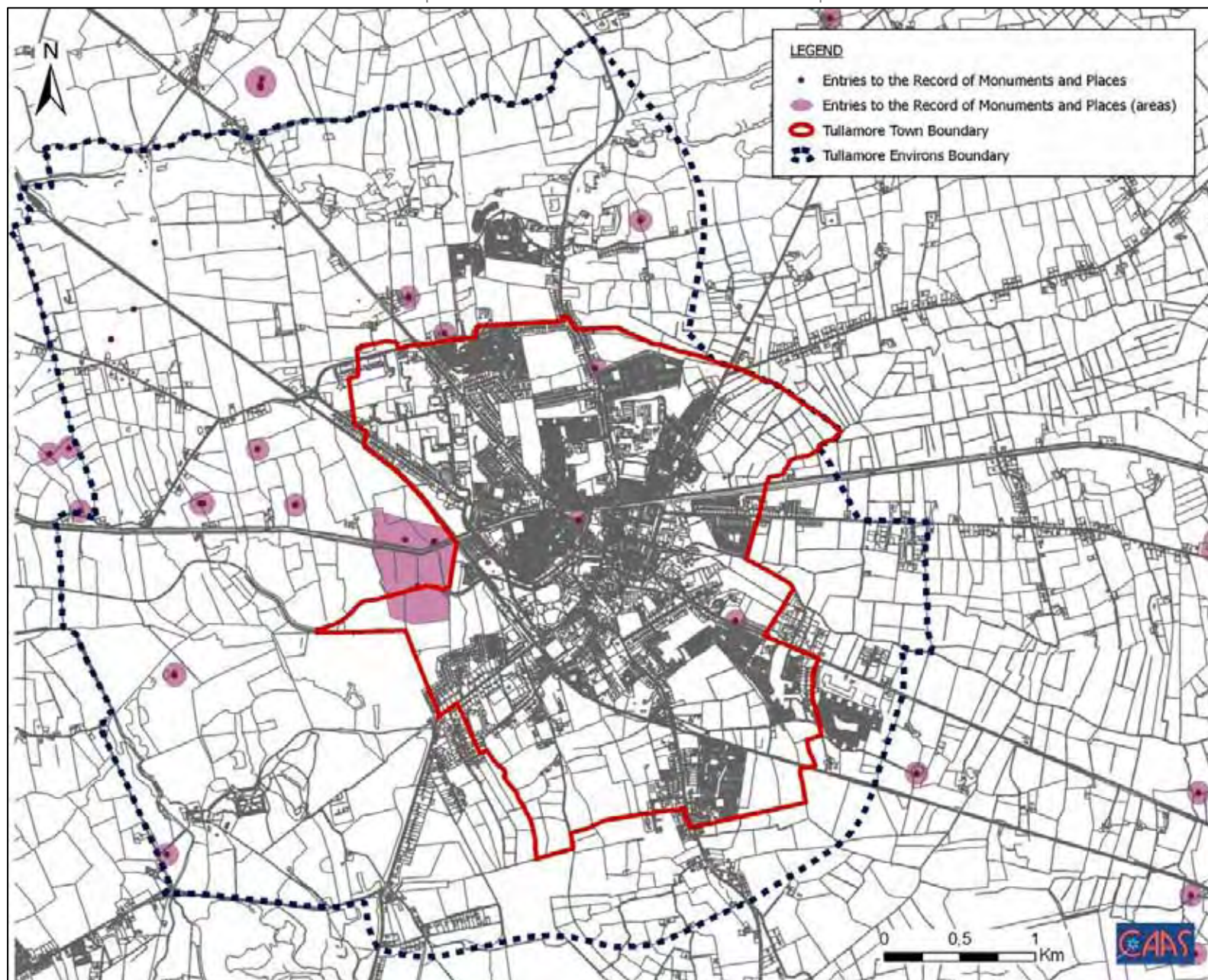


Figure 3.24 Entries to the Record of Monuments and Places

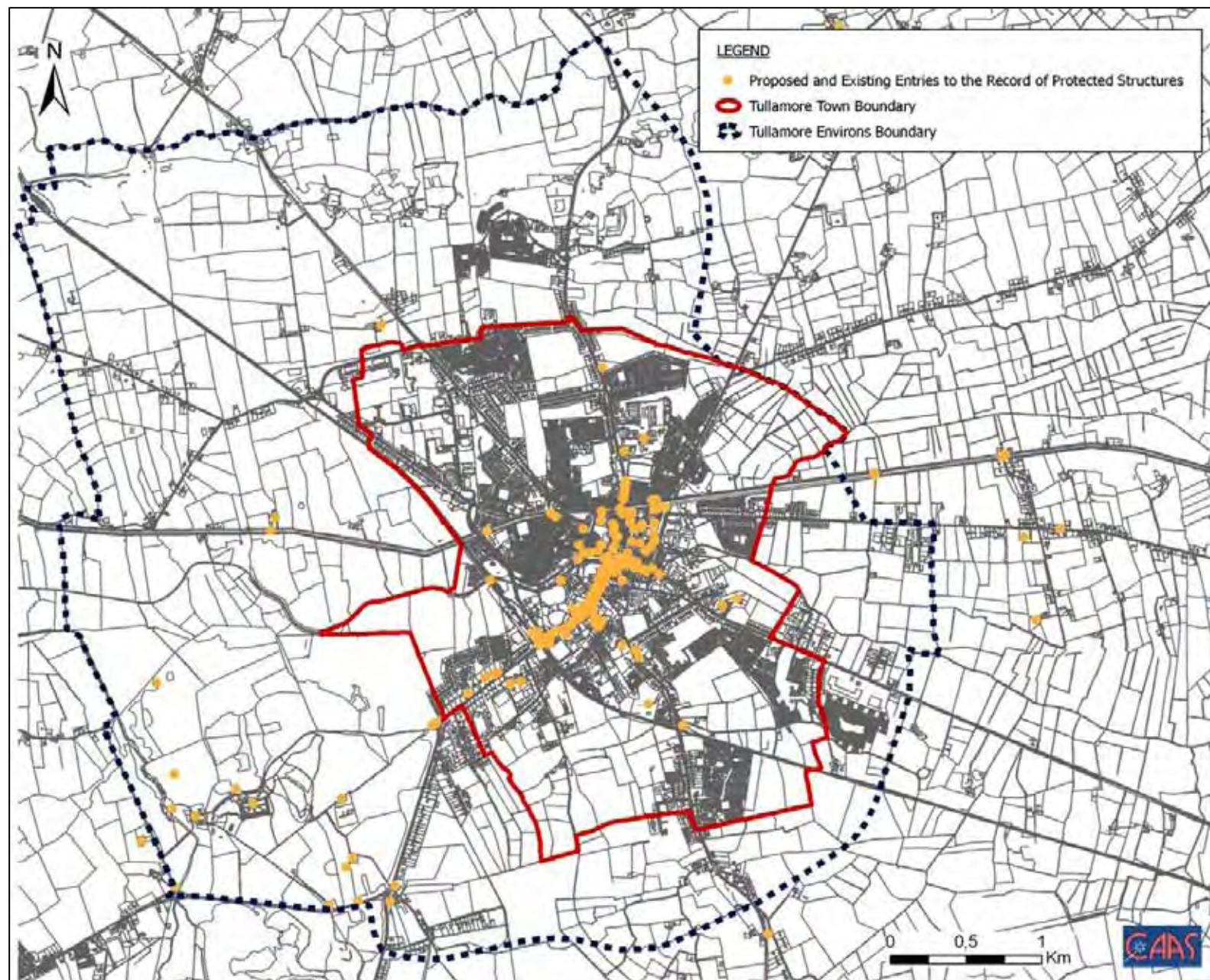


Figure 3.25 Proposed and Existing Entries to the Record of Protected Structures within the Plan area

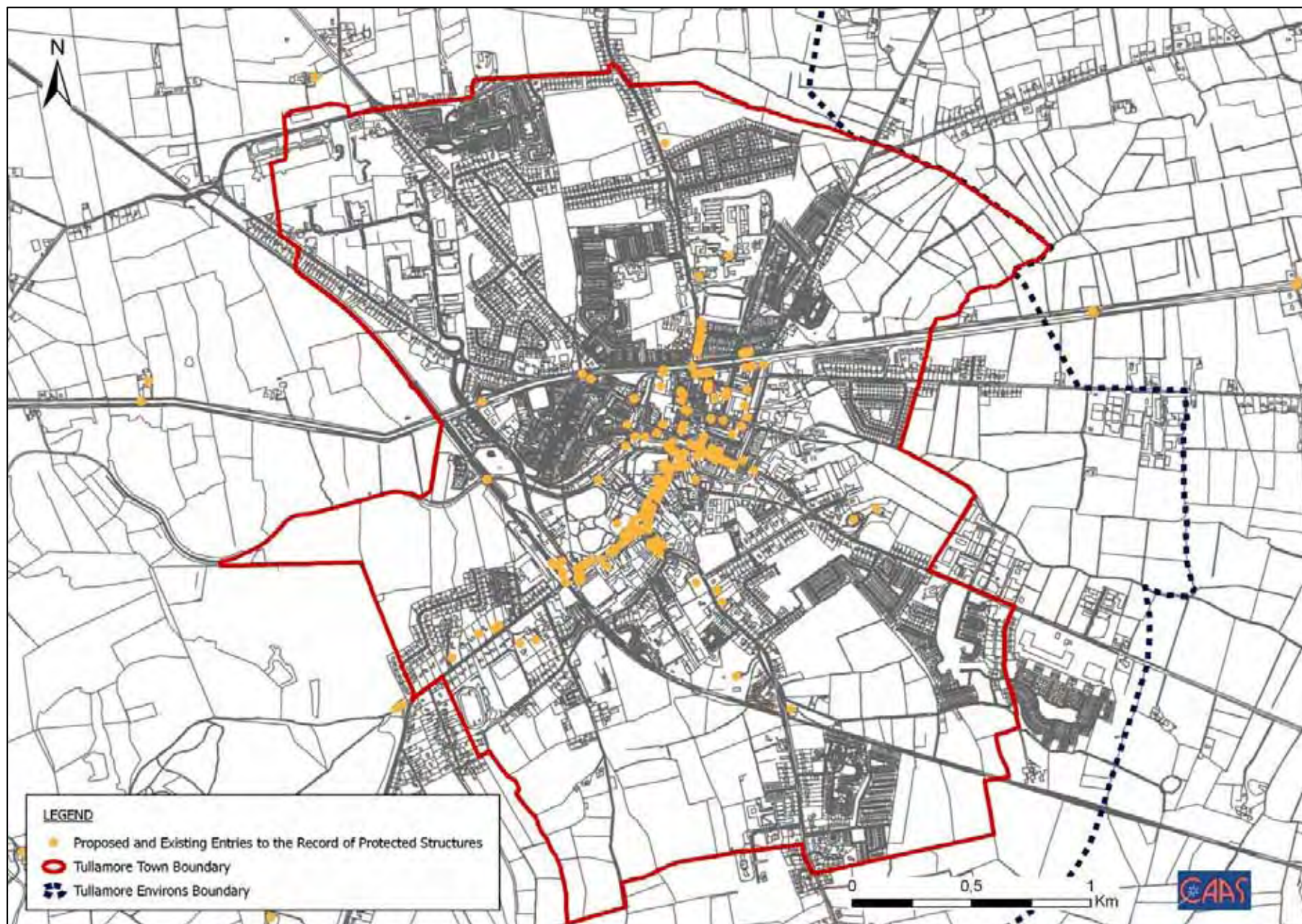


Figure 3.26 Proposed and Existing Entries to the Record of Protected Structures within the Town

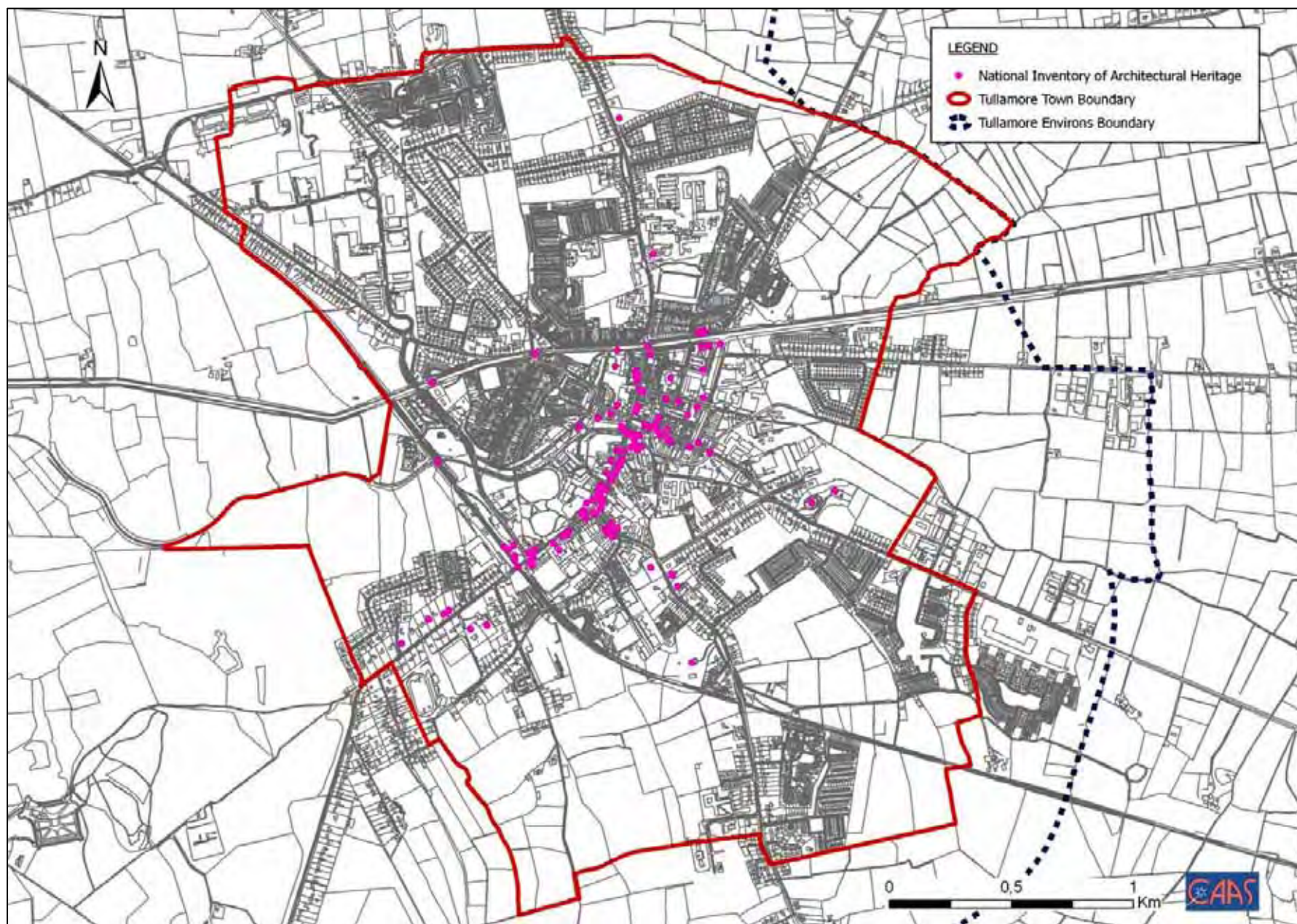


Figure 3.27 Structures listed within the National Inventory of Architectural Heritage

3.9 Landscape

3.9.1 Introduction

Landscapes are areas which are made up of a number of layers: landform, which results from geological and geomorphological history; land cover, 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 land cover.

Tullamore comprises both an urban and rural landscape. The urban landscape displays a predominantly traditional urban form and low rise townscape. The Tullamore River and the Grand Canal dissect the centre of the Town as both flow in an east- west direction.

The Environs area is characterised by a relatively level expanse of agricultural land traversed by the Esker Riada to the north of the town and bisected by a number of road routes radiating from the town centre. The environs area envelopes the central urban area and accommodates the Tullamore River and Grand Canal both east and west of the central urban area and comprises also the mature parkland area of Charleville Demesne to the south west of the central urban area.

The extremity of the Environs area predominantly comprises agricultural lands with low density dwelling within the open countryside.

In general terms, Tullamore's landscape is gently undulating outwards from its urban core into the surrounding hinterland, with linear water bodies running through same, esker ridges located to the north of the town and Charleville Wood to the south-west.

3.9.2 Landscape Classification

The importance of landscape and visual amenity and the role of its protection are recognised in the Planning and Development Acts 2000 to 2009, which require that Development Plans include objectives for the preservation of the landscape, views and the amenities of places and features of natural beauty.

In accordance with the DEHLG's *Landscape and Landscape Assessment Guidelines* (2000), Offaly County Council have prepared a Landscape Classification for the County which classifies the different landscapes of the County in relation to their different characteristics and values and their degree of sensitivity to various kinds of development.

This Landscape Classification identifies ten distinct landscape types which have similar character-contributing elements such as slope, vegetation and land use.

Each of these ten landscape types have been attributed one of three sensitivity classes;

- Low Sensitivity (Class 1);
- Moderate Sensitivity (Class 2); and,
- High Sensitivity (Class 3).

The landscape sensitivity classes relate to the ability of certain landscapes to accommodate change or intervention without suffering unacceptable effects to character and values.

The following sections list sensitivities of the landscape types relevant to Tullamore.

Figure 3.28 shows the spatial distribution of Landscape Sensitivity Classes across the Plan area.

Areas not attributed with any classification are of a low sensitivity.

3.9.3 Class 1 - Low Sensitivity - Rural and Agricultural Areas

This class largely encompasses the Plan area's main urban and farming areas - this makes up the majority of the Plan's area. These areas comprise natural enclosing features (e.g. topography, vegetation) which have the capacity to absorb a range of new development.

These areas can effectively absorb appropriately designed and located development.

3.9.4 Class 2 - Moderate Sensitivity

Areas which have an intrinsic quality and a moderate capacity to absorb new development are included in this classification.

Figure 3.28 illustrates the spread of the moderately sensitive areas within and adjacent to the Plan area. Areas of deciduous woodland and coniferous forestry in the south west of the Plan area within and surrounding Charleville are identified as being moderately sensitive as is an area of peat bog to the east of the Plan area.

3.9.5 Class 3 - High Sensitivity - and Areas of High Amenity

Features or areas of natural beauty or interest which have extremely low capacity to absorb new development are included in this category. Areas included within this class are in addition to being highly sensitive are identified as being Areas of High Amenity.

There are three landscape types within Tullamore which are classified as being highly sensitive and/or Areas of High Amenity: the Esker Riada; Charleville Wood cSAC; and, the Grand Canal Corridor. These are mapped in Figure 3.28.

- **The Grand Canal Corridor**

The Offaly section of the Grand Canal comprises some 64 kilometres from Edenderry to Shannon Harbour. It passes through the towns of Daingean and Tullamore. There is a disused Kilbeggan branch line, which is now used as a walking route. The canal traverses large tracts of boglands and is bordered by hedgerows dating back 200 years and little fringes of wild vegetation along the bank.

The Grand Canal is a focus for a wide range of uses, especially for recreation and tourism purposes. The visual quality of the surrounding areas is intrinsic to maintain the attractiveness of the Grand Canal corridor. Hence, the corridor is especially sensitive to large development structures, insensitively designed sporadic housing and large-scale land uses such as extractive industries. As the landscape around the Grand Canal Corridor is both flat and undulating, height restriction should apply to developments in the flatter

areas to avoid long distant visual intrusion.

- **Charleville Wood cSAC**

This landscape is sensitive to new development, which could damage the historical character and the social importance of the area. All planning applications for development, refurbishment, restoration works etc within close proximity to this area should be developed in a sensitive and sympathetic manner.

- **The Esker Landscape**

The Esker Riada traverses the north-western corner of County Offaly in a more or less continuous line from Shannonbridge to Clonmacnoise and onto Clara, Durrow and Rahugh in County Westmeath. Eskers were built up from sand and gravel under the ice cap about ten thousand years ago and also have archaeological significance, as they formed the early highways in Ireland.

In addition to being a unique landscape component, eskers are of significant geomorphological, scientific, historical, recreational and amenity value.

3.9.6 Existing Environmental Problems

Since the industrialisation of peat harvesting in the 1950s, ecological, aesthetic and recreational values of Tullamore's raised bog landscape have been changed.

The development of pits for sand and gravel extraction has impacted upon the esker landscape of the Plan area and its various geomorphological, scientific, historical, recreational and amenity values.

Individual developments such as one-off houses have cumulatively changed the appearance of the landscape within the Plan area.

3.9.7 Evolution of Landscape in the absence of a Development Plan

In the absence of a Development Plan all new developments would not be directed to the most appropriate locations.

It is likely that in the absence of a Development Plan there would be no framework directing housing developments to appropriate locations or requiring certain mitigation measures for developments located in sensitive landscapes. It is likely that one off housing applications would increase as would the potential that sensitive landscapes and sensitive landscape components would be impacted upon. As outlined above, this would have cumulative impacts on the landscape.

Restrictions on new pits for sand and gravel extraction in the Town's esker landscape would be reduced and as a result there would be likely to be further impacts on the values of this landscape.

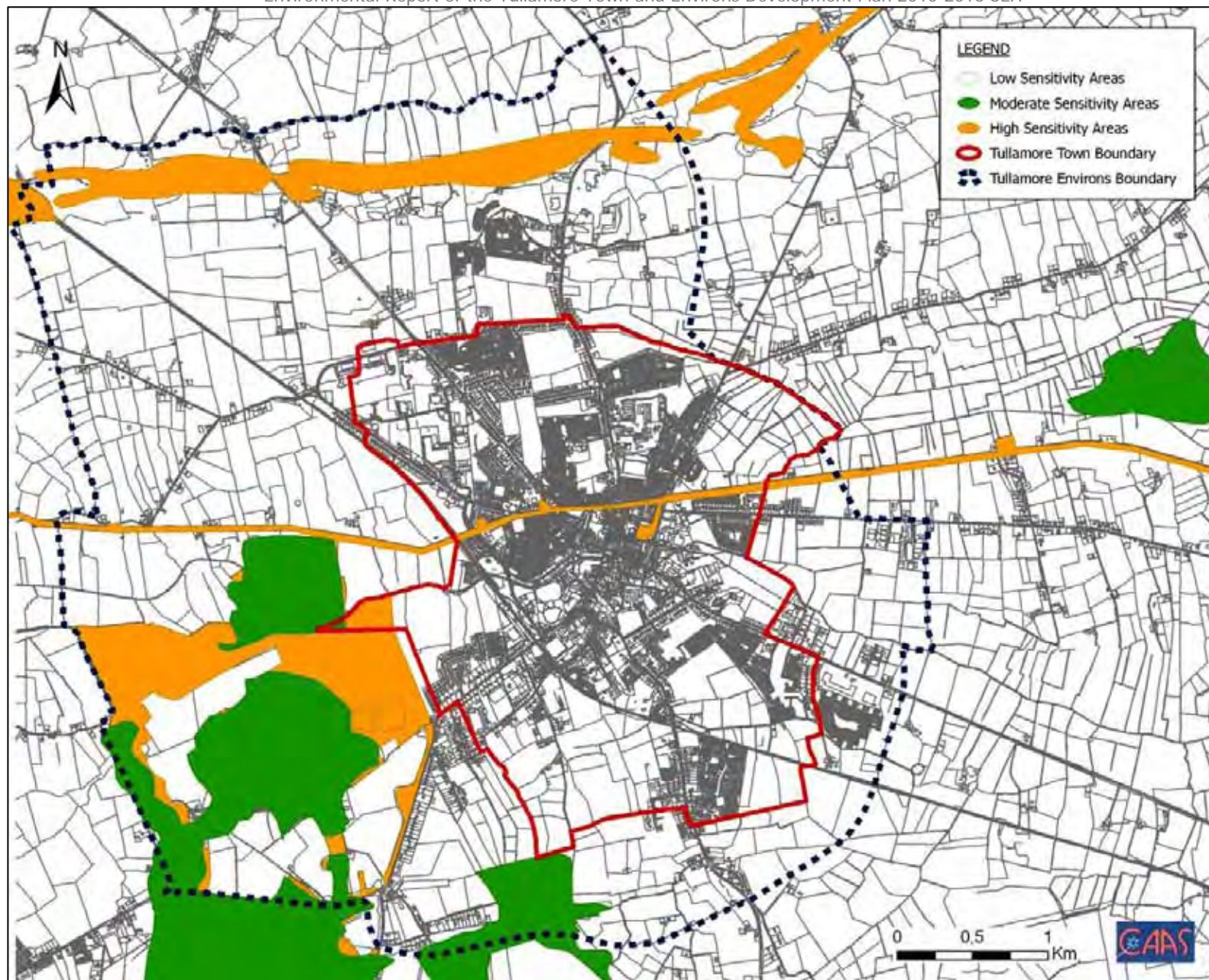


Figure 3.28 Landscape Sensitivity Areas

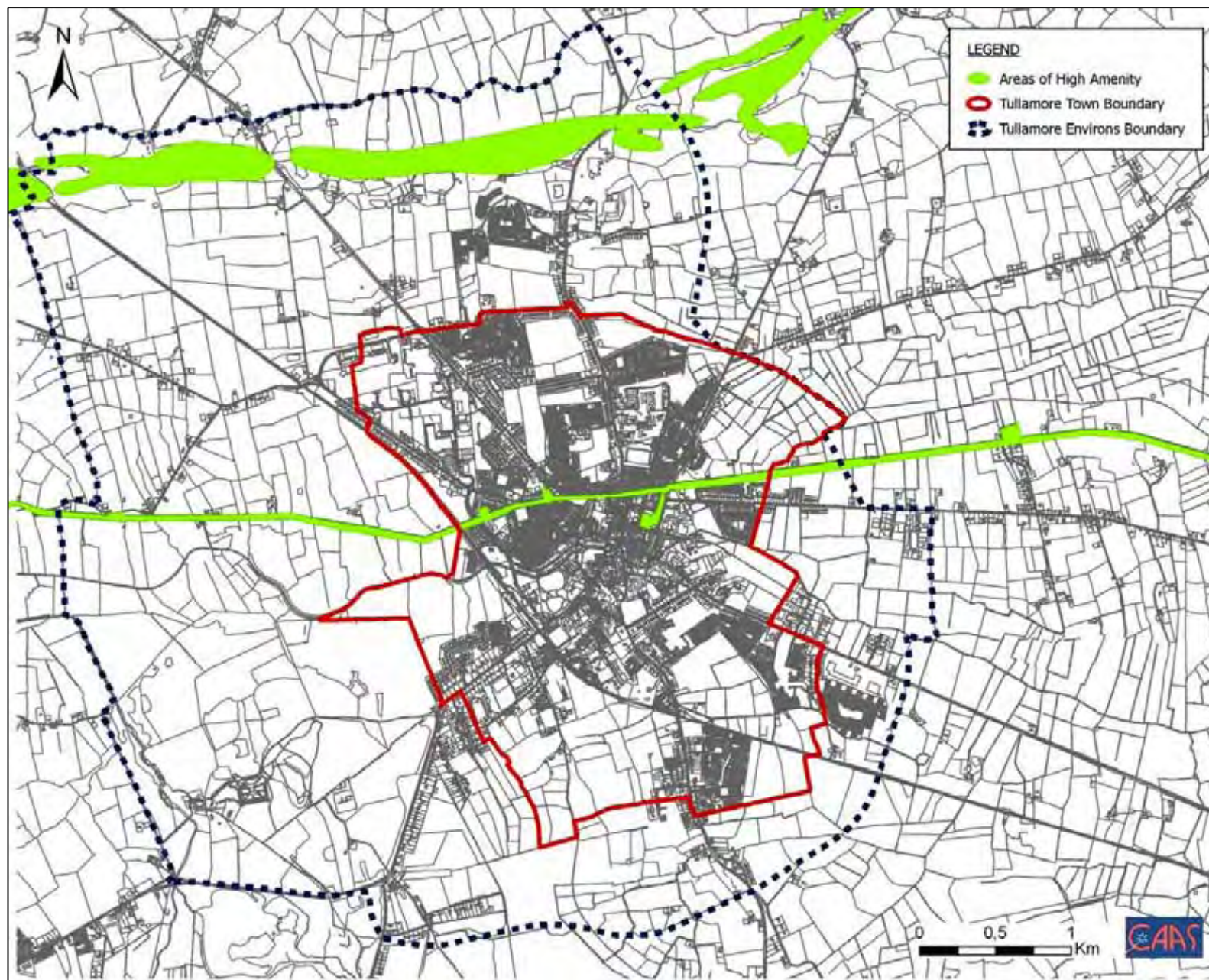


Figure 3.29 Areas of High Amenity

significant risk as well as 'Class 2: Moderate Sensitivity' landscape areas.

3.10 Overlay Mapping of Environmental Sensitivities

3.10.1 Introduction

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

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

Figure 3.30 shows the Overlay of environmental sensitivities for Tullamore.

3.10.2 Methodology

A weighting system applied through Geographical Information System (GIS) software was used in order to calculate the vulnerability of all areas in the Plan area. Equal value is given to all environmental components (landscape, water, biodiversity etc.) although a distinction made between the various sensitivity factors of each aspect:

- High sensitivity factors are given a weighting of 10 points and include: ecological designations; surface and groundwater bodies at significant risk; entries to the Record of Monuments and Places; entries to the Record of Protected Structures and National Inventory of Architectural Heritage; and 'Class 3: High Sensitivity' landscape areas.
- Moderate sensitivity factors are given half the weighting of the high sensitivity factors and include surface and groundwater bodies that are probably at

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

The scores for each area are added together in order to determine overall vulnerability as is shown on Table 3.4.

Score	Vulnerability Class
10-15	Low
20-25	Moderate
30-35	Elevated
40-45	High
50-60	Extreme
>65	Acute

Table 3.4 Overall Vulnerability Classes

3.10.3 Use of the Overlay Mapping

Although there are limitations and elements of subjectivity to the overlaying of sensitivities the overlay mapping was used in order to speedily identify the areas where conflicts between development within the Plan area and environmental sensitivities would be likely to occur if unmitigated.

3.10.4 Quantification of Sensitivities

Table 3.5 quantifies the spatial area of Tullamore which falls under each of the vulnerability area classifications when all selected factors are given equal weighting.

The majority of the Plan area (20.48km² or 78.67% of the Plan area) is classed as being moderately vulnerable. The second largest area is of high vulnerability (1.98km² or 7.63% of the Plan area). Next are areas of elevated vulnerability which cover 171km² or 6.58% of the Plan area. This is followed by areas classed as extreme vulnerability – 1.6km² or 6.13% of the Plan area followed by low vulnerability areas and finally acute areas (.09km² or .34% of the Plan area).

3.10.5 Limitations

It is noted that there are elements of subjectivity to the weighting systems used in this section. However, it is also noted that efforts were made to be as objective as possible – for each factor was given an equal weighting depending on whether it is a *highly* or a *moderately* sensitive factor.

Areas identified as being of high or extreme vulnerability include the Canal, lands at Killiskea and the Esker areas to the north of the Town.

3.10.6 Conclusions

Most of the Plan area is identified as being of Moderate Vulnerability. Some areas, especially in the south west, are identified as being of a High to Extreme Vulnerability.

Charleville Demesne is the most acutely vulnerable part of the Plan area due to the cumulative sensitivities intrinsic to the Demesne's environment. These sensitivities include: sensitive habitats; sensitive ground and surface waters; sensitive landscape areas; flood risk; and, sensitive cultural heritage.

The vulnerability of areas adjacent to the Tullamore River is heightened due to the presence of the River's flood plain.

Architectural and archaeological designations increase the vulnerability of certain parts of the Plan area particularly in the Town Centre where these designations occur in clusters.

Vulnerability Area	Area (km ²)	% of Plan area Vulnerability Class Total
Low	0.17	0.65
Moderate	20.48	78.67
Elevated	1.71	6.58
High	1.98	7.63
Extreme	1.60	6.13
Acute	0.09	0.34
Total	26.03	100%

Table 3.5 Quantification of Vulnerability Areas

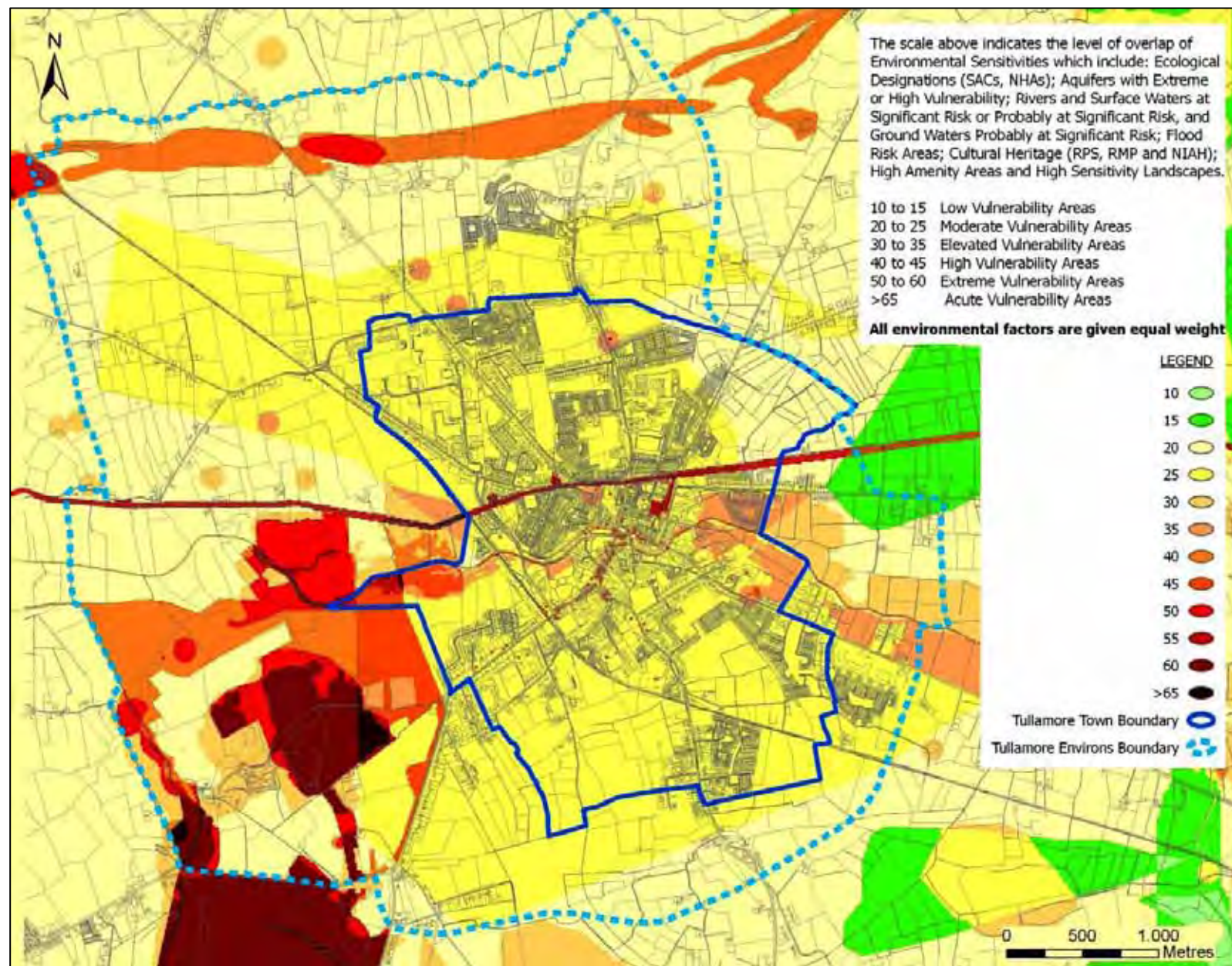


Figure 3.30 Overlay of Environmental Sensitivities

Section 4 Strategic Environmental Objectives

4.1 Introduction

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

SEOs are distinct from the objectives of the Plan - although they will often overlap - and are developed from international, national and regional policies which generally govern environmental protection objectives. Such policies include those of various European Directives which have been transposed into Irish law, all of which are intended to be implemented at local level in Tullamore and integrated into any plan for the Town and its Environs.

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

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

The primary source used in formulating the SEOs was Table 4B of the SEA Guidelines (DEHLG, 2004)²⁸. This list has been amended to give affect to objectives that are considered

relevant to this Development Plan. The use of SEOs, although not a statutory requirement, does fulfil obligations set out in Schedule 2B of the Planning and Development (Strategic Environmental Assessment) Regulations 2004 (SI No. 436 of 2004).

4.2 Biodiversity, Flora and Fauna

4.2.1 International, European and National Strategic Actions

4.2.1.1 UN Convention on Biological Diversity 1992

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

4.2.1.2 National Biodiversity Plan 2002

The preparation and implementation of Ireland's National Biodiversity Plan 2002²⁹ complies with an obligation under the UN Convention on Biological Diversity. The overall goal of the Plan is to secure the conservation, including where possible the enhancement and sustainable use of biological diversity in Ireland and to contribute to conservation and sustainable use of biodiversity globally. Objectives following on from this goal are to:

- Conserve habitat diversity, including all sites of special biodiversity importance;
- Conserve species diversity;
- Conserve genetic diversity, both wild and domesticated; and
- Contribute to the conservation and sustainable use of biodiversity and to advancing other obligations of the CBD in the EU, regionally and internationally.

²⁸ DEHLG (2004) *Implementation of SEA Directive (2001/42/EC): Guidelines for Regional Authorities and Planning Authorities* Dublin: Government of Ireland.

²⁹ Department of Arts, Heritage, Gaeltacht and the Islands (2002) *National Biodiversity Plan* Dublin: Government of Ireland

4.2.1.3 Habitats Directive 1992

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

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

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

4.2.1.4 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.

Prior to statutory designation, pNHAs are subject to limited protection, in the form of:

- Rural Environment Protection Scheme (REPS) plans which require conservation of pNHAs and operate for a period of 5 years;
- Forest Service requirement for NPWS approval before they will pay afforestation grants on pNHA lands; and/or,
- Recognition of the ecological value of pNHAs by Planning and Licensing Authorities.

The Geological Survey of Ireland (GSI) is compiling a list of geological/geomorphological sites in need of protection through NHA designation. A committee of expert geologists provides an initial list of sites which then undergo a process of survey, reporting and review, to provide recommendations regarding NHA status or otherwise. The GSI has completed its list of karst (i.e. exposed limestone) and early fossil sites.

4.2.2 SEOs, Indicators and Targets

The following SEOs, Indicators and Targets have been identified and developed with regard to the objectives of the above strategic actions and the environmental baseline described in Section 3.

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

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

species or their sustaining resources in designated ecological sites by development within or adjacent to these sites as a result of implementation of the Development Plan

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

Note: the impact of implementing the Development Plan on aquatic biodiversity and flora and fauna is influenced by both impacts upon the quality of water bodies - which relates to SEOs W1 and W2 - and the provision of appropriate levels of waste water treatment infrastructure - this relates to SEO W4.

4.3 Population and Human Health

4.3.1 Population

In order to promote sustainable development and allow for public transport systems to function more effectively - as promoted by the National Spatial Strategy and other high level land use strategic actions - it is essential to consolidate the physical growth of Tullamore. Within the Plan area this can be achieved through the development of vacant, derelict and underutilised lands, in particular where they are in close proximity to public transport routes.

The DEHLG's Residential Density Guidelines 1999 and the DEHLG's Sustainable Residential Development in Urban Areas Guidelines 2008 recommend planning authorities to promote

higher residential densities, particularly in redeveloping 'brownfield' sites and in proximity to town centres and public transport corridors.

The impacts of implementing the Development Plan on both the spatial distribution of population and the nature of development (with regard to greenfield and brownfield development) within the Plan area across the wider County relates to SEO S1 which aims to maximise sustainable brownfield development and minimise the loss of highly productive agricultural soils.

4.3.2 Human Health

4.3.2.1 Introduction

The impact of implementing the Development Plan on human health is determined by the impacts which the Plan has upon environmental vectors. Impacts which the Development Plan has upon these vectors are influenced by:

- The extent to which new development is accompanied by appropriate infrastructure - this relates to SEOs W4 and W5;
- Impacts upon the quality of water bodies - this relates to SEOs W1 and W2;
- The extent of development provided by the Plan which would increase flood risk - this relates to SEO W3; and,
- The interaction between human beings and the noise generated by the landuses provided for by the Plan.

4.3.2.2 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. Nonetheless for the sake of consistency with the requirements of the SEA Regulations this section includes objectives, indicators and targets for health.

4.3.3 SEOs, Indicators and Targets

The impacts of implementing the Development Plan on the spatial distribution of population relates to SEO S1 which aims to maximise sustainable brownfield development and minimise the loss of highly productive agricultural soils.

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

4.4 Soil

4.4.1 Proposal for a Soil Framework Directive

To date, there is no legislation which is specific to the protection of soil resources and soil protection is addressed indirectly and/or within sectoral policies: water, waste, chemicals, industrial pollution prevention, nature protection, pesticides and agriculture.

However, there is currently an EU Thematic Strategy on the protection of soil which includes a proposal for a Soil Framework Directive which proposes common principles for protecting soils across the EU.

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

4.4.2 SEOs, Indicators and Targets

The following SEO, Indicator and Target have been identified and developed with regard to the proposed Soil Directive, land use strategic actions detailed under Section 4.3.1 and the environmental baseline described in Section 3.

SEO S1:	Maximise the sustainable re-use of brownfield lands, and maximise the use of the existing built environment rather than developing greenfield lands ³⁰
Indicator S1:	Area of brownfield land developed over the plan period
Target S1:	Reduced availability of brownfield land (subject to availability on the open market, the demand for such land and the ability for such lands to be sustainably re-used within the provisions of the Development Plan) at the end of the Development Plan lifespan

Note: the impact of implementing the Development Plan on soil quality is influenced by impacts upon the quality of water bodies which relates to SEOs W1 and W2.

4.5 Water

4.5.1 The Water Framework Directive 2000

4.5.1.1 Introduction

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

³⁰ SEO S1 was identified as conflicting with SEOs CH1 and CH2

4.5.1.2 Good Status for Surface Waters

Good status as defined by the WFD equates to approximately Q4 in the national scheme of biological classification of rivers and mesotrophic in the trophic classification of lakes, as set out by the EPA.

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

This Directive sets up environmental objectives of good groundwater quantitative and chemical status, as well as ensuring a continuity to the 1980 Groundwater Directive (Directive 80/68/EEC on the protection of groundwater against pollution caused by dangerous substances) which is due to be repealed under the WFD by the end of 2013.

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

Groundwater quality standards are environmental quality standards expressed as the concentration of a particular pollutant, group of pollutants or indicator of pollution in groundwater, which should not be exceeded in order to protect human health and the environment. Annex I of the Directive sets standards for two pollutants: Nitrates - 50mg/l - and; Active substances in pesticides³¹, including their relevant metabolites, degradation and reaction products - 0,1 µg/l and 0,5 µg/l (total³²).

Irish groundwater threshold values³³ are currently in the process of being set by the EPA.

³¹ '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.

³² 'Total' means the sum of all individual pesticides detected and quantified in the monitoring procedure, including their relevant metabolites, degradation and reaction products.

³³ Threshold values are to be established by Member States for all pollutants and indicators of pollution

4.5.2 Flooding

4.5.2.1 Introduction

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

4.5.2.2 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.

4.5.2.3 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:

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.

- 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.

4.5.3 Waste Water

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

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

4.5.4 Drinking Water

The environmental baseline with regard to drinking water demand and supply is identified in Section 3 and measures have been integrated into the Plan in order to help ensure a clean and wholesome water supply.

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

4.5.5 SEOs, Indicators and Targets

The following SEOs, Indicators and Targets have been identified and developed with regard to the objectives of the above strategic actions and the environmental baseline described in Section 3.

SEO W1:	To maintain and improve, where possible, the quality of rivers
Indicator W1:	Biotic Quality Rating (Q Value)
Target W1a:	To maintain a biotic quality rating of Q4 , in line with the requirement to achieve good water status under the Water Framework Directive, by 2015
Target W1b:	To improve biotic quality ratings, where possible, to Q5

SEO W2:	To prevent pollution and contamination of ground water
Indicator W2:	Groundwater Quality Standards and Threshold Values under Directive 2006/118/EC
Target W2:	Compliance with Groundwater Quality Standards and Threshold Values under Directive 2006/118/EC

SEO W3:	To prevent development on lands which pose - or are likely to pose in the future - a significant flood risk ³⁴
Indicator W3:	Number of developments granted permission on lands which pose - or are likely to pose in the future - a significant flood risk and/or which do not comply with the mitigation measures as outlined in the Tullamore Flood Risk and Assessment Management Study (OPW, 2008)
Target W3:	Minimise developments granted permission on lands which pose - or are likely to pose in the future - a significant flood risk and/or which do not comply with the mitigation measures as outlined in the Tullamore Flood Risk and Assessment Management Study (OPW, 2008)

³⁴ As identified by the OPW in the Tullamore Flood Risk and Assessment Management (FRAM) Study 2008

SEO W4:	To serve new development with appropriate waste water treatment
Indicator W4:	Number of new developments granted permission which can be adequately served with waste water treatment over the lifetime of the Development Plan
Target W4:	New developments granted permission to be connected and adequately served by waste water treatment over the lifetime of the Development Plan

SEO W5:	To serve development within the Plan area with drinking water that is both wholesome and clean
Indicator W5:	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
Target W5:	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

4.6 Air and Climatic Factors

4.6.1 Introduction

The impact of implementing the Plan on air quality and climatic factors is determined by the impacts which the Plan has upon the traffic levels which relate to SEOs C1 and C2.

Travel is the source of most:

- Noise;
- Air emissions; and,
- Energy use (41.4% oil equivalent of final energy consumption in 2006 was

taken up by transport - sourced from Sustainable Energy Ireland's online Energy Statistics Data Bank).

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

4.6.2 Air Quality and Noise Levels

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 area's 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.

4.6.3 Climatic Factors

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

4.6.4 Noise

Noise is unwanted sound. Traffic noise alone is harming today the health of almost one third of Europeans³⁵.

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 agglomerations, using harmonised noise indicators³⁶ 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.

4.6.5 SEOs, Indicators and Targets

The following SEOs, Indicators and Targets have been identified and developed with regard to the objectives of the above strategic actions and the environmental baseline described in Section 3.

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

³⁵ 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

³⁶ [L_{den} (day-evening-night equivalent level) and L_{night} (night equivalent level)]

SEO C1:	To minimise increases in travel related greenhouse emissions to air
Indicator C1i ³⁷ :	Percentage of population within the Plan area travelling to work or school by public transport or non-mechanical means
Target C1i:	An increase in the percentage of the population travelling to work or school by public transport or non-mechanical means
Indicator C1ii ³⁸ :	Average distance travelled to work or school by the population of the Plan area
Target C1ii:	A decrease in the average distance travelled to work or school by the population of the Plan area

SEO C2:	To reduce car dependency within the Plan area by way of, inter alia, encouraging modal change from car to more sustainable forms of public transport and encouraging development which will not be dependent on private transport
The use of the SEO C2 provides a qualitative directional measure which is used to evaluate the effects of implementing the Development Plan.	

4.7 Material Assets

See other SEOs, Indicators and Targets including those under Section 4.5 Water.

4.8 Cultural Heritage

4.8.1 Archaeological Heritage

4.8.1.1 Valletta Convention 1992

The European Convention on Protection of the Archaeological Heritage known as the Valletta Convention of 1992. This was ratified by Ireland in 1997 and requires that appropriate

consideration be given to archaeological issues at all stages of the planning and development process.

4.8.1.2 National Heritage Plan for Ireland 2002

The core objective of the National Heritage Plan for Ireland 2002³⁹ is to protect Ireland's heritage. In this regard the 'polluter pays' principle and the precautionary principle are operable.

4.8.1.3 National Monuments Acts

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

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

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

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

4.8.2 Architectural Heritage

4.8.2.1 Planning and Development Acts 2000 to 2009

The Record of Protected Structures (RPS) included in the current Development Plan is legislated for under Section 51 of the Planning and Development Acts 2000-2009 and includes structures which form part of the architectural heritage and which are of special architectural,

³⁷ As measured by the Central Statistics Office

³⁸ As measured by the Central Statistics Office

³⁹ Department of Arts, Heritage, Gaeltacht and the Islands (2002) *National Heritage Plan for Ireland* Dublin: Government of Ireland

historical, archaeological, artistic, cultural, scientific, social or technical interest.

4.8.2.2 Architectural Heritage and Historic Monuments Act 1999

The National Inventory of Architectural Heritage (NIAH) is a state initiative under the administration of the DEHLG which was established on a statutory basis under the provisions of the Architectural Heritage (National Inventory) and Historic Monuments (Miscellaneous Provisions) Act 1999. Its purpose is to identify, record, and evaluate the post-1700 architectural heritage of Ireland, uniformly and consistently as an aid in the protection and conservation of the built heritage. It is intended that the NIAH provides the basis for the inclusion of particular structures in the RPS.

4.8.3 SEOs, Indicators and Targets

The following SEOs, Indicators and Targets have been identified and developed with regard to the objectives of the above strategic actions and the environmental baseline described in Section 3.

SEO CH1:	To protect the archaeological heritage of Tullamore with regard to 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
Indicator CH1:	Percentage of 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) protected
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)

SEO CH2:	To preserve and protect the special interest and character of Tullamore's architectural heritage with regard to entries to the Record of Protected Structures and their context within the surrounding landscape where relevant
Indicator CH2i:	Percentage of entries to the Record of Protected Structures (and/or their context within the surrounding landscape where relevant) protected
Indicator CH2ii:	Number of additions to the Record of Protected Structures and the number of additional ACAs
Target CH2i:	Protect entries to the Record of Protected Structures (and/or their context within the surrounding landscape where relevant)
Target CH2ii:	Make Additions to the Record of Protected Structures and make additional ACAs, where appropriate

4.9 Landscape

4.9.1 European Landscape Convention 2000

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

4.9.2 Offaly County Development Plan 2009-2015

The Offaly County Development Plan 2009-2015 contains a number of specific policies and

objectives which protect the landscape within the County including that at Tullamore and its Environs.

4.9.3 SEOs, Indicators and Targets

The following SEO, Indicator and Target have been identified and developed with regard to the objectives of the above strategic actions and the environmental baseline described in Section 3.

SEO L1:	To avoid significant adverse impacts on the landscape - especially with regard to landscapes which are identified as being highly sensitive
Indicator L1:	Number of complaints received from statutory consultees regarding avoidable impacts on the landscape - especially with regard to landscapes which are identified as being highly sensitive - resulting from development which is granted permission under the Development Plan
Target L1:	No developments permitted which result in avoidable impacts on the landscape - especially with regard to landscapes which are identified as being highly sensitive - resulting from development which is granted permission under the Development Plan

Section 5 Policy Context for a Development Plan for Tullamore Town and Environs

5.1 Introduction

Under Section 9 of the Planning and Development Acts 2000 to 2009, every planning authority must make a development plan, setting the framework for all future development in the planning authority's area for the stated period, for the whole functional area of the authority every six years. Development Plans are required to set out an overall strategy for the proper planning and sustainable development of the area in question. It is in this context in which Offaly County Council - the planning authority for the Tullamore Environs area - and Tullamore Town Council - the planning authority for the Tullamore Town area - have adopted the Tullamore Town and Environs Development Plan.

The 2010-2016 Plan replaces the 2004-2010 Plan and it is intended to provide for the proper planning and sustainable development for Tullamore and its Environs for a duration of six years, unless amended.

The Plan has been prepared in accordance with the requirements and the various provisions of the Planning and Development Acts 2000 to 2009 as amended and the Planning and Development (Strategic Environmental Assessment Regulations) 2004.

5.2 Structure and Content

The Development Plan consists of:

- The Written Statement; and,
- A volume of Appendices.

The Written Statement contains the following 15 chapters:

- Chapter 1: Introduction and Vision
- Chapter 2: Tullamore - Midlands Linked Gateway
- Chapter 3: Context and Challenges
- Chapter 4: Overall Strategy
- Chapter 5: Masterplans

- Chapter 6: Employment, Economy and Enterprise
- Chapter 7: Town Centre, Renewal and Retail
- Chapter 8: Transport, Accessibility and Movement
- Chapter 9: Tourism
- Chapter 10: Infrastructure and Environment
- Chapter 11: Community, Social, Cultural and Sports Development
- Chapter 12: Built Heritage
- Chapter 13: Natural Heritage
- Chapter 14: Development Standards
- Chapter 15: Zoning Matrix and Land-Use Zoning Map

The written statement is to be read in conjunction with the following 4 appendices:

- Offaly County Housing Strategy (Adopted 2008)
- Offaly County Retail Strategy (Adopted 2009)
- Tullamore Town Record of Protected Structures
- SEA Environmental Report (this document)

5.3 Vision and Aim

The Overall Vision of the Tullamore Town and Environs Development Plan 2010-2016 is that all people in Offaly will enjoy equal opportunity and a good quality of life - that they will look forward to the future with confidence while cherishing the past.

The Councils' aim is to apply this vision in terms of its land use and planning implications through the implementation of the Town and Environs Development Plan. For the Plan, this means having regard to:

- How land use and planning decisions will impact on quality of life for the people of Tullamore;
- How such decisions will impact on Tullamore as a location to live and work of choice, not necessity; and,

- How such decisions will impact on the need to protect Tullamore's natural and built assets.

It is intended that the vision acts as a 'prompt' for all strategies, policies and objectives of the plan.

The Overall Aim of the Development Plan is:

- To set out a framework for the physical development of the Linked Gateway town of Tullamore and its Environs, so that growth may take place in a sensitive, co-ordinated and orderly manner, while at the same time conserving the town's character and intrinsic heritage value.

5.4 Alternatives

Sections 6 and 7 of this report identify, describe and evaluate different alternative scenarios for the future development of the Plan area, taking into account the relevant land use strategic actions (see Section 5.5), the SEOs identified in Section 4 as well as the geographical scope of Tullamore and its Environs.

The evaluation of the alternatives resulted in the identification of potential impacts and led to the emergence of a preferred alternative for the Draft Plan which went on public display.

5.5 Interactions with Relevant Planning Policy

5.5.1 Introduction

The Plan sits within a hierarchy of land use forward planning strategic actions. It must comply with higher level strategic actions and will, in turn, guide lower level strategic actions.

5.5.2 National Development Plan 2007-2013

The National Development Plan 2007-2013 (NDP) is designed to underpin the development of a dynamic competitive economy over the period 2007 - 2013. It envisages a total investment of €184 billion over 7 years to 'secure the further transformation of our country

socially and economically within an environmentally sustainable framework'.

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

5.5.3 National Spatial Strategy 2000-2020

The National Spatial Strategy 2000-2020 (NSS) is a 20-year planning framework for the entire Country to guide policies, programmes and investment. It seeks to promote a better balance of social, economic and physical development between the Regions.

The focus of the NSS is on fostering a closer match between where people live with where they work. The NSS established a detailed sustainable planning framework for strategic spatial planning to ensure development is targeted at the most appropriate locations. The NSS places emphasis on the creation of high quality living environments through urban design and the integration of social and community amenities.

In order to promote sustainable development and allow for the public transport system to function more effectively - as promoted by the NSS - it is essential to consolidate the physical growth of Tullamore. This can be achieved through the development of greenfield lands and vacant, derelict and underutilised lands, in particular where they are in close proximity to public transport routes.

5.5.4 Sustainable Development: A Strategy for Ireland 1997

This Strategy provides a framework for the achievement of sustainable development at local level and calls on planning authorities to incorporate the principles of sustainability into Development Plans.

5.5.5 Midland Regional Planning Guidelines 2004-2016

Ireland is divided into eight regional forward planning regions, Dublin, Midlands, Mid East, Mid West, South East, South West, West and

Border, each with its own regional planning authority composed of Elected Members selected by the constituent local government councils. Regional planning authorities are required, under the Planning and Development Regulations 2001 to 2009, to draw up regional planning guidelines (RPGs), long term strategic planning frameworks, for their relevant region. RPGs must have regard to the National Spatial Strategy.

Tullamore and Environs is located within the Midland Regional Planning Authority area for which the Midlands Regional Planning Guidelines 2004 (MRPGs) have been prepared. These Guidelines were in the process of being reviewed during the adoption of the Development Plan.

5.5.6 Offaly County Development Plan 2009- 2015

The Offaly County Development Plan 2009-2015 aims to achieve a strategic and coordinated plan-led approach to the future development of the County. Therefore, strategic planning issues relating to Tullamore are also included in the County Plan.

The Councils prepared the Tullamore Town and Environs Development Plan 2010-2016 in a manner that is consistent with the Offaly County Development Plan 2009-2015 and related policy documents such as the County Housing Strategy and the County Retail Strategy.

It is extremely important that the Plan conforms to these documents as they set strategies, policies, objectives and an overall vision for the County as whole, which is a key part to the future development of Tullamore. The Plan embraces Tullamore's status as part of a Linked Gateway and its position at the pinnacle of the County Settlement Hierarchy.

5.6 Environmental Protection Objectives

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

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.

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

Section 6 Description of Alternative Plan Scenarios

6.1 Introduction

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

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

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

The alternative scenarios are evaluated in Section 7 resulting in the identification of potential impacts and informing the selection of a preferred alternative for the Development Plan. The policies and objectives which are required to realise the preferred alternative are evaluated in Section 8.

Mitigation measures which attempt to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the preferred alternative are recommended for inclusion in Section 9.

6.2 Excluding the 'Do-Nothing' Scenario

As the 2004 Development Plan had to be reviewed and replaced by a new Development Plan under legislation, a 'do-nothing' alternative is not considered nor is it required to be by the SEA Directive.

Annex I of the SEA Directive specifies that information should be provided in the environmental report on *inter alia* 'the relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme'. Section 3 identifies the evolution of each

component of the environment in the absence of implementing the Plan.

6.3 Identification and Description of Alternative Scenarios

6.3.1 Introduction

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

6.3.2 Alternative Scenario 1: *Gateway Approach*

Alternative Scenario 1: *Gateway Approach* (see Figure 6.1) represents the land use plan for the town and environs should the recently adopted variation no. 4 to the Tullamore Town and Environs Development Plan 2004-2010 be retained. The variation represented a measured and coherent response to the designation of Tullamore as part of the Midlands Linked Gateway Town. In land use terms, this scenario includes 4 new masterplan areas for the town which would be developed in a phased manner in order to accommodate targeted sequential population growth over the period of the plan and beyond to 2020 (in line with the Midlands Regional Planning Guidelines 2004 targets). The promotion of these 4 new areas for growth in the town is a key element for the focus of this scenario with consolidation and enhancement of the town centre. Under this scenario 4 new masterplans would be developed to accommodate a higher level of new development and deliver the maximum quantitative efficiency of new population and

associated infrastructure (hard and soft), facilities and neighbourhood communities. The Masterplan Areas identified under this scenario include Grand Canal Quarter; Tullamore Southern Environs; Tullamore Northern Environs and Tullamore North-Eastern Environs. This scenario allows for a greater degree of coordination of employment, public infrastructure, amenities, community facilities, schools, public transport etc. through a plan-led approach.

6.3.3 Alternative Scenario 2: *Minimalist Approach*

Alternative Scenario 2: *Minimalist Approach* (see Figure 6.2) examines the retention of the current zoning for the town and environs (as per Variation no. 4) but removes the final phase from each of the Masterplan Areas i.e. a reduction in the amount of land zoned. The growth of the town, in its role as part of the linked Gateway, may be inhibited by such a scenario as it would not focus on accommodating the needs of the Linked Gateway Town, as the masterplans intended, but rather, reduce the contribution that Tullamore would make to the Midlands Gateway and subsequently the wider county area and the region. This scenario would restrain the masterplan areas from attaining a sustainable mix of population, employment and neighbourhood services and the associated services required to sustain new communities.

6.3.4 Alternative Scenario 3: *Market-Driven Approach*

Alternative Scenario 3: *Market-Driven Approach* (see Figure 6.3) includes additional lands to be zoned which further extend the urban footprint of the town to the extreme boundaries of the environs. The additional lands would comprise a mix of uses including residential, business/employment, public/ community/ educational and open space. This scenario is likely to detract from the town centre and existing areas of employment as increased available large scale land parcels become available for business/employment uses. The focus in this scenario would be more market driven and developer led and may lead to an unbalanced development pattern within the town and environs. In addition as these additional lands were not part of the overall masterplan approach, the sequential development of the

town would be hindered as ad hoc development could be accommodated. This scenario would not support the overall vision for the town of improving the quality of life for people living in Tullamore.

6.3.5 Alternative Scenario 4: *Precautionary Approach*

Alternative Scenario 4: *Precautionary Approach* (see Figure 6.4) involves retaining the current land use zoning, aside from those areas identified as being 'at risk' from flooding under the Tullamore Flood Risk Assessment and Management Study (FRAM) as undertaken by the OPW (2008). In addition, this scenario would involve 'dezoning' lands that are affected by flooding to the east (developed areas - Whitehall and Riverside - and undeveloped areas) and to the west (undeveloped area) of the town. The Tullamore FRAM has identified mitigation measures to avoid against flooding in the case of undeveloped land and has also identified a programme of measures to be implemented to mitigate against flooding in developed areas.

Should this scenario be adopted, the floodplains identified would not be developed. However this scenario would not be in a position to provide for the needs of a linked gateway town, in that dezoning lands designated for development use including business/employment use would negatively impact on the potential of accommodating employment generating uses in a linked gateway town. Dezoning lands would also impact on the Masterplan areas, in particular the Grand Canal Quarter, as the lands were initially identified as part of a strategic response to Tullamore's designation as part of the Midlands Linked Gateway. Further development of the town would also be jeopardised in that dezoning lands in the floodplain would create a fragmented and disjointed urban footprint and would have the potential of undermining the principle of connectivity and hindering accessibility within the town.

The FRAM addresses the issues that arise regarding development in the floodplains and provides a series of measures to be implemented, should lands be developed. Where land is already developed, the FRAM has clear recommendations to implement measures to avoid against further flooding. Whilst the floodplains would be preserved, this scenario

would not lead to a successful, prosperous and networked linked gateway town. Through implementing the provisions of the FRAM, a balance can be reached which reflects a precautionary approach without having to dezone lands.

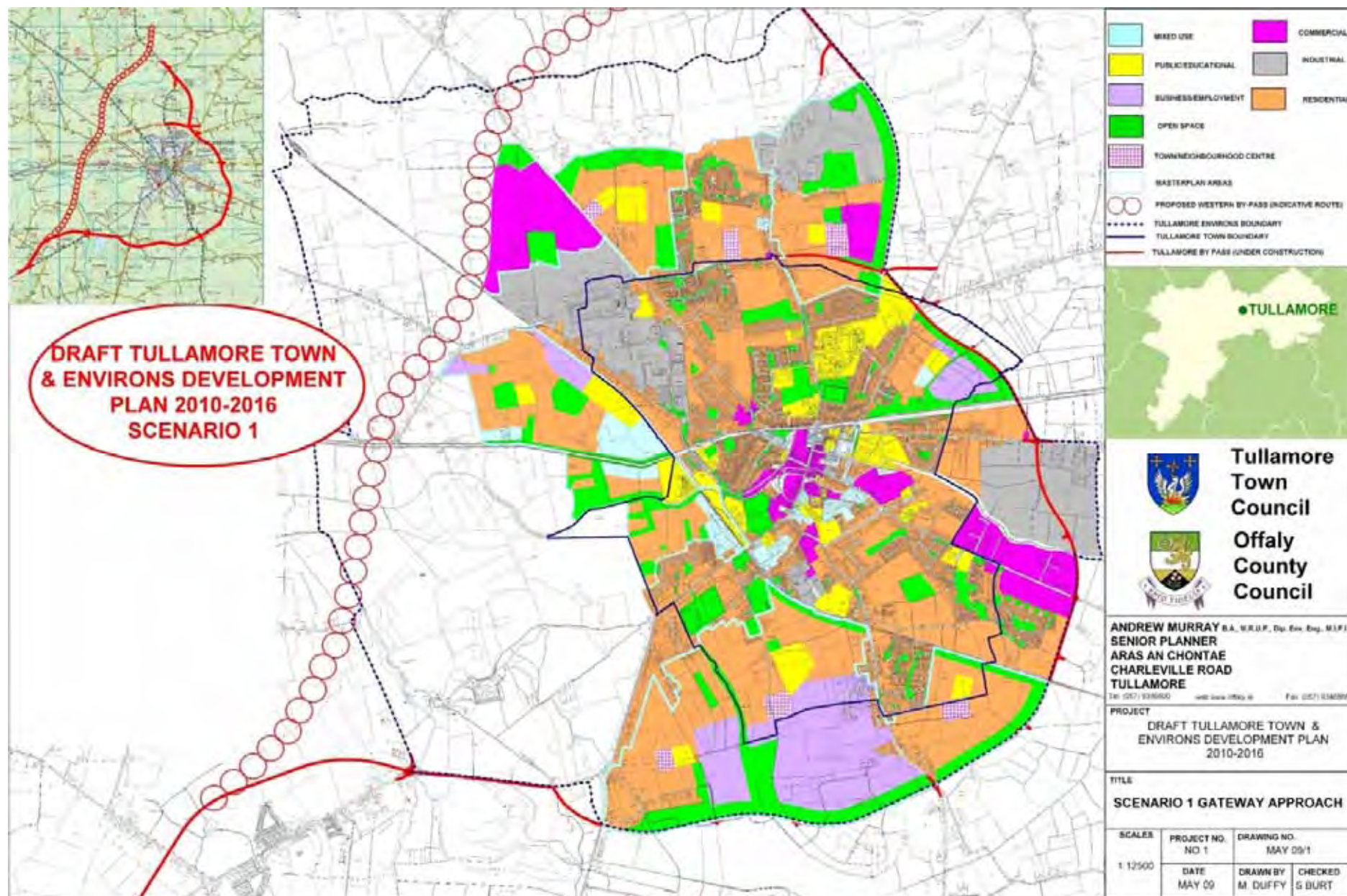


Figure 6.1 Alternative Scenario 1: *Gateway Approach*

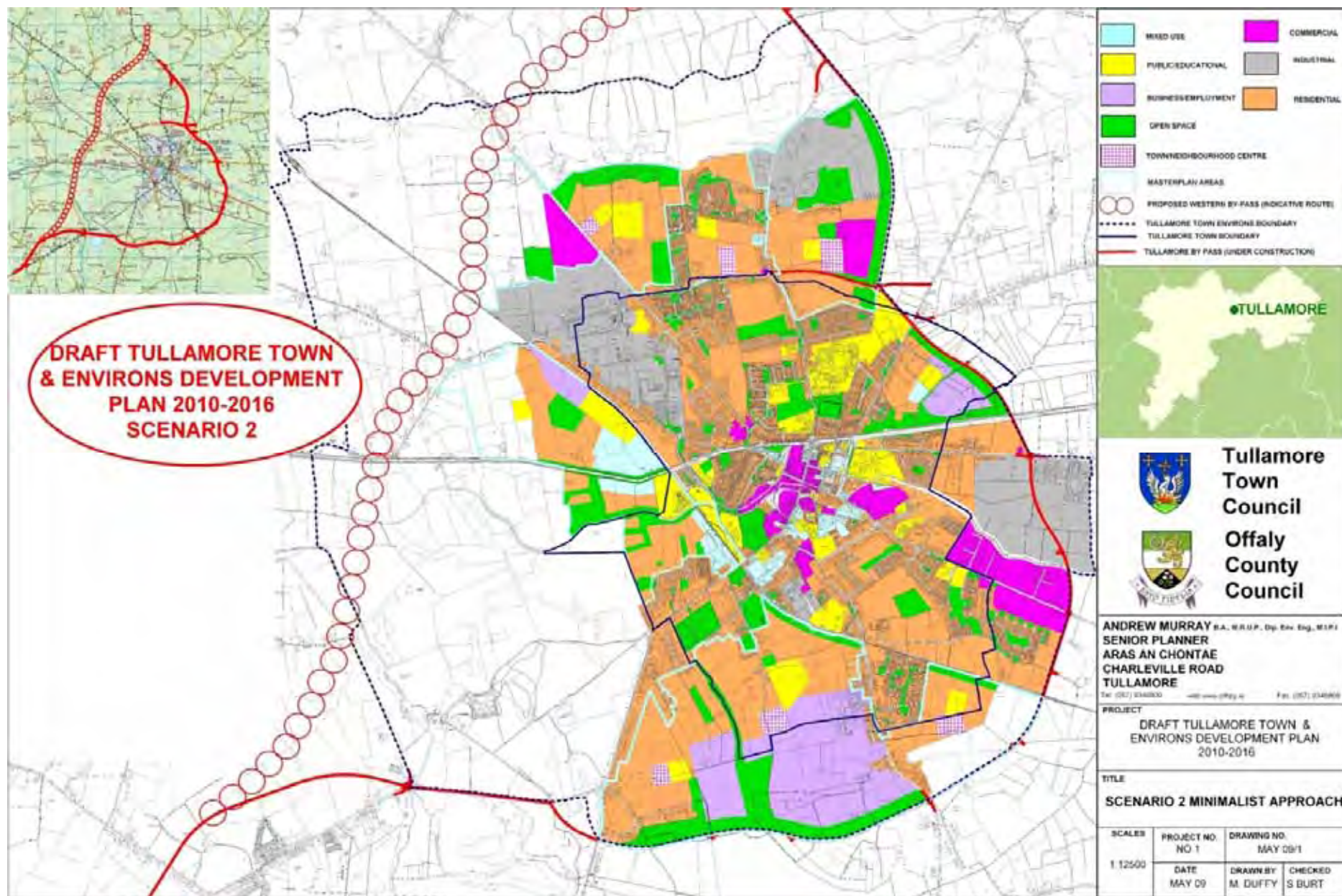


Figure 6.2 Alternative Scenario 2: *Minimalist Approach*

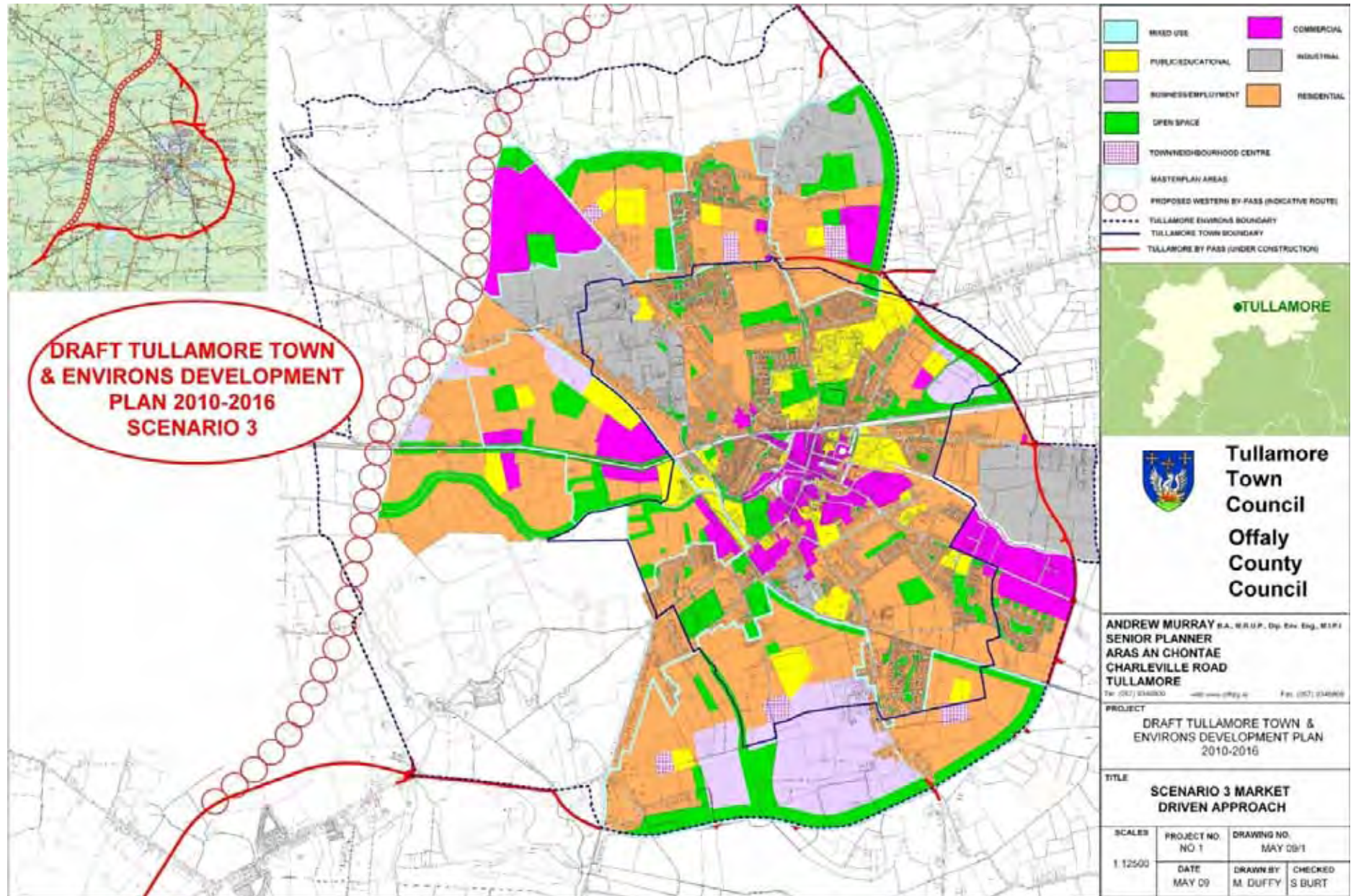


Figure 6.3 Alternative Scenario 3: *Market-Driven Approach*

CAAS for Tullamore Town Council and Offaly County Council

Section 7 Evaluation of Alternative Plan Scenarios

7.1 Introduction

This section determines the relative merits of a range of 4 alternative scenarios for the future development of Tullamore and Environs. This determination sought to understand whether each alternative was likely to improve, conflict with or have a neutral interaction with the environment at Tullamore.

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

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

7.2 Methodology

7.2.1 Existing Environment and Overlay Mapping

In order to identify the extent to which environmental sensitivities are likely to be impacted upon by implementation of the 4 scenarios, use was made of the environmental baseline provided within Section 3.

Overlay mapping (which weighs environmental sensitivities and maps them overlapping each other as shown under Section 3.10), in particular Figure 3.30, is used for this purpose.

7.2.2 Strategic Environmental Objectives (SEOs)

Based on an understanding of the existing and emerging environmental conditions in Tullamore a series of SEOs were identified and developed in order to assess the likely environmental effects which would be caused by implementation of each of the 4 alternative scenarios described in Section 6. The alternatives are evaluated using compatibility criteria (see Table 7.1) in order to determine how they are likely to affect the status of these SEOs.

Table 7.2 brings together all the SEOs which have been developed from international, national and regional policies which generally govern environmental protection objectives.

The SEOs and the alternative scenarios were arrayed against each other to identify which interactions - if any - would cause impacts on specific components of the environment.

Where the appraisal identified a likely conflict with the status of an SEO the relevant SEO code was entered into the conflict column - e.g. B1 which stands for SEO likely to be affected - in this instance 'to avoid loss of relevant habitats, geological features, species or their sustaining resources in designated ecological sites'.

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

SEO Code	SEO
B1	To avoid loss of relevant habitats, geological features, species or their sustaining resources in designated ecological sites
B2	To avoid significant adverse impacts, including direct, cumulative and indirect impacts, to relevant habitats, geological features, species or their sustaining resources in designated ecological sites by development within or adjacent to these sites
B3	To sustain, enhance or - where relevant - prevent the loss of ecological networks or parts thereof which provide significant connectivity between areas of local biodiversity
HH1	To protect human health from hazards or nuisances arising from exposure to incompatible landuses
S1	Maximise the sustainable re-use of brownfield lands, and maximise the use of the existing built environment rather than developing greenfield lands
W1	To maintain and improve, where possible, the quality of rivers
W2	To prevent pollution and contamination of ground water
W3	To prevent development on lands which pose - or are likely to pose in the future - a significant flood risk
W4	To serve new development with appropriate waste water treatment
W5	To serve development within the Plan area with drinking water that is both wholesome and clean
C1	To minimise increases in travel related greenhouse emissions to air
C2	To reduce car dependency within the Plan area by way of, inter alia, encouraging modal change from car to more sustainable forms of public transport and encouraging development which will not be dependent on private transport
CH1	To protect the archaeological heritage of Tullamore with regard to 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
CH2	To preserve and protect the special interest and character of Tullamore's architectural heritage with regard to entries to the Record of Protected Structures and their context within the surrounding landscape where relevant
L1	To avoid significant adverse impacts on the landscape - especially with regard to landscapes which are identified as being highly sensitive

Table 7.2 Strategic Environmental Objectives (SEOs)⁴⁰

⁴⁰ Strategic Environmental Objectives (SEOs) are methodological measures which are developed from international and national policies which generally govern environmental protection objectives and against which the environmental effects of the Plan were tested. The SEOs are used as standards against which the provisions of the Plan were evaluated in order to help identify areas in which significant adverse impacts are likely to occur, if unmitigated against.

7.3 Evaluation against Overlay Mapping

Significant Effects [i.e. High, Extreme and Acute] are highlighted below.

Vulnerability Area	Area (km ²) affected	% of Vulnerability Areas most likely to experience development pressure
Low	0.15	1.23
Moderate	11.42	90.37
Elevated	0.9	7.19
High	0.13	1.04
Extreme	0.02	0.16
Acute	<0.01	0.01
Total	12.62	100

Table 7.3 Quantification of Environmentally Vulnerable Areas most likely to be significantly affected by Scenario 1: *Gateway Approach* [i.e. 0.16 km² or 1.21% of areas of vulnerability]

Vulnerability Area	Area (km ²) affected	% of Vulnerability Areas most likely to experience development pressure
Low	0.16	1.31
Moderate	10.66	89.94
Elevated	0.88	7.46
High	0.13	1.11
Extreme	0.02	0.17
Acute	<0.01	0.01
Total	11.85	100

Table 7.4 Quantification of Environmentally Vulnerable Areas most likely to be significantly affected by Scenario 2: *Minimalist Approach* [i.e. 0.16 km² or 1.29% of areas of vulnerability]

Vulnerability Area	Area (km ²) affected	% of Vulnerability Areas most likely to experience development pressure
Low	0.15	1.14
Moderate	12.04	88.24
Elevated	0.99	7.24
High	0.16	1.16
Extreme	0.30	2.21
Acute	<0.01	0.01
Total	13.64	100

Table 7.5 Quantification of Environmentally Vulnerable Areas most likely to be significantly affected by Scenario 3: *Market Driven Approach* [i.e. 0.47 km² or 3.38% of areas of vulnerability]

Vulnerability Area	Area (km ²) affected	% of Vulnerability Areas most likely to experience development pressure
Low	0.16	1.26
Moderate	11.38	92.08
Elevated	0.71	5.72
High	0.09	0.77
Extreme	0.02	0.16
Acute	<0.01	0.01
Total	12.36	100

Table 7.6 Quantification of Environmentally Vulnerable Areas most likely to be significantly affected by Scenario 4: *Precautionary Approach* [i.e. 0.12 km² or .94% of areas of vulnerability]

Tables 7.3 to 7.6 quantify the vulnerability areas which are likely to be impacted upon by the areas of Scenarios 1 to 4 which are most likely to come under development pressure. These areas were mapped (see Figures 7.1 to 7.4) and calculated using GIS software.

The measurements indicate that:

- Scenario 3 would be likely to have a greater impact upon each of the more of the higher vulnerability classes (0.47 km² or 3.38%) i.e. *High Vulnerability, Extreme Vulnerability and Acute Vulnerability* to a greater extent than all the other scenarios (0.16km² or 1.14%, 0.16 km² or 1.21%, 0.12 km² or 1.00%);
- Scenario 3 would be likely to result in significantly more adverse environmental impacts than the other scenarios; and,
- Scenarios 1 and 2 cover similar extents of higher vulnerability areas as each other (0.16km²) with Scenario 4 covering the smallest extent of higher vulnerability areas (0.12km²).

7.4 Evaluation against SEOs

	Likely to Improve status of SEOs	Probable Conflict with status of SEOs - unlikely to be mitigated	Potential Conflict with status of SEOs - would be mitigated	<u>Uncertain</u> interaction with status of SEOs	<u>Neutral</u> Interaction with status of SEOs	<u>No Likely</u> interaction with status of SEOs
Scenario 1: <i>Gateway Approach</i>	CH1 CH2		B1 B2 B3 HH1 S1 W1 W2 C1 C2 W4 W5 CH1 CH2 W3	L1		
Scenario 2: <i>Minimalist Approach</i>	CH1 CH2		B1 B2 B3 S1 W1 W2 C1 C2 W4 W5 CH1 CH2 W3	L1		
Scenario 3: <i>Market-Driven Approach</i>	CH1 CH2	B1 B2	B3 S1 W1 W2 C1 C2 W4 W5 CH1 CH2 W3	L1		
Scenario 4: <i>Precautionary Approach</i>	CH1 CH2		B1 B2 B3 S1 W1 W2 W3 C1 C2 W4 W5 CH1 CH2	L1		

Table 7.7 Evaluation of Alternative Scenarios against SEOs

Table 7.7 provides the evaluation of Alternative Scenarios 1, 2, 3 and 4 against the Strategic Environmental Objectives (SEOs).

Note that with regard to Scenarios 1, 2 and 3, conflicts between new development and SEO W3 (which relates to avoiding flood risk) could be mitigated by complying with measures outlined in the Tullamore Flood Risk and Assessment Management Study (OPW, 2008) and with the Flood Risk Management approach set out in the DEHLG's Planning Guidelines on the Planning System and Flood Risk Management.

7.5 Summary; the Alternative Scenario for the Draft Development Plan

The Alternatives that were examined were produced and evaluated at an earlier - more embryonic - stage to facilitate the evaluation and selection of a plan - having regard, *inter alia* to environmental consequences.

The Draft Development Plan that emerged from the Plan preparation process was Scenario 1 – this is one of the Scenarios with the least impact on the environment and one of the highest conformances with relevant national and regional planning objectives. The assessment showed that a market-led approach – Scenario 3 - had the potential to give rise to environmental effects on nearly 3 times more vulnerable lands than this scenario and was regarded as the least environmentally compatible version.

Note that all scenarios [including Scenario 4] examined appear to have lands prone to flooding that are zoned for development.

7.6 The Adopted Development Plan

A number of relatively minor changes were made to the land use zoning map for Scenario 1 – the Draft Development Plan – before the Plan was adopted.

The evaluation for the adopted Development Plan against the SEOs is the same as the evaluation for Scenario 1 – the Draft Development Plan – against the SEOs.

The evaluation for the adopted Development Plan against the Overlay Mapping is slightly different to the evaluation for Scenario 1 – the Draft Development Plan – against this Mapping. A comparison of both of these evaluations can be made by examining the tables overleaf.

Both the Draft Development Plan and the adopted Development Plan would be likely to have conflicts to the same extent with the higher (i.e. *High Vulnerability, Extreme Vulnerability and Acute Vulnerability*) vulnerability classes (0.16km²). The adopted Development Plan would be likely to conflict with marginally less areas of vulnerability (12.48km²) than the Draft Development Plan (12.62km²).

Vulnerability Area	Area (km ²) affected	% of Vulnerability Areas most likely to experience development pressure
Low	0.15	1.23
Moderate	11.42	90.37
Elevated	0.9	7.19
High	0.13	1.04
Extreme	0.02	0.16
Acute	<0.01	0.01
Total	12.62	100

Table 7.8 Quantification of Environmentally Vulnerable Areas most likely to be significantly affected by Scenario 1: *Gateway Approach* [i.e. 0.16 km² or 1.21% of areas of vulnerability]

Vulnerability Area	Area (km ²) affected	% of Vulnerability Areas most likely to experience development pressure
Low	0.13	1.08
Moderate	11.33	90.76
Elevated	0.87	6.94
High	0.13	1.05
Extreme	0.02	0.16
Acute	<0.01	0.01
Total	12.48	100

Table 7.9 Quantification of Environmentally Vulnerable Areas most likely to be significantly affected by Scenario 1: *Gateway Approach* [i.e. 0.16 km² or 1.22% of areas of vulnerability]

With the integration of appropriate mitigation measures (including those identified in Section 9 of this report) potential adverse environmental effects which could arise as a result of implementing this scenario would be likely to be avoided, reduced or offset.

Scenario 1 was chosen to be developed for the Development Plan by the plan-making team and put on public display and adopted – with amendments – by the Elected Members having regard to both:

1. The environmental effects which were identified by the Strategic Environmental Assessment; and,
2. Planning - including social and economic - effects.

The land use zoning map from the adopted Development Plan can be seen at Figure 7.5.

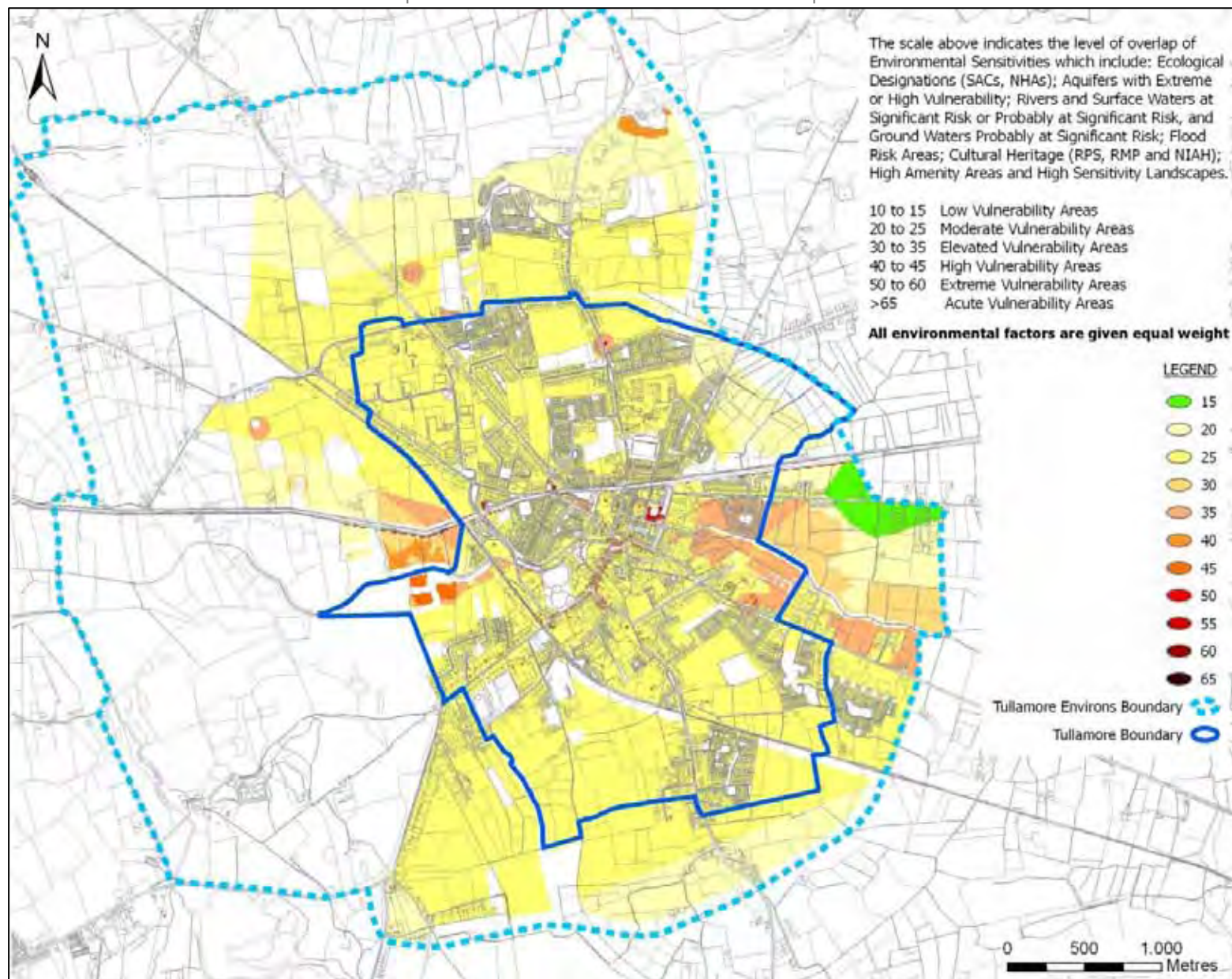


Figure 7.1 Overlay of Environmental Sensitivity Areas most likely to experience development pressure under Scenario 1: *Gateway Approach*

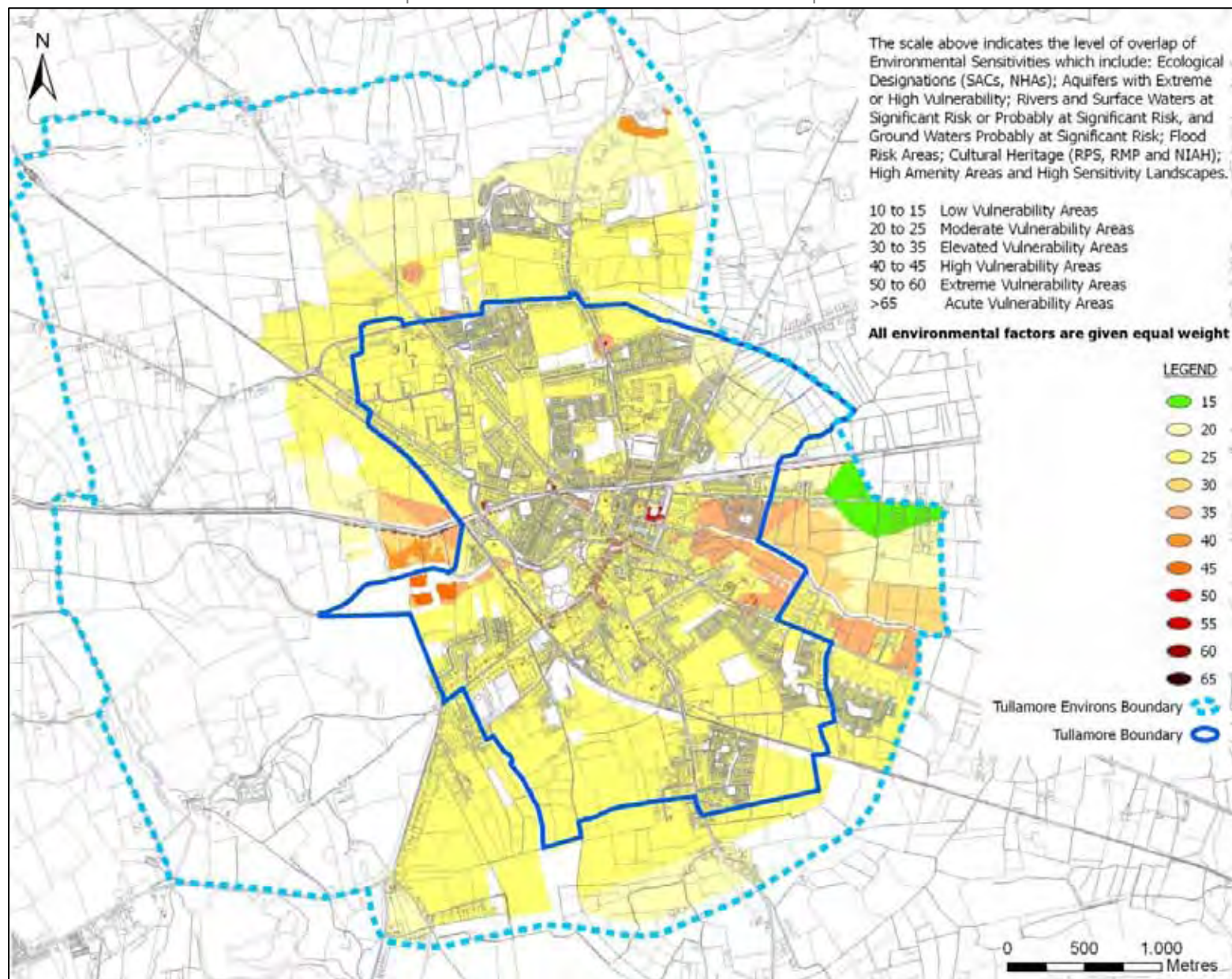


Figure 7.2 Overlay of Environmental Sensitivity Areas most likely to experience development pressure under Scenario 2: *Minimalist Approach*

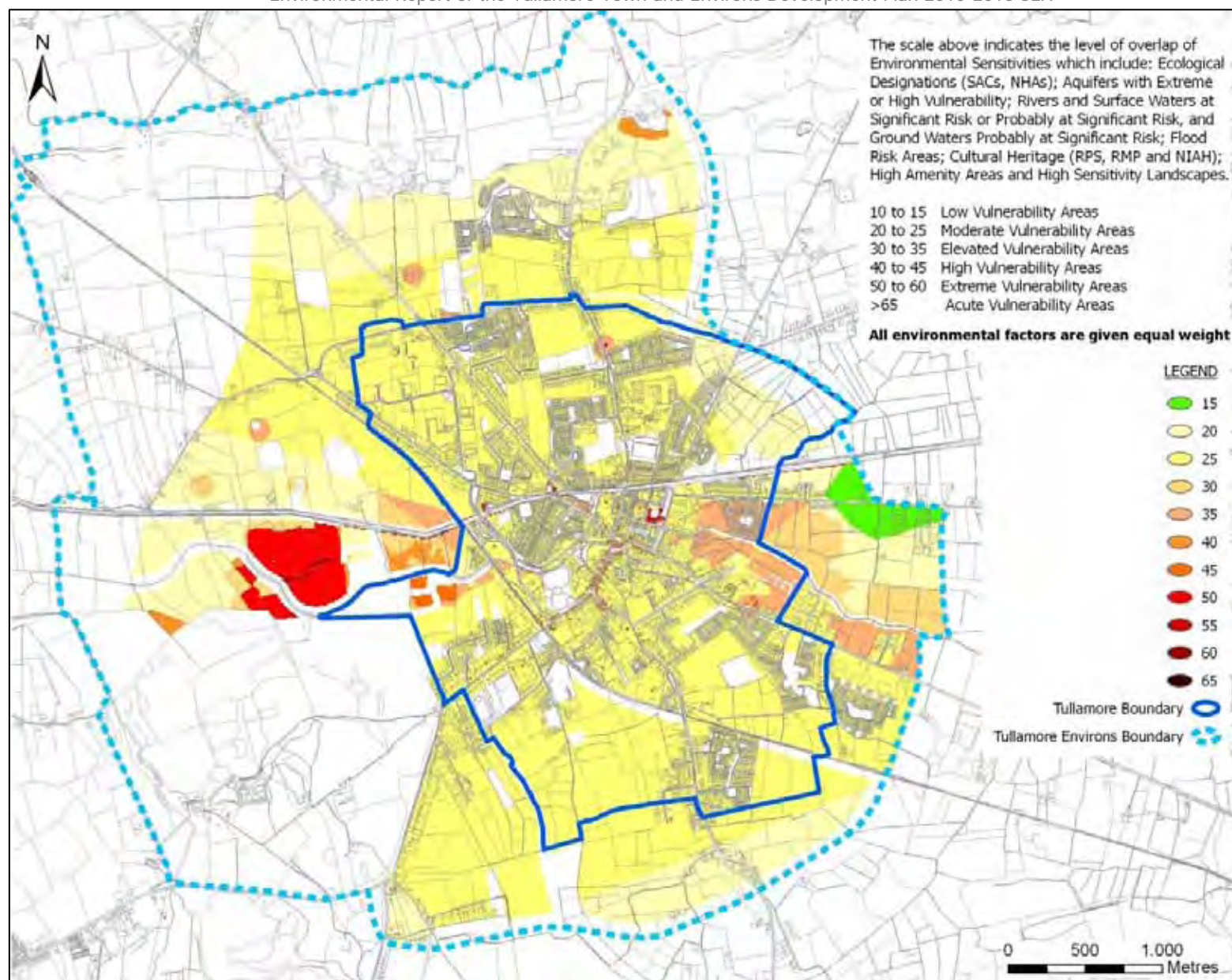


Figure 7.3 Overlay of Environmental Sensitivity Areas most likely to experience development pressure under Scenario 3: *Market-Driven Approach*

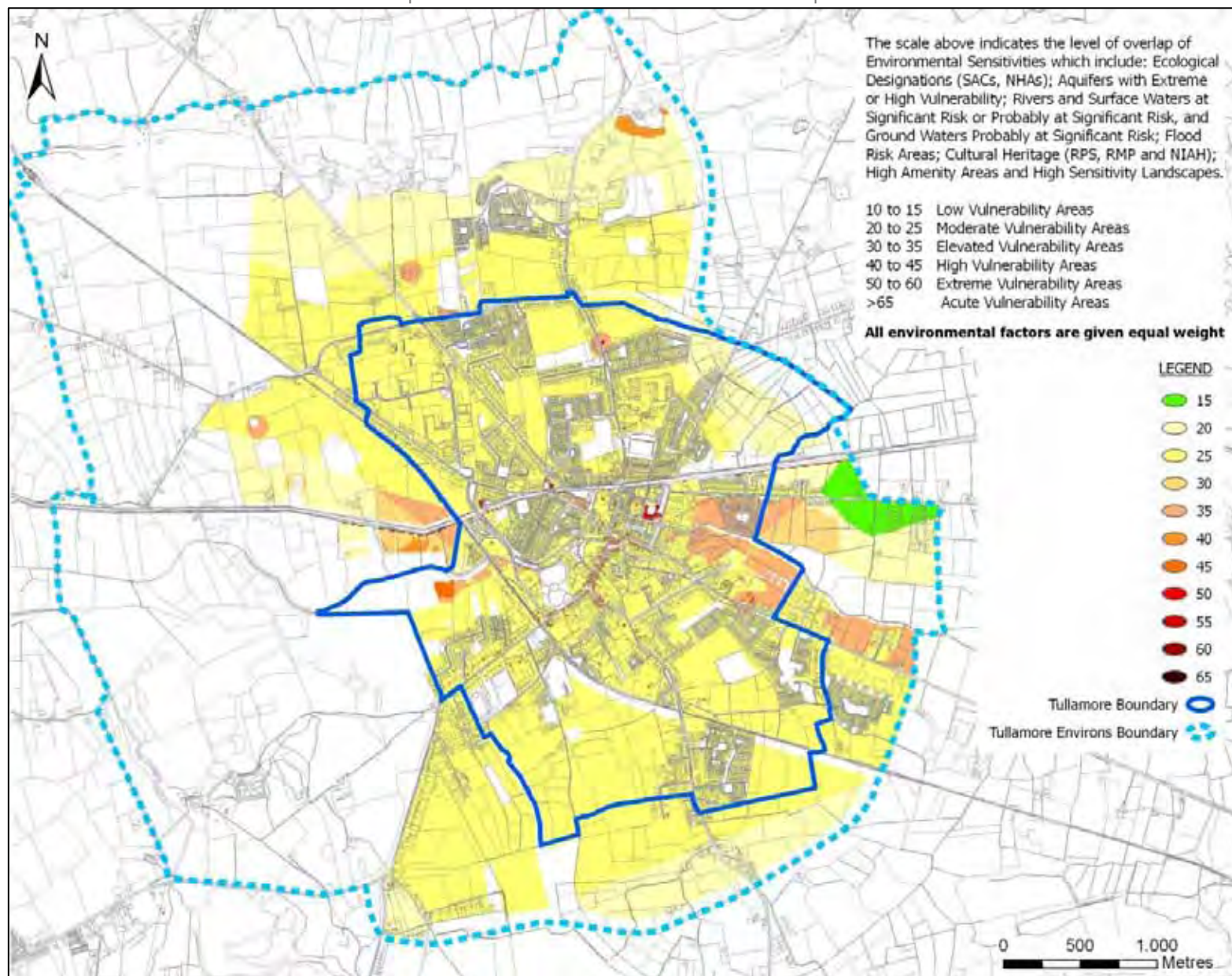


Figure 7.4 Overlay of Environmental Sensitivity Areas most likely to experience development pressure under Scenario 4: *Precautionary Approach*

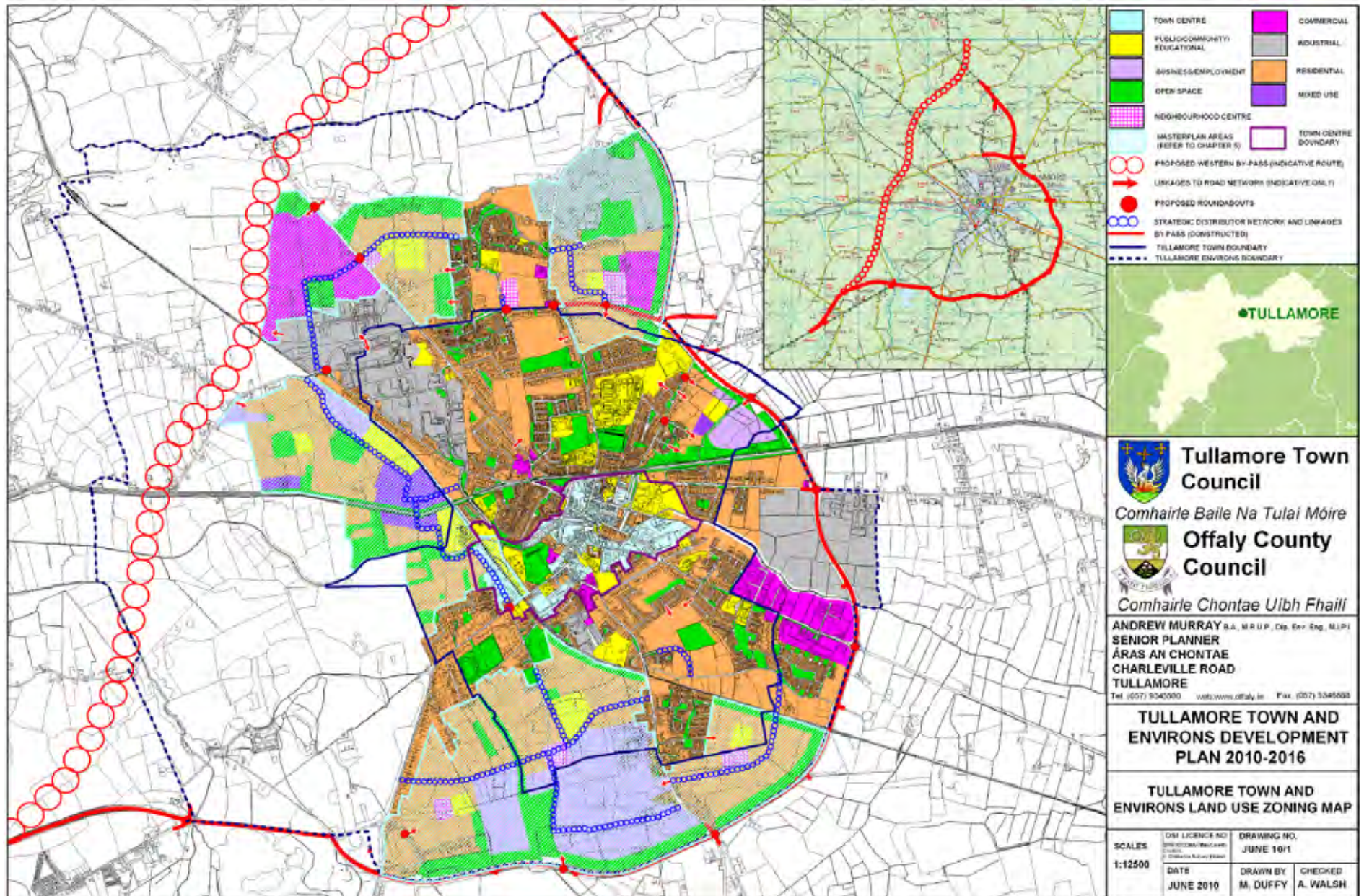


Figure 7.5 Land Use Zoning Map from the adopted Plan

Section 8 Evaluation of Plan Provisions

8.1 Methodology

This section evaluates the Plan's aims, policies and objectives. Strategic Environmental Objectives (SEOs) are used as outlined under Section 7.2 in order to evaluate the relevant measures of the Plan. Use has been made of the environmental baseline descriptions and the maps of the individual components provided in Section 3 for this purpose.

The interactions between the SEOs and the policies and objectives of the Plan determine the effects of implementing the Plan. These effects include secondary, cumulative, synergistic, short, medium and long-term permanent and temporary, positive and negative effects.

Table 8.1 brings together all the SEOs which have been developed from international, national and regional policies which generally govern environmental protection objectives.

Note on uncertainty:

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

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

Note on Evaluation of Indicative Western By-pass Route Corridor:

It is proposed to develop a bypass to the west of Tullamore. This will complete the series of routes that bypass Tullamore. No specific route - other than an indicative study corridor - is available for evaluation.

The proposal contributes the final portion of a series of roads to bypass the Town from each side. As such the general location to the west of the Town is predetermined.

In accordance with the principle of subsidiarity, evaluation of environmental effects will take place in accordance with established practice for road projects, namely that a series of alternatives will be examined along the study corridor of its environs and that an EIS will be proposed for the selected route option.

Accordingly no detailed evaluation is provided here. Should the project proceed, the project would be required to comply with the provisions of Part 8 of the Planning and Development Acts 2000 to 2009.

Note on interactions between Plan provisions and SEO W3:

Conflicts between Plan provisions and SEO W3 (which relates to avoiding flood risk) could be mitigated by complying with measures outlined in the Tullamore Flood Risk and Assessment Management Study (OPW, 2008) although it is uncertain as to whether new development would be in compliance with the Flood Risk Management approach set out in the DEHLG's Planning Guidelines on the Planning System and Flood Risk Management.

SEO Code	SEO
B1	To avoid loss of relevant habitats, geological features, species or their sustaining resources in designated ecological sites
B2	To avoid significant adverse impacts, including direct, cumulative and indirect impacts, to relevant habitats, geological features, species or their sustaining resources in designated ecological sites by development within or adjacent to these sites
B3	To sustain, enhance or - where relevant - prevent the loss of ecological networks or parts thereof which provide significant connectivity between areas of local biodiversity
HH1	To protect human health from hazards or nuisances arising from exposure to incompatible landuses
S1	Maximise the sustainable re-use of brownfield lands, and maximise the use of the existing built environment rather than developing greenfield lands
W1	To maintain and improve, where possible, the quality of rivers
W2	To prevent pollution and contamination of ground water
W3	To prevent development on lands which pose - or are likely to pose in the future - a significant flood risk
W4	To serve new development with appropriate waste water treatment
W5	To serve development within the Plan area with drinking water that is both wholesome and clean
C1	To minimise increases in travel related greenhouse emissions to air
C2	To reduce car dependency within the Plan area by way of, inter alia, encouraging modal change from car to more sustainable forms of public transport and encouraging development which will not be dependent on private transport
CH1	To protect the archaeological heritage of Tullamore with regard to 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
CH2	To preserve and protect the special interest and character of Tullamore's architectural heritage with regard to entries to the Record of Protected Structures and their context within the surrounding landscape where relevant
L1	To avoid significant adverse impacts on the landscape - especially with regard to landscapes which are identified as being highly sensitive

Table 8.1 Strategic Environmental Objectives (SEOs)⁴¹

⁴¹ Strategic Environmental Objectives (SEOs) are methodological measures which are developed from international and national policies which generally govern environmental protection objectives and against which the environmental effects of the Plan were tested. The SEOs are used as standards against which the provisions of the Plan were evaluated in order to help identify areas in which significant adverse impacts are likely to occur, if unmitigated against.

8.2 Chapters 1 & 2: Introduction and Vision & Tullamore - Midlands Linked Gateway Town

	Likely to <u>Improve</u> status of SEOs	Probable <u>Conflict</u> with status of SEOs- unlikely to be mitigated	Potential <u>Conflict</u> with status of SEOs- likely to be mitigated	<u>Uncertain</u> interaction with status of SEOs	<u>Neutral</u> Interaction with status of SEOs	<u>No Likely</u> interaction with status of SEOs
Overall Vision						
<p>The Offaly County Development Strategy and the Offaly County Council Corporate Strategy share the same “vision statement”, and the Councils’ aim is to apply this vision in terms of its land use and planning implications through the implementation of this Town and Environs Development Plan. It reads:</p> <p>That all people in Offaly will enjoy equal opportunity and a good quality of life – that they will look forward to the future with confidence while cherishing the past.</p> <p>For Tullamore Town and Environs Development Plan 2010-2016, this means having regard to:</p> <p>(i) How land use and planning decisions will impact on quality of life for the people of Tullamore.</p> <p>(ii) How such decisions will impact on Tullamore as a location to live and work of choice, not necessity.</p> <p>(iii) How such decisions will impact on the need to protect Tullamore’s natural and built assets.</p>	CH1 CH2		B1 B2 B3 HH1 S1 W1 W2 C1 C2 W4 W5 CH1 CH2 W3	L1		
Overall Aim						
To set out a framework for the physical development of the of Linked Gateway town of Tullamore and its Environs, so that growth may take place in a sensitive, co-ordinated and orderly manner, while at the same time conserving the town's character and intrinsic heritage value.	CH1 CH2		B1 B2 B3 HH1 S1 W1 W2 C1 C2 W4 W5 CH1 CH2 W3	L1		

Strategic Goals						
<p>To strengthen the ability of Tullamore to facilitate the sustainable development of the town and environs area to meet economic, social and demographic growth requirements of Tullamore Town in accordance with the provisions of the NSS and MRPGs by the provision of adequate zoned land in an orderly manner.</p> <p>To strengthen the existing physical development of Tullamore and Environs area so that the future sustainable growth of the town is underpinned by excellent infrastructure, responds to current and future development requirements and occurs in the co-ordinated manner which promotes a good quality of life for those who live and work in Tullamore both at present and in the future.</p> <p>To develop and plan continually for strategic transportation links between Tullamore and Athlone and Mullingar to enable the Midlands Linked Gateway to function effectively and competitively at a National Level and rest of region including N52/N80 and western bypass.</p> <p>To maintain and further enhance the role of Tullamore as an important centre of socio-economic activity in the Midland Linked Gateway and as the main administrative centre of County Offaly.</p> <p>To facilitate the provision of sufficient and adequate employment opportunities to cater for the needs of the population of the town and its hinterland and to attract new population.</p> <p>Promote Industrial and Commercial Development including Research and Development facilities to build on existing educational strengths and existing industry to promote a coherent and integrated approach to economic growth.</p> <p>To allow for the extension and development of educational facilities in the town as necessary and promote the provision of third level education facilities and courses that are aligned with the skill set needs and research and development activities of targeted industry sectors.</p> <p>To encourage the continued commercial development of the town and to further its role as a shopping and commercial centre for the County and Midland Region.</p> <p>To ensure that sufficient and suitably located land is allocated to satisfy the requirements of a multitude of functions in the town which in turn, would be attractive and flexible to accommodate the requirements of a wide a range of operators from local level right up to International level.</p> <p>To promote the town's role within the Region as a Healthcare centre and to seek to provide further healthcare facilities in designated areas.</p> <p>To ensure that the necessary public utilities and services are available in the future to satisfy the needs of Tullamore linking in with surrounding areas.</p> <p>To facilitate the provision of improved amenities within the town and to secure the appropriate re-development, renewal and improvement of areas within the town.</p> <p>To facilitate the development and promotion of Tullamore as a tourism destination and base.</p> <p>To renew, consolidate and develop the existing fabric of the town and to encourage a high quality of design in new development.</p> <p>To provide and maintain adequate water supply, drainage and waste water services. This will be undertaken in a manner which protects and enhances the natural environment, whilst providing for economic and urban development purposes.</p> <p>To encourage the development of Tullamore in a sequential manner and in accordance with the planning framework identified in the plan. This would provide for the sequential expansion of the town from central areas into the environs areas (masterplan areas – see chapter 5) in a coherent manner which will facilitate complete integration between the town and environs.</p> <p>To ensure that the development of Tullamore will not adversely compromise the natural environment.</p>	<p>B1 B2 B3 HH1 S1 W1 W2 C1 C2 W4 W5 CH1 CH2 W3 L1</p>		<p>B1 B2 B3 HH1 S1 W1 W2 C1 C2 W4 W5 CH1 CH2 W3</p>	<p>L1</p>		

8.3 Chapter 4: Overall Strategy

	Likely to <u>Improve</u> status of SEOs	Probable <u>Conflict</u> with status of SEOs- unlikely to be mitigated	Potential <u>Conflict</u> with status of SEOs- likely to be mitigated	<u>Uncertain</u> interaction with status of SEOs	<u>Neutral</u> Interaction with status of SEOs	<u>No Likely</u> interaction with status of SEOs
Housing Aim						
To ensure that suitable accommodation is available for each household within Tullamore by: <ul style="list-style-type: none"> Facilitating the provision of appropriate private developments and Provision of social and affordable housing, where feasible and in accordance with Tullamore's position within the County Settlement Hierarchy. 	CH1 CH2		B1 B2 B3 HH1 S1 W1 W2 C1 C2 W4 W5 CH1 CH2 W3	L1		
Policies						
TTEP 04-01 It is the Councils' policy to strategically prioritise the development of Tullamore as part of the Midlands Linked Gateway. The Council will monitor the growth of the gateway in nominal terms towards the 2020 target of 30,000 persons and also relative to the growth of the remainder of the county and in particular the share of County population attributed to the Gateway. It is council policy to implement the 'sequential approach' (i.e. develop from the centre first, then outwards) in assessing the proposed housing developments to avoid isolated development in outer zoned areas.	B1 B2 B3 HH1 S1 W4 W5 C1 C2 CH1 CH2		B1 B2 B3 HH1 S1 W1 W2 W3 C1 C2 W4 W5 CH1 CH2	L1		
TTEP 04-02 It is Council policy to ensure that housing developments both individually and cumulatively are reflective in size/scale of the relevant settlement/area's position within the County's Settlement Hierarchy. In this regard, and without prejudice to other development plan policies or development management best practices, there will be positive presumption for housing developments of the following size or smaller within Tullamore as appropriate: Gateway: 150 houses. This policy is not intended to preclude developers / landowners who have large blocks of zoned and serviced land for development from developing same. In such cases, land blocks should be put forward for development by means of planning applications in a sequential manner. While it is general policy of the Councils to require that developments be linked to each other and to the existing fabric of the settlement by means of roads, footpaths, linked open spaces etc., it is also a general policy of the Council's to require that developments differ in design and layout while maintaining the overall character of the area in order to achieve interest and variety in the built form and to provide choice to the prospective new or second hand house purchaser. It is policy that directly provided Local Authority housing or housing delivered in co-operation with the Council will adhere to the above principles also. Further, it is the Council policy to require a mix of dwelling types in housing developments and in particular to encourage as part of housing developments the provision of: <ul style="list-style-type: none"> Small numbers of single storey houses to give choice to persons with enhanced accessibility needs i.e. the elderly and persons with a disability. Detached dwellings on large sites subject to adherence with general principles regarding the efficient use of building land (i.e. such dwellings may form part of a mixed density development). Individually serviced sites, particularly in Local Service Towns and villages, subject to submission with the planning application, of a detailed template(s) for the general design, scale, position, materials, boundary treatment etc. of the dwellings so as to avoid uncoordinated development of settlements. All new development shall have such a mix of house types such as not to closely overlook the curtilage of existing dwellings.	CH1 CH2		B1 B2 B3 HH1 S1 W1 W2 C1 C2 W4 W5 CH1 CH2 W3	L1		

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TTEP 04-03 It is the policy of the Councils to facilitate a population for Tullamore of 24,500 by 2022 and in the interim, a population of 19,250 by 2016, in line with the breakdown indicated in Table 4.4 of this Chapter.	B1 B2 B3 HH1 S1 W4 W5 C1 C2 CH1 CH2		B1 B2 B3 HH1 S1 W1 W2 W3 C1 C2 W4 W5 CH1 CH2	L1		
TTEP 04-04 It is Council policy to ensure that Tullamore can support the level of growth (socially and economically) to underpin its role as part of the 'Midland's Linked Gateway' and as a 'driver' of development in sustaining strong levels of economic growth and prosperity in the county and region as a whole.	CH1 CH2		B1 B2 B3 HH1 S1 W1 W2 C1 C2 W4 W5 CH1 CH2 W3	L1		
TTEP 04-05 Housing Policy – Tullamore Environs. It is the Councils' policy that, notwithstanding compliance with policies set out hereunder, quality, design, siting and other environmental considerations will be of paramount importance in the assessment of each individual application for a dwelling in the environs countryside.	B1 B2 B3 HH1 S1 W1 W2 W3 C1 C2 W4 W5 CH1 CH2 L1					
TTEP 04-06 Single Rural House Policy within Tullamore Environs It is Council policy that within the areas of the open countryside within the environs area of Tullamore which are under development pressure / urban influence, a positive presumption will be given towards a new single house for the permanent occupation of an applicant who falls within either of the 3 categories below and meets the necessary criteria. Category 1: Local Rural Persons The following 3 criteria arise in assessing applicants under this category: The applicant must come within the definition of a 'Local Rural Person' and the proposed site must be situated within their 'Local Rural Area' and the applicant must have a 'Local Rural Housing Need' a.) A 'Local Rural Person' (applicant) is a person who was born within the local rural area, or who is living or has lived in the local rural area for a minimum of 5 years at any stage prior to making the planning application. It includes returning emigrants seeking a permanent home in their local rural area. b.) The 'Local Rural Area' for the purpose of this policy is defined as the area generally within a 8km radius of where the applicant was born, living or has lived. The rural area excludes those settlements listed within Tiers 1-2 of the County Settlement Hierarchy inclusive, which are urban settlements i.e. Gateway, Large Towns. c.) An applicant who satisfies a 'Local Rural Housing Need' is defined as a person who does not or has not ever owned a house in the surrounding rural area and has the need for a permanent dwelling for their own use. Category 2: Persons Working Fulltime or Part-time in Rural Areas Such persons shall be defined as persons who by the nature of their work, have a functional need to reside permanently in the rural area generally immediately adjacent to their place of work. Such circumstances will normally encompass persons involved in full-time farming, horticulture or forestry as well as similar part-time occupations where it can be demonstrated that it is the predominant occupation. Other cases will be dealt with on their own individual merits having regard to the intended spirit of the policy. In each case the applicant must not already own or have owned a house in the surrounding rural area.			B1 B2 B3 HH1 S1 W1 W2 W3 C1 C2 W4 W5 CH1 CH2	L1		

Category 3: Exceptional Health Circumstances Having regard to the Department of the Environment, Heritage and Local Government's 'Sustainable Rural Housing Guidelines' (2005), special consideration shall be given in limited cases of exceptional health circumstances - supported by relevant documentation from a registered medical practitioner and a disability organisation proving that a person requires to live in a particular environment or close to family support, or requires a close family member to live in close proximity to that person.						
TTEP 04-07 It is the Councils' policy that specific areas within the plan boundary shall be subject to more detailed guidance. This will take the form of Masterplan areas (Chapter 5). These areas will be governed by the policies contained therein as well as those in this chapter.	B1 B2 B3 HH1 S1 W1 W2 W3 C1 C2 W4 W5 CH1 CH2 L1		B1 B2 B3 HH1 S1 W1 W2 W3 C1 C2 W4 W5 CH1 CH2	L1		
TTEP 04-08 Replacement of Habitable Houses in Tullamore Environs In the case of the proposed demolition of a substandard dwelling and its replacement with a new single dwelling, it is the Councils' policy to favourably consider proposals subject to normal environmental, siting, design and layout considerations. In such circumstances, the provisions of policy TTEP 04-05 (i.e. 'Local Need' requirement) will not apply. Notwithstanding the above, it is the Council's policy to protect Tullamore town and environs vernacular building stock from demolition where restoration is a feasible option.	CH2 S1			L1	B1 B2 B3 HH1 W1 W2 W3 C1 C2 W4 W5 CH1 CH2	
TTEP 04-09 Reuse of existing structures as dwellings in Tullamore Environs It is the Councils' policy to favourably consider all applications (i.e. 'Local Need' requirement will not apply) for the refurbishment and/or reuse of older building stock subject to the following criteria. • The external walls and roof are substantially intact. • The design of the proposal does not erode the siting and design qualities of the building which makes it attractive in the first instance. • The size of any extension takes account of the siting and size of the existing dwelling. • The design, scale and materials used in the refurbishment and/or extension are in keeping and sympathetic with the existing structure. • Mature landscape features are retained and enhanced, as appropriate. • That normal planning considerations i.e. road safety, amenities, public health, design etc. shall take precedence over the 'principle' of encouraging such development.	S1 HH1 CH2 L1				B1 B2 B3 W1 W2 W3 W4 W5 C1 C2 CH1	
TTEP 04-10 Refurbishment of Derelict Dwellings in Tullamore Environs Countryside It is the Councils' policy to encourage the sensitive refurbishment of existing dwelling houses which have fallen derelict subject to the following: • That normal planning considerations i.e. road safety, amenities, public health, design etc. shall take precedence to the 'principle' of encouraging such development, and in particular that for such developments alongside or directly accessed from National Roads, that the provisions of policy TTEP 08-13 shall apply (refer to Chapter 8, Transport, movement and accessibility).	S1 HH1 CH2 L1					HH1 S1 CH2 L1
Overall Housing Policy TTEP 04-11 Reservation of Lands for the Provision of Social and Affordable Housing It is the Councils' policy, as required under Section 95 of the Planning and Development Acts 2000 to 2009 that 20% of all land zoned for residential use and/or for a mixture of residential and other uses, shall be reserved for the provision of housing for the purposes of either or both: 1) Housing for persons referred to in Section 9(2) of the Housing Act, 1988; 2) Affordable housing (as defined in Section 93 of the Planning and Development Acts 2000 to 2009)						B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 C1 C2 CH1 CH2 L1
TTEP 04-12 It is the Councils' policy to ensure that a sufficient amount and variety of serviced land, designed for residential use, is available for house building in Tullamore.	W4 W5 W1 W2 B1 B2 HH1		B3 S1 W3 C1 C2 CH1 CH2	L1		

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TTEP 04-13 It is the Councils' policy to ensure housing of a high standard is provided in Tullamore to meet projected needs. It is the policy of the Councils that every family unit should have housing of a standard suitable to its needs.						B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 C1 C2 CH1 CH2 L1
TTEP 04-14 It is the Councils' policy to promote social inclusion by ensuring that social and affordable housing is suitably distributed throughout all residential developments and locations.						B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 C1 C2 CH1 CH2 L1
TTEP 04-15 It is the Councils' policy to allow for revisions should the Housing Strategy be reviewed or Planning Legislation (notably 'Part V') be amended during the lifetime of plan.				B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 C1 C2 CH1 CH2 L1		
TTEP 04-16 It is the Councils' policy to ensure the delivery of the policies and objectives of the Housing Strategy by ensuring sufficient lands within Tullamore are zoned in accordance with its position within the County Settlement Hierarchy.	CH1 CH2		B1 B2 B3 HH1 S1 W1 W2 C1 C2 W4 W5 CH1 CH2 W3	L1		
TTEP 04-17 It is the Councils' policy that where considering development and/or acquisition of social and affordable housing the Councils will have full regard to (a) The policies contained in the Tullamore Town and Environs Development Plan and Offaly County Development Plan and any other relevant action plans (b) Tullamore's position within the County Settlement Strategy (c) The policies contained in the Councils' Social Housing Multi-Annual Programme (d) The need for social integration. (e) The need to ensure the overall coherence of the development.					B1 B2 B3 HH1 S1 W1 W2 W3 C1 C2 W4 W5 CH1 CH2 L1	
TTEP 04-18 Social Housing It is the Councils' policy to provide social houses through a combination of mechanisms including direct build, 'Part V', turnkey and the acquisition of second-hand housing in accordance within Tullamore's position within the County Settlement Hierarchy to meet identified needs, through the most appropriate measures, subject to resources and funding. Social housing units will be allocated on the basis of the Councils' adopted scheme of letting priorities.			B1 B2 B3 HH1 S1 W1 W2 W3 C1 C2 W4 W5 CH1 CH2	L1		
TTEP 04-19 Affordable Housing It is the Councils' policy to appropriately manage the provision of affordable housing provided by the Councils within Tullamore.						B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 C1 C2 CH1 CH2 L1

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TTEP 04-20 House Types and Sizes It is the Councils' policy to ensure that an appropriate mix of house types and sizes are provided in each residential development. House designs and layout should reflect the requirements of different categories of households within Tullamore – particularly those needs and requirements of elderly persons and persons with disabilities coupled with continuing trends in changing demographics (i.e. decreasing household size). This will be considered in relation to Tullamore's position within the settlement tier of the County Settlement Hierarchy.						B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 C1 C2 CH1 CH2 L1
TTEP 04-21 It is the Councils' policy to promote a mix of house types and social integration within residential developments.						B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 C1 C2 CH1 CH2 L1
TTEP 04-22 It is the Councils' policy to require that a high standard of design and layout of residential development is achieved, including the provision of adequate suitably designed open space.	CH2 L1 B3 W3					B1 B2 HH1 S1 W1 W2 W4 W5 C1 C2 CH1
TTEP 04-23 It is Councils' policy to encourage the use of currently unoccupied or under occupied dwellings over the development of new builds.	S1 C1 C2					B1 B2 B3 HH1 W1 W2 W3 W4 W5 CH1 CH2 L1
TTEP 04-24 Serviced Sites - It is the Councils' policy to encourage the provision of private serviced building sites, for example as part of housing developments within Tullamore in order to strengthen the fabric of the town and environs, and to offer an element of choice. It is also the Councils' policy to ensure that the size of such sites is adequate for appropriate levels of privacy and choice of house type and style.	W4 W5 W1 W2 B1 B2 B3 HH1			S1 W3 C1 C2 CH1 CH2 L1		
TTEP 04-25 It is the Councils' policy to encourage and facilitate private house building in Tullamore and suitably designed residential infill development where appropriate.	S1 C1 C2		B1 B2 B3 HH1 W1 W2 W3 C1 C2 W4 W5 CH1 CH2	L1		
TTEP 04-26 Homeless People It is the Councils' policy to actively promote integrated solutions to address the issue of homelessness within Tullamore. The Councils will continue to work in partnership with the statutory and voluntary agencies on the Offaly Homeless Forum to address the accommodation needs of homeless persons in a targeted and focussed manner using an inter-agency approach.						B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 C1 C2 CH1 CH2 L1
TTEP 04-27 Travellers It is the Councils' policy to respect the distinctive culture of the Travelling Community and assist in the process of integration with the settled community.						B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 C1 C2 CH1 CH2 L1

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TTEP 04-28 It is the Councils' policy to provide a good and well-managed living environment for the Travelling Community including recommended standards of accommodation, sanitary facilities, and pre-school education facilities, where feasible.			B1 B2 B3 HH1 S1 W1 W2 W3 C1 C2 W4 W5 CH1 CH2	L1		
TTEP 04-29 It is the Councils' policy to provide accommodation to meet the needs of the Travelling Community in the Tullamore Area and to prohibit illegal parking.			B1 B2 B3 HH1 S1 W1 W2 W3 C1 C2 W4 W5 CH1 CH2	L1		
TTEP 04-30 Elderly It is the Councils' policy to take account of the demand and need for elderly persons' dwellings in its annual housing programme. The possibility of providing Old Persons' Dwellings close to existing services in the town centre area will be examined.	C1 C2		B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 CH1 CH2	L1		
Objectives						
TTEO 04-01 To secure the implementation of the Housing Strategy 2008-2015 including the proper implementation of its policies, objectives and goals, in particular, through the reservation of 20% of all and zoned solely for residential use, or for a mixture of residential or other uses, to be made available for the provision of social and affordable housing referred to in Section 94(4) (a) of the Planning and Development Acts 2000 to 2009. Further, it is a Council objective, that the allocation between social and affordable housing will be determined on a case-by-case basis depending on the identified social and affordable needs of the area within which the development is taking place and the specific features of the development.	CH1 CH2		B1 B2 B3 HH1 S1 W1 W2 C1 C2 W4 W5 CH1 CH2 W3	L1		
TTEO 04-02 To co-operate with Voluntary Housing Associations in the provision of social housing.						B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 C1 C2 CH1 CH2 L1
TTEO 04-03 To facilitate orderly development to meet housing requirements of the town and environs.	CH1 CH2		B1 B2 B3 HH1 S1 W1 W2 C1 C2 W4 W5 CH1 CH2 W3	L1		
TTEO 04-04 Ratio of Social to Affordable Housing To seek the development of social and affordable units on a case-by-case basis, in accordance with the existing local needs and special needs requirements of the population of an area.						B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 C1 C2 CH1 CH2 L1

TTEO 04-05 Proposed Accommodation for the Travelling Community To provide adequate accommodation for Travellers in accordance with the Council's Traveller Accommodation Programme for County Offaly.			B1 B2 B3 HH1 S1 W1 W2 W3 C1 C2 W4 W5 CH1 CH2	L1		
TTEO 04-06 To meet the accommodation requirements of the travelling community of the Tullamore and Environs area.			B1 B2 B3 HH1 S1 W1 W2 W3 C1 C2 W4 W5 CH1 CH2	L1		
TTEO 04-07 Purpose built dwellings To provide purpose built dwellings for those with special needs, including provisions for the needs of the elderly, persons with physical disabilities and persons with learning disabilities where feasible and in conjunction with other voluntary bodies and the private sector.			B1 B2 B3 HH1 S1 W1 W2 W3 C1 C2 W4 W5 CH1 CH2	L1		
TTEO 04-09 Identification of accommodation and sites To carry out the following detailed objectives: <ul style="list-style-type: none"> • Provide suitable accommodation for Travellers at appropriate locations in the plan area. • Identify further sites for infill housing for public and private sector development. 	S1 C1 C2		B1 B2 B3 HH1 S1 W1 W2 W3 C1 C2 W4 W5 CH1 CH2	L1		

8.4 Chapter 5: Masterplans⁴²

	Likely to <u>Improve</u> status of SEOs	Probable <u>Conflict</u> with status of SEOs- unlikely to be mitigated	Potential <u>Conflict</u> with status of SEOs- likely to be mitigated	<u>Uncertain</u> interaction with status of SEOs	<u>Neutral</u> Interaction with status of SEOs	<u>No Likely</u> interaction with status of SEOs
Strategic Objectives						
SO1. To strengthen the role of Tullamore as an intrinsic part of the Midlands Linked Gateway.	CH1 CH2		B1 B2 B3 HH1 S1 W1 W2 C1 C2 W4 W5 CH1 CH2 W3	L1		
SO2. To facilitate a population for Tullamore of 24,500 by 2002.	CH1 CH2		B1 B2 B3 HH1 S1 W1 W2 W3 C1 C2 W4 W5 CH1 CH2	L1		
SO3. To facilitate the sustainable phased expansion of the town into the masterplan areas in a coherent manner which facilitates complete integration between the town and its environs.	B1 B2 B3 HH1 S1 W1 W2 W3 C1 C2 W4 W5 CH1 CH2			L1		
SO4. To help meet the growing residential, services, employment and community requirements of the town in a sequential manner in line with proper planning and sustainable development.	B1 B2 B3 HH1 S1 W1 W2 W3 C1 C2 W4 W5 CH1 CH2			L1		
SO5. To help facilitate the future economic growth of Tullamore.	CH1 CH2		B1 B2 B3 HH1 S1 W1 W2 W3 C1 C2 W4 W5 CH1 CH2	L1		

⁴² The lower level, more detailed provisions of this chapter have been evaluated in the Environmental Report of Variation No. 4 to the Tullamore Town and Environs Development Plan 2004-2010 Strategic Environmental Assessment (October 2008).

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SO6. To develop each masterplan area as a partially self sustaining neighbourhood with a mix of land uses which facilitates the provision of local services that will reduce the requirement for movement and which helps foster a sense of community among local residents.	C1 C2					B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 CH1 CH2 L1
SO7. To ensure that the high amenity value of the natural and built environment within the masterplan areas is protected and enhanced, where appropriate.	B1 B2 B3 HH1 W1 W2 W3 W4 CH1 CH2 L1		S1			W5
SO8. To conserve and enhance the built heritage of the masterplan areas.	CH1 CH2		S1			
SO9. To seek the efficient use of existing infrastructure and services. Where necessary, the Council will facilitate the upgrading of existing infrastructure and services, or when required, the provision of new infrastructure and services, to facilitate development within the masterplan areas.	B1 B2 B3 HH1 W1 W2 W4 W5					S1 W3 C1 C2 CH1 CH2 L1
SO10. To promote and require the use of best practice urban design principles in all developments within the masterplan areas.	CH2		S1			B1 B2 B3 HH1 W1 W2 W3 W4 W5 C1 C2 CH1 L1
SO11. To promote and seek high quality standards of design in all new developments.	CH2		S1			B1 B2 B3 HH1 W1 W2 W3 W4 W5 C1 C2 CH1 L1
SO12. To respect the character and residential amenity of surrounding areas.	CH2		S1			B1 B2 B3 HH1 W1 W2 W3 W4 W5 C1 C2 CH1 L1

8.5 Chapter 6: Employment, Economy and Enterprise

	Likely to <u>Improve</u> status of SEOs	Probable <u>Conflict</u> with status of SEOs- unlikely to be mitigated	Potential <u>Conflict</u> with status of SEOs- likely to be mitigated	<u>Uncertain</u> interaction with status of SEOs	<u>Neutral</u> Interaction with status of SEOs	<u>No Likely</u> interaction with status of SEOs
Aim						
To build on Tullamore's current economic strengths, recognise its challenges and strive to improve same, therefore ensuring that its people will have access to a range of quality employment opportunities in the town's catchment area, "bringing people and jobs closer together"	CH1 CH2 C1 C2		B1 B2 B3 HH1 S1 W1 W2 C1 C2 W4 W5 CH1 CH2 W3	L1		
Employment and Workforce Policies						
TTEP 06-01 It is the Councils' policy to seek to promote and diversify the local economy as prescribed under the National Spatial Strategy, Midlands Regional Planning Guidelines and in accordance with the County's agreed settlement hierarchy which provides for balanced development.	CH1 CH2		B1 B2 B3 HH1 S1 W1 W2 W3 C1 C2 W4 W5 CH1 CH2	L1		
TTEP 06-02 It is the Council's policy to strengthen and channel development into Tullamore, the primary driver for economic development within the county, a role identified as part of the Midlands Linked Gateway as set out in the National Spatial Strategy and the Midland Regional Planning Guidelines.	CH1 CH2		B1 B2 B3 HH1 S1 W1 W2 W3 C1 C2 W4 W5 CH1 CH2	L1		
TTEP 06-03 There is a positive presumption to employment creation and it is the Councils policy to distribute and channel employment sources into suitably zoned and serviced lands already identified in Tullamore for industrial, manufacturing, commercial, technological and service needs of the town and the Midlands Region over the plan period within the bounds of proper planning and sustainable development.	B1 B2 B3 HH1 S1 W1 W2 W3 C1 C2 W4 W5 CH1 CH2 L1					
TTEP 06-04 It is the Councils' policy to co-operate with potential employers and local, regional and national enterprise authorities, most notably IDA, Enterprise Ireland, Offaly County Enterprise Board and Fás in the attraction of investment into Tullamore, including both overseas investment and local investment and the provision of employment/enterprise.				B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 C1 C2 CH1 CH2 L1		

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TTEP 06-05 It is the Councils' policy to take a pro-active approach in seeking to protect existing employment and to develop new opportunities for employment, education, training and enterprise.	C1 C2 CH1 CH2		B1 B2 B3 HH1 S1 W1 W2 W3 C1 C2 W4 W5 CH1 CH2	L1		
TTEP 06-06 It is the Councils' policy to support employment creation including where it can mitigate against long distance commuting.	C1 C2		B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 CH1 CH2	L1		
TTEP 06-07 It is the Councils' policy to encourage and facilitate existing and/or future decentralisation to Tullamore.				B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 C1 C2 CH1 CH2 L1		
TTEP 06-08 It is the Councils' policy to actively encourage, facilitate and provide for the location and development of knowledge-intensive and technology based specialisation companies in Tullamore, as appropriate and in accordance with development/environmental standards and allow for provision of Research and Development/Innovation facilities to support enterprise, employment and learning.	B1 B2 B3 HH1 S1 W1 W2 W3 C1 C2 W4 W5 CH1 CH2 L1					
TTEP 06-09 It is the Councils' policy to facilitate and work pro-actively with other interest groups (both public and private sector) in the location of industry, business and enterprise in particular by: Zoning of lands within an adequate range of locations for both industry and business/employment uses which can facilitate the provision of large-scale and small-scale development, as appropriate. This includes the identification and possible reservation of lands at suitable locations which will accommodate, where appropriate - business/commercial activity, industry, enterprise, retail etc. having regard to proper planning and sustainable development. The Councils will protect zoned lands from inappropriate development that would undermine future economic activity or the unsustainable development of such areas.	B1 B2 B3 HH1 S1 W1 W2 W3 C1 C2 W4 W5 CH1 CH2 L1					
TTEP 06-10 It is the Councils' policy to ensure that sufficient industrial land is available when required, and to encourage and facilitate the expansion of existing industry where it conforms with the proper planning and development of the areas involved.	B1 B2 B3 HH1 S1 W1 W2 W3 C1 C2 W4 W5 CH1 CH2 L1					
TTEP 06-11 It is the Councils' policy to actively encourage the redevelopment of brownfield sites and the reuse of disused buildings for enterprise and employment creation, in particular disused sites, when such a development is in compliance with the land-use zoning matrix.	S1 C1 C2		CH1 CH2		B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 C1 C2 CH1 CH2 L1	

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TTEP 06-12 It is the Councils' policy to co-operate with and facilitate Government agencies, and other bodies where feasible, in encouraging home-based employment.	C1 C2					B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 CH1 CH2 L1
TTEP 06-13 It is the Councils' policy to encourage the provision of incubator units at a scale appropriate to Tullamore's location in the County Settlement Hierarchy.	CH1 CH2		B1 B2 B3 HH1 S1 W1 W2 W3 C1 C2 W4 W5 CH1 CH2	L1		
TTEP 06-14 It is the Councils' policy to encourage and establish links between Tullamore and higher educational institutes e.g. Athlone Institute of Technology and other higher educational institutes as appropriate, which will improve the skills base/education of the local population and workforce.						B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 C1 C2 CH1 CH2 L1
Rural Development on Urban Fringe Policies						
TTEP 06-15 It is the Councils' policy to support the development of agriculture where it is compatible with the sustainable development of Tullamore and commensurate with sustaining the farming community.	B1 B2 B3 HH1 W1 W2 W3 W4 W5 CH1 CH2 L1					C1 C2 S1
TTEP 06-16 It is the Councils' policy to consider favourably proposals for on-farm based diversification, which is complementary to the agricultural operation on the farm and is operated as part of the farm holding.			B1 B2 B3 HH1 W1 W2 W3 W4 W5 CH1 CH2	L1		
TTEP 06-17 It is the Councils' policy to facilitate and encourage the reuse of redundant farm buildings of vernacular importance for appropriate agri-tourism enterprises, subject to the proper planning and sustainable development of the area.	B1 B2 B3 HH1 S1 W1 W2 W3 C1 C2 W4 W5 CH1 CH2 L1					
TTEP 06-18 It is the Councils' policy to co-operate with enterprise development agencies and local development bodies in the provision of enterprise and employment.				B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 C1 C2 CH1 CH2 L1		

Employment and Workforce Objectives						
TTEO 06-01 It is an objective of the Councils to facilitate the development of the Midlands Linked Gateway, in accordance with national / regional policy. This will include measures to seek to reserve lands within Tullamore (part of the Midlands linked Gateway) which will make provisions for potential national and regionally significant activities and to attract specialist large-scale enterprise development within the county. The Planning Authority will therefore enhance, promote and protect Tullamore in the interests of providing for and facilitating the potential development of the gateway in accordance with national and regional policy.	CH1 CH2		B1 B2 B3 HH1 S1 W1 W2 W3 C1 C2 W4 W5 CH1 CH2	L1		
TTEO 06-02 It is an objective of the Council to co-operate with and seek to facilitate local community based development groups in developing employment clusters including incubator/start up units as appropriate.	CH1 CH2		B1 B2 B3 HH1 S1 W1 W2 W3 C1 C2 W4 W5 CH1 CH2	L1		
TTEO 06-03 It is an objective of the Council to identify a range of optimum locations which can present opportunities for the location of specific / specialised enterprise and employment within the plan area.				B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 C1 C2 CH1 CH2 L1		
TTEO 06-04 It is an objective of the Council to encourage, in co-operation with the IDA, Enterprise Ireland, the Offaly County Enterprise Board and other local development bodies, the development of enterprise and employment facilities within the plan area.	CH1 CH2		B1 B2 B3 HH1 S1 W1 W2 W3 C1 C2 W4 W5 CH1 CH2	L1		
TTEO 06-05 To support agricultural development and encourage the continuation of agriculture as a contributory means of maintaining population in the hinterland of Tullamore and sustaining the rural economy.	CH1 CH2		B1 B2 B3 HH1 W1 W2 W3 W4 W5 CH1 CH2	L1		
TTEO 06-06 To provide a high quality business park on Council owned lands in Clonminch in partnership with the IDA.			B3 HH1 S1 W1 W2 W3 C1 C2 W4 W5 CH1	L1		B1 B2

8.6 Chapter 7: Town Centre, Renewal and Retail

	Likely to <u>Improve</u> status of SEOs	Probable <u>Conflict</u> with status of SEOs- unlikely to be mitigated	Potential <u>Conflict</u> with status of SEOs- likely to be mitigated	<u>Uncertain</u> interaction with status of SEOs	<u>Neutral</u> Interaction with status of SEOs	<u>No Likely</u> interaction with status of SEOs
Aim						
To sensitively and sustainably enhance the historic town centre through the provision of high quality public realm. To ensure that the retail hierarchy is commensurate with the settlement strategy in order to facilitate a competitive and healthy retail environment and to support the future vitality and viability of Tullamore town centre. These aims will improve the attractiveness and functionality of Tullamore as a place in which to live, work and visit.	CH1 CH2		B1 B2 B3 HH1 S1 W1 W2 C1 C2 W4 W5 CH1 CH2 W3	L1		
Town Centre Policy						
TTEP 07-01 It is the Council's policy to encourage and promote development with Tullamore Town Centre that contributes positively to achieving the image of a successful Midland Gateway by exceptional design quality, enhancement of the built and natural environment and the promotion of the public realm.	B1 B2 B3 HH1 W1 W2 W3 C1 C2 W4 W5 CH1 CH2 L1					
TTEP 07-02 It is the council's policy to seek to protect and enhance the character and environment of the traditional Town Centre streetscapes and will encourage the redevelopment of derelict, underutilised sites such as those identified in Map 7.2 within the Town Centre.	CH1 CH2 S1 C1 C2					B1 B2 B3 HH1 W1 W2 W3 W4 W5 L1
TTEP 07-03 It is the Council's Policy that any new developments within the Town Centre will be required to respect the heritage and architectural character and in particular should: <ul style="list-style-type: none"> - Respect the character of the streetscape in terms of design detail, including proposed materials - Conform with scale, massing, layout, height and urban grain of the streetscape insofar as possible to ensure continuity of street frontage and definition of public and private space. - Observe historic building lines, avoiding unnecessary set backs or protrusions. - Respect and not restrict important views/vistas or landmarks within the townscape and seek to provide new views/vistas in the development of individual sites/areas. - Enhance pedestrian movement within the Town Centre. 	CH1 CH2 C1 C2		S1			B1 B2 B3 HH1 W1 W2 W3 W4 W5 L1
TTEP 07-04 It is the Council's policy to encourage and facilitate improvements to the physical fabric and environment of the Town Centre buildings (including facades and signage).			CH2			B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 C1 C2 CH1 L1

Retail Policy						
TTEP 07-05 It is Councils policy to promote Tullamore, part of the Midlands Linked Gateway, as the main retail centre in the County and to ensure that the retail quality and range is of a standard that contributes to the retail economy within the County, the Midland Gateway and Region as a whole.			B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 CH1 CH2	L1		
TTEP 07-06 It is Councils policy to implement the Retail Hierarchy as set out in the Offaly Retail Strategy. The Councils will seek to locate retail development in the retail core areas of Tullamore, subject to normal planning and land-use considerations.			B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 CH1 CH2	L1		
TTEP 07-07 It is Council policy to resist the loss of retail units to non-retail use at pedestrian level, particularly in the primary shopping frontages of the town centre.	C1 C2					B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 CH1 CH2 L1
TTEP 07-08 It is Council policy to encourage and facilitate the re-use and regeneration of derelict land and buildings for retail uses with due cognisance to the sequential approach to retail development.	C1 C2 S1		CH1 CH2			B1 B2 B3 HH1 W1 W2 W3 W4 W5 L1
TTEP 07-09 It is Council policy to encourage retail development, including new forms of shopping which relates to the regeneration of the existing town centres. Proposals, which would undermine the vitality and viability of the Town Centre, as a whole will not be permitted.	C1 C2 S1		CH1 CH2			B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5L1
Renewal Policy						
TTEP 07-10 It is the Councils policy to encourage and facilitate the physical renewal and revitalisation of areas and the enhancement of amenities and promotion of sustainable development in Tullamore. It is the Councils policy to seek the redevelopment and/or renewal of derelict sites throughout the town, which are listed in the Town Council's Derelict Sites Register.	C1 C2 S1		CH1 CH2			B1 B2 B3 HH1 W1 W2 W3 W4 W5 L1
TTEP 07-11 It is the Councils policy to promote and encourage the re-utilisation of suitable redundant or obsolete structures, ensuring that the improvement and screening of neglected sites and the renewal, repair and/or maintenance of structures is in line with the Councils powers under the Derelict Sites Act 1990.	C1 C2 S1		CH2			B1 B2 B3 HH1 W1 W2 W3 W4 W5 CH1 L1
TTEP 07-12 It is the Councils' policy to encourage and facilitate backland development, where this development strengthens the commercial or residential functions of the town centre or areas close to the centre, provided that such development is done in a coordinated fashion and does not adversely affect the intrinsic character of the town centre.	C1 C2 S1 CH1 CH2					B1 B2 B3 HH1 W1 W2 W3 W4 W5 L1
TTEP 07-13 It is the Councils' policy to encourage and assist active participation by government bodies, heritage groups, community associations, and local people, where appropriate, in the conservation and restoration of landmark buildings and structures (both of local and or regional/national importance). This may include the aiding and funding of conservation and restoration works.	CH1 CH2					B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 C1 C2 L1

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TTEP 07-14 It is the Councils' policy to seek to encourage the redevelopment of derelict or vacant buildings as an alternative to new build on new undeveloped sites.	S1 C1 C2		CH1 CH2			B1 B2 B3 HH1 W1 W2 W3 W4 W5 L1
Public Realm Policy						
TTEP 07-15 It is the Councils policy to progressively implement the policies and objectives of the Tullamore Public Realm Strategy.				B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 C1 C2 CH1 CH2 L1		
TTEP 07-16 It is Council Policy to encourage and facilitate improvements to the physical fabric and environment of the town centre including streetscape, street furniture, landscaping (hard and soft), signage and wirescapes.			CH2			B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 C1 C2 CH1 L1
Opportunity Sites						
TTEP 07-17 It is Council Policy to require that any proposal brought forward for the sites identified on Map 7.2 will include a comprehensive urban design plan showing the rational behind the proposal and how it will interact within its context and the wider Town Centre area.				B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 C1 C2 CH1 CH2 L1		
TTEP 07-18 It is Council policy to require landowners to co-operate and co-ordinate an holistic approach to the development of lands (in differing ownerships) with the aim of site assembly and the renewal and regeneration of larger sites within the Town Centre.	S1 C1 C2		CH1 CH2			B1 B2 B3 HH1 W1 W2 W3 W4 W5 L1
Signage and shop fronts Policy						
TTEP 07-19 It is Council policy to encourage the repairing and retaining of historic shop fronts or historic features in a shop front.	CH2					B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 C1 C2 CH1 L1
TTEP 07-20 It is Council policy to encourage externally lit or illuminated signs on shop fronts and to resist internally illuminated or neon type signs			CH2			B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 C1 C2 CH1 L1

Landmark/Gateway/Tall buildings Policy						
TTEP 07-21 It is Council policy to encourage landmark/gateway/tall buildings at appropriate locations within the Town Centre, subject to normal planning considerations and where the structures display exceptional design quality.			CH2	L1		B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 C1 C2 CH1
Objectives						
TTEO 07-01 It is an objective of the Councils to consolidate the existing retail and commercial function of the town centre area.	S1 C1 C2		CH1 CH2			B1 B2 B3 HH1 W1 W2 W3 W4 W5 L1
TTEO 07-02 It is an objective of the Councils to encourage the sequential approach to retail development within Tullamore and to avoid impact on the vitality vibrancy of the town centre.	C1 C2					B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 CH1 CH2 L1
TTEO 07-03 It is an objective of the Councils to facilitate where appropriate, the development and renewal of sites and areas of Tullamore which are in need of regeneration and in particular to guide the holistic development of larger assembled sites. The Councils will facilitate and promote sensitive and in context re-development of underused or derelict town centre areas.	S1 C1 C2 CH1 CH2					B1 B2 B3 HH1 W1 W2 W3 W4 W5 L1
TTEO 07-04 It is an objective of the Councils to exercise the Councils' powers under the Derelict Sites Act 1990, to identify areas of dereliction, which are suitable for redevelopment, in accordance with Tullamore's Derelict Sites Register.	S1 C1 C2		CH1 CH2			B1 B2 B3 HH1 W1 W2 W3 W4 W5 L1
TTEO 07-05 It is an objective of the Councils to remove unauthorised advertising/signage where possible and to encourage new signage which is appropriate to the streetscape and it not internally illuminated.	CH2					B1 B2 B3 HH1 W1 W2 W3 W4 W5 C1 C2 CH1 CH2 L1
TTEO 07- 06 It is the Councils objective to carry out a Public Realm Study for Tullamore				B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 C1 C2 CH1 CH2 L1		
TTEO 07-07 It is an objective of the Councils to facilitate and encourage the development of an appropriately sited and designed pedestrian footbridge over the Tullamore River between the site of the Bridge Centre car park and Main Street.	C1 C2		B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 CH1 CH2	L1		

<p>TTEO 07-08 It is an objective of the Councils to work with and facilitate Waterways Ireland in identifying an alternative site for their existing operations in the Harbour area.</p> <p>As the location of the alternative site is unknown, the interactions between this Proposed Amendment and the following are uncertain: biodiversity and flora and fauna, human health, water resources, cultural heritage, flood risk, water services infrastructure, travel related greenhouse emissions to air, greenfield development and reduce car dependency. Providing the other measures contained in the Plan and the measures arising out of lower tier assessments are complied with, conflicts with the environment would be likely to be mitigated.</p>		<p>B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 CH1 CH2</p>	L1		C1 C2
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8.7 Chapter 8: Transport, Accessibility and Movement

	Likely to <u>Improve</u> status of SEOs	Probable <u>Conflict</u> with status of SEOs- unlikely to be mitigated	Potential <u>Conflict</u> with status of SEOs- likely to be mitigated	<u>Uncertain</u> interaction with status of SEOs	<u>Neutral</u> Interaction with status of SEOs	<u>No Likely</u> interaction with status of SEOs
Aim						
To promote and facilitate the use of sustainable and smarter travel patterns, which include alternative modes of transport that are properly integrated together and support the development of a safer, more efficient transport system for Tullamore. Such a transport system will include integrated improvements to the road network, public transport network, cycleways and pedestrian ways.	C1 C2 CH1 CH2		B1 B2 B3 HH1 S1 W1 W2 C1 C2 CH1 CH2 W3	L1		W4 W5
Strategic/ Transport and Land-Use Policy						
<p>TTEP 08-01 It is the Councils' policy to locate land-uses, such as residential, schools, work and leisure areas closer together, without negatively impacting on the residential/public amenity of Tullamore. The purpose of this policy is to:</p> <ul style="list-style-type: none"> • Reduce the need to travel • Create more sustainable short distance travelling i.e walking and cycling. <p>This policy will be achieved by adopting the sequential approach to development in a proper and plan-led manner. That is, a positive presumption in favour of developing from the centre most point outwards i.e. town centre and neighbourhood centres and a presumption against the development of isolated or outlying sites (refer to Chapter 5: Masterplans).</p>	C1 C2					B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 CH1 CH2 L1
TTEP 08-02 It is the Councils' policy to complete the Tullamore Eastern By-Pass.				B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 C1 C2 CH1 CH2 L1		
TTEP 08-03 The Councils' intend to secure the provision of a relief road/bypass to the west of the town linking the N52 to the north via the N80 and back to the N52 to the south west of the town. A corridor has been identified for this purpose, and it is the Councils' policy to protect this from development (refer to Map 8.).				B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 C1 C2 CH1 CH2 L1		
TTEP 08-04 It is the Councils' policy to ensure the town is well-connected to both the National Road Network and local centres of population. Therefore any necessary improvements to the N52, N80 and regional roads shall be brought forward when required and as resources become available.				B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 C1 C2 CH1 CH2 L1		

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TTEP 08-05 It is the Councils' policy to facilitate the development of a public transport node in Tullamore centred on the railway station.	C1 C2					B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 CH1 CH2 L1
TTEP 08-06 It is the Council's policy to facilitate the development of designated parking facilities for larger vehicles (i.e. heavy goods vehicles) within the Town and Environs area.			CH1 CH2 L1			
TTEP 08-07 It is the Councils' policy to facilitate development of the masterplan areas by the creation of a network of local distributor routes, which connect these new areas to the existing town in a coherent plan led manner bringing permeability to the resultant urban fabric. These routes will be informed by the relevant masterplans and the Tullamore Transportation Study on its adoption.				B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 C1 C2 CH1 CH2 L1		
TTEP 08-08 It is the Councils' policy to facilitate the provision of the strategic links required to ensure the satisfactory implementation of the masterplans. These are shown marked A to R on map 8.1 and outlined in sub-section 8.2.3.2.				B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 C1 C2 CH1 CH2 L1		
TTEP 08-09 In conjunction with the above policies (TTEP 08-06 and TTEP 08-07) it is the Councils' policy to complete important elements in the town's internal network. These are shown as X and Y shown on map 8.1 and outlined in sub-section 8.2.3.2.				B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 C1 C2 CH1 CH2 L1		
TTEP 08-10 It is the Councils' policy to complete a Transportation Study for the plan area. This study will address the following issues: <ul style="list-style-type: none"> Examination of the existing traffic and transportation conditions in the Study Area. Review of proposals outlined in the Town and County Development Plans and the National Development Plan. Development of a traffic model that incorporates a user friendly forecasting program that can be used by Offaly County Council for the analysis of all development and transportation proposals. The model shall identify road and junction strategies and traffic management proposals in the event that all zones within the development plan shall be fully developed and alternative interim management strategies during the town's progression towards full development. Analysis of adopted and new road strategies and recommendations should be reflected in the proposed traffic model. Consideration should be given to sustainable transport including public transport strategies, pedestrianisation and cycle path. Identification of the key measures required to provide for best traffic management practice for the Study Area. 	C1 C2				B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 C1 C2 CH1 CH2 L1	

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TTEP 08-11 It is the Councils' policy that the forthcoming Tullamore Public Realm Strategy will inform any improvements to the built environment as a result of the implementation of proposed distributor roads and/or traffic calming measures in the town centre. Where possible and feasible, new developments will be required to "overlook" the proposed distributor roads. The aim is to create a sense of place and ownership of newly designed and existing, public realm/spaces in Tullamore.	HH1					B1 B2 B3 S1 W1 W2 W3 W4 W5 C1 C2 CH1 CH2 L1	
TTEP 08-12 It is Councils' policy to have regard to government guidelines on transport including "Smarter Travel; A Sustainable Transport Future 2009-2020" and "Smarter Travel; Ireland's First National Cycle Policy Framework".	C1 C2						B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 CH1 CH2 L1
TTEP 08-13 It is Councils' policy to promote Tullamore as a "green cycle/transport town". Having regard to short distance trips within Tullamore town and environs, it is the Councils' policy to encourage and facilitate the shift from private car to different modes of transport, such as walking, cycling and environmentally friendly methods of travel. The integration of environmentally friendly/smart methods for short-distance travel, along with the car-user, will make Tullamore a safer, pleasant and efficient town to live, work, do business and visit.	C1 C2						B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 CH1 CH2 L1
TTEP 08-14 It is Councils' policy to continue the programme of improvement of footpaths/cycle paths throughout the town and to further develop/extend the network of interlinked pedestrian/cycle routes throughout the town and environs.	C1 C2						B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 CH1 CH2 L1
TTEP 08-15 It is Councils' policy to assist and support the further improvement of public transport services for Tullamore and in particular facilitate in the provision and promotion of privately run transportation systems.	C1 C2						B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 CH1 CH2 L1
TTEP 08-16 It is Councils' policy to support and facilitate the operation of existing bus services and to facilitate the provision of improved facilities for bus users, including increased destinations and frequencies, especially between major nodes of the Linked Gateway i.e. Athlone-Tullamore- Mullingar.	C1 C2						B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 CH1 CH2 L1
Parking Policy							
TTEP 08-17 It is the policy of the Councils to introduce traffic calming and traffic management schemes where required on particular roads and in appropriate areas throughout the Plan area to effect an overall reduction in vehicle speeds to an acceptable level and to reduce the potential for traffic congestion and associated vehicular emissions in urban areas.	C1 C2						B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 CH1 CH2 L1
TTEP 08-18 It is the Councils' policy to continue to monitor off-street parking in the town centre and to take appropriate action regarding under-supply or incorrect use. The Councils will have regard to the forthcoming Tullamore Public Realm Strategy in relation to this issue.					B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 C1 C2 CH1 CH2 L1		

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TTEP 08-19 It is the Councils' policy to continue to secure adequate parking provision for the town and undertake accompanying enforcement to ensure that best use is made of this provision. The Councils will have regard to the Tullamore Public Realm Strategy in relation to this issue.			CH1 CH2	B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 C1 C2 L1		
TTEP 08-20 It is the Councils' policy to require that car parking for disabled persons for all development sites and public car parking areas are in accordance with the provisions and standards set out by the National Disability Association in "Building for everyone" published in 2002. In particular the Councils will require that adequate disabled car parking spaces will be provided for each development site or public car parking area, at convenient and easily accessible locations, clearly delineated for use by people with impaired mobility and with sufficient access aisles immediately adjoining each car parking space.				B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 C1 C2 CH1 CH2 L1		
TTEP 08-21 It is the Councils' policy to require the provision of safe bicycle parking facilities where planning permission is granted for apartment blocks, shopping centres, offices etc.	C1 C2					B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 C1 C2 CH1 CH2 L1
Technical Development Standards Policy						
TTEP 08-22 It is the Councils' policy that permissible development requiring direct access (i.e. other than via a public road) to the national secondary roads, outside designated speed limits in Tullamore environs, will be restricted to the residential requirements of established landowners (e.g. farmers) and their sons/daughters only, where the requirement to live on their land is essential for the management of the land. It must be clearly demonstrated in the case of permissible development that a "need" for the dwelling is established and that no reasonable alternative site with access off a minor road is available. There will be no direct access to the Bypass Road.						B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 C1 C2 CH1 CH2 L1
TTEP 08-23 It is the Councils' policy to ensure that developments that generate significant traffic movement as a result of the use proposed are subject to a Traffic Impact Assessment. The Councils may also require the provision of Road Safety Audits in the case of substantial road works. These should be prepared with reference to the NRA's Traffic and Transport Assessment Guidelines (TTA).	C1 C2					B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 CH1 CH2 L1
TTEP 08-24 As part of the promotion Tullamore's image as a "green cycle/transport town", it is the Councils' policy, where feasible, to require the provision of cycleways and walkways as part of new development.	C1 C2					B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 CH1 CH2 L1
TTEP 08-25 It is the Councils' policy to apply car-parking requirement standards to all new developments in the town in accordance with Chapter 14: Development Standards. It is policy to consider the relaxation of same where a proposed development warrants this relaxation. Where a development is facilitated by public car parking accommodation which has been or will be provided, it is the Councils' policy to ensure a contribution towards the cost of providing such parking accommodation shall be required, as provided by the Planning and Development Acts 2000 to 2009.			CH1 CH2	L1		B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5

Strategic/ Transport and Land-Use Objectives						
TTEO 08-01 To complete the Tullamore By-Pass as shown indicatively on Map 8.1.					B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 C1 C2 CH1 CH2 L1	
TTEO 08-02 To secure the provision of a Western Bypass/Relief Road to the West of Tullamore Town linking the N80 to the north west of the town with the N52 to the south west of the town as shown indicatively on Map 8.1.					B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 C1 C2 CH1 CH2 L1	
TTEO 08-03 To Prepare a Transportation Study for Tullamore which will inform all types of movement within the plan area.		C1 C2			B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 CH1 CH2 L1	
TTEO 08-04 Implement the Tullamore Transportation Study when adopted.		C1 C2			B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 CH1 CH2 L1	
TTEO 08-05 To secure the provision of the network of internal distributor routes to allow the masterplan areas to be developed in a plan led manner.					B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 CH1 CH2 L1	
TTEO 08-06 To extend and improve the existing distributor road system, where necessary, to accommodate the growing/changing movement patterns within the town. Including:					B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 CH1 CH2 L1	
<ul style="list-style-type: none"> • Improve connectivity at the interface between the southern masterplan area and Spollenstown. • Realign Chancery Lane. • Provide a link road between Riverside and Church Avenue. • Reconfigure the Kilcruttin intersection at the Railway Station. • Improve connectivity between the north-eastern quadrant of the town and the existing road network. Utilising the former access way created to construct the hospital. 						
TTEO 08-07 Notwithstanding the above, Arden Heights, Knockowen Road and Maple Grove will maintain their status as cul-de-sacs.						B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 C1 C2 CH1 CH2 L1

Traffic & Parking Objectives						
TTEO 08-08 To encourage and support the development of multi-storey car parking facilities within Tullamore Town within appropriate locations to accommodate the centralised provision of easily accessible car parking for users and visitors to the town.				B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 C1 C2 CH1 CH2 L1		
TTEO 08-09 To progressively implement the recommendations of the Tullamore Transportation Study in order to: -promote greater efficiency in traffic circulation -provide additional car parking spaces in the town -provide more public disabled parking spaces throughout the town centre			CH1 CH2	B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 CH1 CH2 L1		
TTEO 08-10 Facilitate traffic movement by encouraging the construction of the distributors highlighted in map 8.1. Their provision will allow traffic calming and an extension to the public realm. Significant calming in the town centre on High Street, Bridge Street and O'Connor Square will allow the creation of a pedestrian priority area in the town centre. This will be informed by the Tullamore Transportation Study and the Public Realm Study.	C1 C2			B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 CH1 CH2 L1		
Non-Vehicular Access Objective						
TTEO 08-11 To facilitate and provide disabled car parking for all development sites and public car parking areas in accordance with the provisions and standards set out by the National Disability Association in "Building for everyone" published in 2002.				B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 CH1 CH2 L1		
TTEO 08-12 - Develop a network of interlinked pedestrian priority linkages through the town. - Pedestrianise part of Bury Quay/Offaly St. area - Provide a new pedestrian bridge adjacent to Bury Quay, linking Kilbride Park and Clontarf Road - Pedestrianise North side of O'Connor Square to provide a focal urban space - Complete pedestrian link between O'Connor Square and Market Square via the disused bridge and Church St, in conjunction with part-pedestrianisation of O'Connor Square. - Re-open Meath Lane. - Investigate the feasibility of creating linkages, pedestrian and/or cycleways as follows: 1. From Whitehall to Riverside along the Tullamore River. 2. From Patrick Street to Bridge Centre. 3. From the Tanyard to High Street via Roselawn. - Preserve and improve, where necessary all existing pedestrian and cycle routes	C1 C2			B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 CH1 CH2 L1		
TTEO 08-13 To require the provision of cycleways and pedestrian walkways as part of new developments, to connect both newly and existing developed areas to areas where travel demand is greatest e.g. schools, the hospital, the Town Centre and retail areas. Where such cycle or pedestrian ways are being proposed to link with long established residential areas, the views of the public will be invited and considered through the development management and approval process.	C1 C2			B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 CH1 CH2 L1		

Public Transport Objective						
TTEO 08-14 Facilitate the creation of a public transport interchange node centred on the Tullamore Railway Station including car parking, bus stops, and associated facilities	C1 C2					B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 CH1 CH2 L1

8.8 Chapter 9: Tourism

	Likely to <u>Improve</u> status of SEOs	Probable <u>Conflict</u> with status of SEOs- unlikely to be mitigated	Potential <u>Conflict</u> with status of SEOs- likely to be mitigated	<u>Uncertain</u> interaction with status of SEOs	<u>Neutral</u> Interaction with status of SEOs	<u>No Likely</u> interaction with status of SEOs
Aim						
To promote Tullamore as a tourism destination and to continue to support and facilitate the development and diversification of tourism in Tullamore in an environmentally sustainable manner.	B1 B2 B3 S1 W1 W2 C1 C2 W4 W5 CH1 CH2 W3		B1 B2 B3 HH1 S1 W1 W2 C1 C2 W4 W5 CH1 CH2 W3	L1		
Policy						
TTEP 09-01 It is Councils' policy to promote and foster a growing sense of innovation and entrepreneurial activity in the tourism sector in Tullamore.				B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 C1 C2 CH1 CH2 L1		
TTEP 09-02 It is Councils' policy to continue to support and encourage increased co-ordination, cohesion and linkages between agencies involved in tourism development for example Failte Ireland, Waterways Ireland and Offaly Local Authorities and to assist projects which will improve the amenities of the town.				B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 C1 C2 CH1 CH2 L1		
TTEP 09-03 It is Councils' policy to protect natural resources on which tourism is based through the enforcement of policies in relation to resource protection, architectural conservation, water quality, bio-diversity and holiday home development.	B1 B2 B3 HH1 W1 W2 W4 W5 CH2 L1					S1 W3 C1 C2 CH1

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TTEP 09-04 It is Councils' policy to further investigate the potential of and opportunities for the development of trails including walking, cycling and driving, for the provision of appropriate services along these trails and for the development of linkages between trails within the County and adjoining counties.	C1 C2					B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 CH1 CH2 L1
TTEP 09-05 It is councils' policy to favourably consider tourism infrastructure development related to sport, recreation and tourism information including boating, angling, walking and pony trekking routes, golf courses, adventure centres and interpretive centres etc. subject to proper planning and sustainable development and the policies of this plan.	B1 B2 B3 HH1 S1 W1 W2 W3 C1 C2 W4 W5 CH1 CH2 L1					
TTEP 09-06 It is the Councils policy to promote and facilitate conference facilities in Tullamore and to support future tourism opportunities which may offer the opportunity to build on the existing attraction of the town, based on its location.				B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 C1 C2 CH1 CH2 L1		
TTEP 09-07 It is the Councils' policy that where tourism related developments involve the interaction of a number of the above listed activities with accommodation facilities, such proposals should be facilitated where integration and linkage between tourism facilities is promoted and/or such facilities can clearly demonstrate a high level of flexibility for alternative uses.	C1 C2					B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 CH1 CH2 L1
TTEP 09-08 It is the Councils' policy to encourage tourism related developments where the scale and size of the proposed developments is appropriate and in keeping with the character of the area and respect the setting and integrity of Protected structures.	CH1 CH2 L1					B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 C1 C2
TTEP 09-09 It is the Councils' policy to support the continued development of Theatre, Arts, Culture and other tourist events as they may arise				B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 C1 C2 CH1 CH2 L1		
TTEP 09-10 It is the Councils' policy to facilitate and encourage the provision of a range of accommodation and ancillary tourist services.				B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 C1 C2 CH1 CH2 L1		

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TTEP 09-11 It is the Councils' policy to protect the character of the town and its heritage in order to provide a sound basis for the development of tourism.	B1 B2 B3 HH1 W1 W2 C1 C2 W4 W5 CH1 CH2 L1					S1 W3 C1 C2
Objectives						
TTEO 09-01 It is an objective of the Councils' to implement the Tourism Strategy for Offaly relevant to Tullamore, published in 2006 (McIver Consulting)				B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 C1 C2 CH1 CH2 L1		
TTEO 09-02 It is an objective of the Councils' to establish a signage policy committee to design and investigate funding opportunities for integrated directional and interpretive signage with a timeframe for implementation and guidance relating to the appearance and location.				B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 C1 C2 CH1 CH2 L1		
TTEO 09-03 It is an objective of the Councils' to prepare a tourism development and management plan in association with adjoining local authorities for key tourist sites in Tullamore. This plan should include the built and natural features which have an established tourist draw and will set out requirements in relation to tourism facilities and accommodation of visitors.				B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 C1 C2 CH1 CH2 L1		
TTEO 09-04 It is an objective of the Council to co-operate with Failte Ireland, Waterways Ireland and other relevant bodies and agencies in promoting the waterways of Tullamore in respect of an overall tourism development and marketing strategy.				B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 C1 C2 CH1 CH2 L1		
TTEO 09-05 It is an objective of the Council to investigate and support best practice environmental management including energy efficiency, waste management and procurement and recycling in tourism enterprises/accommodation providers with Tullamore.	C1 C2					B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 CH1 CH2 L1
TTEO 09-06 It is an objective of the Council to work with relevant and interested parties to implement specific projects to develop tourism in Tullamore.				B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 C1 C2 CH1 CH2 L1		

TTEO 09-07 It is an objective of the Council to protect and enhance the architectural heritage of the town and streetscapes.	CH2					B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 C1 C2 CH1 L1
TTEO 09-08 It is an objective of the Council to facilitate the continued development of the Heritage Centre at Bury Quay.			CH1 CH2 W1	L1		B1 B2 B3 HH1 S1 W2 W3 W4 W5 C1 C2

8.9 Chapter 10: Infrastructure and Environment

	Likely to <u>Improve</u> status of SEOs	Probable <u>Conflict</u> with status of SEOs- unlikely to be mitigated	Potential <u>Conflict</u> with status of SEOs- likely to be mitigated	<u>Uncertain</u> interaction with status of SEOs	<u>Neutral</u> Interaction with status of SEOs	<u>No Likely</u> interaction with status of SEOs
Aim						
To continue to provide the necessary infrastructural services to support the role of Tullamore within the "Midland Linked Gateway" and as the main "driver of growth" for County Offaly, without compromising the quality of the receiving environment.					B1 B2 B3 HH1 S1 W1 W2 C1 C2 W4 W5 CH1 CH2 W3 L1	
Water Services General Policies						
TTEP 10-01 It is the Councils' policy to ensure that the provision of water and wastewater treatment facilities is undertaken in accordance with EU policies and Directives, relevant national legislation and national/regional policies.	B1 B2 B3 HH1 W1 W2 W4 W5					S1 W3 C1 C2 CH1 CH2 L1
TTEP 10-02 It is the Councils' policy to enable infrastructure and service delivery in the context of the National Development Plan, subject to available finance.	B1 B2 B3 HH1 W1 W2 C1 C2 W4 W5					S1 W3 CH1 CH2 L1
TTEP 10-03 It is the Councils' policy to provide and maintain adequate water supply, drainage and wastewater services for Tullamore as resources permit.	B1 B2 B3 HH1 W1 W2 W4 W5					S1 W3 C1 C2 CH1 CH2 L1
TTEP 10-04 It is the Councils' policy to ensure that the capacity of water supplies and wastewater facilities must be appropriate prior to the acceptance of a development proposal. The Councils may, where it is deemed appropriate, require developers to provide water services mains with capacities in excess of those required by the development being served, if required, it is in the interests of long term development of the area.	B1 B2 B3 HH1 W1 W2 W4 W5					S1 W3 C1 C2 CH1 CH2 L1

Water Supply Policies						
TTEP 10-05 It is the Councils' policy to provide public water supply for Tullamore, in accordance with Tullamore's position within the County Settlement Hierarchy and Offaly County Council's Assessment of Needs 2007-2014 where feasible and where approved by the DoEHLG. The Councils will seek new water supply sources and to continue to improve the existing water supply services where financial resources permit. New services will also be provided where necessary and practicable. The granting of planning permission for any development will be partially dependent on the Councils satisfaction that the resultant demand for water can be met.	HH1 W5					B1 B2 B3 S1 W1 W2 W3 W4 C1 C2 CH1 CH2 L1
TTEP 10-06 It is the Councils' policy to require developments to connect to public water supplies where adequate, or where proposals for upgrading works are put forward, as appropriate.	HH1 W5					B1 B2 B3 S1 W1 W2 W3 W4 C1 C2 CH1 CH2 L1
Water Conservation Policy						
TTEP 10-07 It is the Councils' policy to encourage rainwater harvesting by commercial and residential properties for re-use on the individual sites.	W5		HH1			B1 B2 B3 S1 W1 W2 W3 W4 C1 C2 CH1 CH2 L1
TTEP 10-08 It is the Councils' policy to continue to facilitate, encourage and comply with best practice methods in water conservation within Tullamore.	W5					B1 B2 B3 HH1 S1 W1 W2 W3 W4 C1 C2 CH1 CH2 L1
Wastewater Treatment Policies						
TTEP 10-09 It is the Councils' policy to make provision for improved and additional wastewater services on a planned basis, related to present and future needs of housing, industry and commerce, in accordance with Tullamore's position within the County Settlement Hierarchy and Offaly County Council's Assessment of Needs 2007-2014 where feasible and where approved by the DoEHLG. The Councils will continue to improve and extend the existing wastewater systems and wastewater treatment service within the town where financial resources permit. Planning permission will not be granted for developments where the proposed development is likely to cause an overload on wastewater facilities, or endanger public health.	B1 B2 B3 HH1 W1 W2 W4					S1 W3 W5 C1 C2 CH1 CH2 L1
TTEP 10-10 It is the Councils' policy to control impacts of wastewater produced in the most environmental, sustainable and cost-effective manner.	B1 B2 B3 HH1 W1 W2 W4					S1 W3 W5 C1 C2 CH1 CH2 L1
TTEP 10-11 It is the Councils' policy to require/implement appropriate buffer zones surrounding wastewater treatment plants in Tullamore.	HH1					B1 B2 B3 S1 W1 W2 W3 W4 W5 C1 C2 CH1 CH2 L1
TTEP 10-12 It is the Councils' policy to have regard to and conform with policies and objectives contained in Offaly County Council's Sludge Management Plan 2001.	B1 B2 HH1 W1 W2					B3 S1 W3 W4 W5 C1 C2 CH1 CH2 L1

Surface Water Disposal Policies						
TTEP 10-13 It is the Councils' policy to limit and manage the permitted stormwater run-off from all new developments. The maximum permitted surface water outflow from any new development is to be restricted to that of a Greenfield site before any development took place unless otherwise agreed by the Planning Authority. It is therefore Councils Policy to require all proposed new developments within Tullamore to provide 'Sustainable Urban Drainage Systems' (SuDs) as part of their development proposals.	W1 W2 W3 HH1					B1 B2 B3 S1 W4 W5 C1 C2 CH1 CH2 L1
TTEP 10-14 It is the Councils' policy that landuses shall not give rise to the pollution of ground or surface waters during the construction or operation of developments. The Councils encourage adherence to best practice in design, installation and management of systems for the interception, collection and appropriate disposal of treatment of all surface waters and effluents.	B1 B2 B3 HH1 W1 W2 W4 W5					S1 W3 C1 C2 CH1 CH2 L1
Flooding Policies						
TTEP 10-15 It is Councils' policy to ensure that development proposed is not itself subject to an inappropriate risk of flooding, and/or that it does not increase flood risk or flood damage at other locations.	W3 HH1					B1 B2 B3 S1 W1 W2 W4 W5 C1 C2 CH1 CH2 L1
TTEP 10-16 It is Councils policy to have regard to any mapping of flood patterns, in particular those carried out by the Office of Public Works and www.floodmaps.ie .	W3 HH1					B1 B2 B3 S1 W1 W2 W4 W5 C1 C2 CH1 CH2 L1
TTEP 10-17 It is the Councils' policy to comply with the recommendations arising from the "Tullamore Flood Risk Assessment and Management Study 2008" and the Councils will require proposed developments to demonstrate full compliance with the recommendations of the Study, where required.	W3 HH1					B1 B2 B3 S1 W1 W2 W4 W5 C1 C2 CH1 CH2 L1
TTEP 10-18 It is the Councils' policy that in the case of development proposals in floodplain areas, the mitigation measures as outlined in the Tullamore FRAM 2008 shall be fully implemented prior to the proposed development taking place.	W3 HH1					B1 B2 B3 S1 W1 W2 W4 W5 C1 C2 CH1 CH2 L1
Development Contributions Policies						
TTEP 10-19 It is the Councils' policy, where a development is facilitated by public services which have been or will be provided, to require contributions towards the cost of providing such services, as provided by the Planning and Development Acts 2000 to 2009. Contributions shall be levied at the rate prevailing at that time.						B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 C1 C2 CH1 CH2 L1
TTEP 10-20 It is the Councils' policy, in cases where a development includes the provision of roads, footpaths or other services, to normally look for satisfactory security from the developer in order to secure the provision and maintenance of such services.						B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 C1 C2 CH1 CH2 L1

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Environment Policies						
TTEP 10-21 It is the Councils' policy to implement relevant EU and Irish Legislation pertaining to the environment.	B1 B2 B3 HH1 W1 W2 W3 C1 C2 W4 W5 CH1 CH2 L1					
TTEP 10-22 It is the Councils' policy to comply with the provisions of the EU Water Framework Directive in order to fulfil obligations relating to water quality for the Shannon River Basin District and therefore to implement the provisions of the Shannon River Basin Management Plan. To this end, the Councils will continue to co-operate with other statutory authorities/agencies and stakeholders in the preparation and implementation of existing water quality monitoring and management plans and also implementation of the Shannon River Basin District Management Plan.	B1 B2 B3 HH1 W1 W2 W4 W5					S1 W3 C1 C2 CH1 CH2 L1
TTEP 10-23 It is the Councils' policy to protect groundwater sources and to protect drinking water supplies by means of Aquifer Protection Zones. Developments will be strictly controlled within any Aquifer Protection Zone in Tullamore (refer to map 10.1)	B1 B2 B3 HH1 W1 W2 W5					S1 W3 W4 C1 C2 CH1 CH2 L1
TTEP 10-24 It is the Councils' policy to ensure that agricultural developments are designed and constructed in a manner that will ensure that watercourses and sources of water are protected from the threat of pollution.	B1 B2 B3 HH1 W1 W2 W5					S1 W3 W4 C1 C2 CH1 CH2 L1
TTEP 10-25 It is the Councils' policy, in conjunction with the EPA, to continue its programme of monitoring water quality of surface water and groundwater to ensure that waste from developments are discharged in a manner that will not lead to pollution of such waters.	B1 B2 B3 HH1 W1 W4					S1 W2 W3 W5 C1 C2 CH1 CH2 L1
TTEP 10- 26 It is the Councils' policy to implement relevant air quality and noise legislation in conjunction with other agencies as appropriate and to maintain good air quality in Tullamore.	HH1					B1 B2 B3 S1 W1 W2 W3 W4 W5 C1 C2 CH1 CH2 L1
TTEP 10-27 It is the Councils' policy that planning permission will not normally be granted for new developments or extensions of existing industrial, commercial, leisure, or other uses that produce significant and unacceptable levels of noise and/or vibration at site boundaries or within adjacent sensitive areas, especially residential areas.	HH1					B1 B2 B3 S1 W1 W2 W3 W4 W5 C1 C2 CH1 CH2 L1
TTEP 10-28 It is the Councils' policy to ensure the provision of quality cost effective waste infrastructure and services, which reflect and meet the needs of the community and to ensure that the "polluter pays principle" is adhered to in all waste management activities.	B1 B2 B3 HH1 W1 W4					S1 W2 W3 W5 C1 C2 CH1 CH2 L1
TTEP 10-29 It is the Councils' policy to secure the Waste Hierarchy objectives of the Waste Management Plan for the Midlands Region, insofar as it relates to the Tullamore area, and therefore enforce the provisions of the Waste Management Acts 1996-2001.	HH1					B1 B2 B3 S1 W1 W2 W3 W4 W5 C1 C2 CH1 CH2 L1
TTEP 10-30 It is the Councils' policy to co-operate with the EPA having regard to licensing arrangements for Scheduled Industries in Tullamore in accordance with the provisions of the Environmental Protection Agency Act 1992.	HH1					B1 B2 B3 S1 W1 W2 W3 W4 W5 C1 C2 CH1 CH2 L1

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TTEP 10-31 It is the Councils' policy to support National and E.U. Directives for waste reduction and waste disposal, including the re-cycling and re-use of waste. It will be policy to encourage the expansion of recycling activities in the town in accordance with approved procedures.	HH1 C1 C2					B1 B2 B3 S1 W1 W2 W3 W4 W5 CH1 CH2 L1
TTEP 10-32 It is the Councils' policy that all proposed residential development applications of 100 units or greater will be assessed and if necessary required to provide a set of bring banks for recyclables material to the specifications and design required by Offaly County Council. A similar policy will also apply to commercial developments such as shopping centres where large volumes of people congregate. Such developments shall, where considered necessary, be required to provide a set of bring banks as part of their car park layout.	HH1 C1 C2					B1 B2 B3 S1 W1 W2 W3 W4 W5 CH1 CH2 L1
TTEP 10-33 It is the Councils' Policy to require Waste Management Plans to be prepared for Construction and Demolition Projects of a particular scale in accordance with Best Practice Guidelines issued by the Department of Environment, Heritage and Local Government in July 2006. It is Councils policy to require developers of projects with significant potential for the generation of construction and demolition waste to prepare a Project Construction and Demolition Waste Management Plan where the project exceeds any of the following thresholds: 1. New residential developments of 10 houses or more. 2. New residential developments other than (1) above, including institutional, educational, health and other public facilities, with an aggregate floor area in excess of 1,250m ² . 3. Demolition/renovation/refurbishment projects generating in excess of 100m ³ in volume of construction and demolition waste. 4. Civil engineering projects in excess of 500m ³ of waste, excluding waste materials used for development works on the site.	HH1 C1 C2					B1 B2 B3 S1 W1 W2 W3 W4 W5 CH1 CH2 L1
TTEP 10-34 It is the Councils' policy that where proposals are being considered for the following: <ul style="list-style-type: none">New establishments at risk of causing major accidents,The expansion and/or modification of existing establishments designated under the directive; andOther developments proposed near to existing establishments. The Councils will require that applicants must demonstrate that the following considerations are taken into account: <ul style="list-style-type: none">Prevention of major accidents involving dangerous substances,Public health and safeguarding of public healthand the protection of the environment.	B1 B2 B3 HH1 W1					S1 W2 W3 W4 W5 C1 C2 CH1 CH2 L1
TTEP 10-35 It is the Councils' policy, where obsolete and derelict sites exist, the improvement and screening of neglected sites and the renewal, repair and/or maintenance of structures, and the removal of unsightly vehicle parts and general refuse in line with the Councils powers under the Waste Management Acts 1996-2001, the Derelict Sites Act 1990 and the Litter pollution Acts 1997-2001 will be ensured. The Councils will continue to maintain their register of derelict sites and encourage and facilitate the redevelopment of same.	S1		CH2			B1 B2 B3 HH1 W1 W2 W3 W4 W5 C1 C2 CH1 L1
Energy Management Policies						
TTEP 10-36 It is the Councils' Policy to minimise emissions to the air of greenhouse gases in order to contribute to a reduction and avoidance of human induced climate change in accordance with the Kyoto agreement. The Councils support, and are committed to, the National Climate Change Strategy, and to facilitate measures that seek to reduce emissions of greenhouse gases. In this regard, the Councils will support any initiatives taken to provide for more sustainable forms of energy use.	C1 C2					B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 CH1 CH2 L1

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TTEP 10-37 It is the Councils' policy to support national and international initiatives for limiting emissions of greenhouse gases and encouraging the development of renewable energy sources.	C1 C2					B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 CH1 CH2 L1
TTEP 10-38 It is the Councils' policy to facilitate the continual development of renewable energy sources having regard to the proper planning and sustainable development of the area concerned, having particular regard to amenities, landscape sensitivities and the protection of habitats and heritage, where such proposals comply with policy contained in this Development Plan, in the interests of proper planning and sustainable development.	B1 B2 B3 HH1 W1 L1					S1 W2 W3 W4 W5 C1 C2 CH1 CH2
TTEP 10-39 It is the Councils' policy to promote energy conservation and efficiency measures and facilitate innovative building design that promotes energy efficiency and use of renewable energy sources in accordance with national policy and guidelines.	C1 C2					B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 CH1 CH2 L1
TTEP 10-40 It is the Councils' policy to promote, encourage and facilitate the provision of micro-renewable energy.				B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 C1 C2 CH1 CH2 L1		
TTEP 10-41 It is the Councils' policy to support the development of renewable energy in Tullamore environs, where it is considered appropriate. Such development will be assessed on a case-by-case basis.				B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 C1 C2 CH1 CH2 L1		
TTEP 10-42 It is the Councils' policy to support and facilitate the adequate provision of both electricity and gas supply within the plan area.			CH1 CH2	L1		B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 C1 C2
Telecommunications Infrastructure Policies						
TTEP 10-43 The Councils recognise the national and local importance of a high quality telecommunications service. It is the Councils' policy to achieve a balance between facilitating the provision of telecommunications services in the interests of social and economic progress, sustaining residential amenities and environmental quality. The Councils will have regard to the Department of the Environment Guidelines on Telecommunications Antennae and Support Structures in assessing development proposals.			CH1 CH2	L1		B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 C1 C2
TTEP 10-44 It is the Councils' policy to support the infrastructural renewal and development of electricity networks in the area. The development of a secure and reliable electricity transmission infrastructure is recognised as a key factor for supporting economic development and attracting investment to the area.			CH1 CH2	L1		B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 C1 C2

TTEP 10-45 It is the Councils' policy to avoid an unnecessary proliferation of masts. It is the Councils' policy to encourage owners and operators to facilitate the co-location of antennae on existing support structures and masts.	L1 CH1 CH2					B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 C1 C2
TTEP 10-46 The Councils acknowledge the importance of telecommunications within Tullamore, however design, siting and visual impact are of paramount importance. It is the Councils' policy to restrict the provision of overground masts and antennae within the following areas in particular: <ul style="list-style-type: none"> Designated Areas of High Amenity Areas adjoining or within the curtilage of protected structures or within ACA's On or within the setting of archaeological sites, structures and zones. 	L1 CH1 CH2					B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 C1 C2
TTEP 10-47 It is the Councils' policy to facilitate the provision of broadband Telecommunications in Tullamore, in conjunction with the Department of Communications, Energy and Natural Resources and any other relevant bodies.			CH1 CH2	L1		B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 C1 C2
General Objective						
TTEO 10-01 To provide infrastructural services to meet present and future demand and to facilitate the orderly expansion of the town.	B1 B2 B3 HH1 W1 W2 C1 C2 W4 W5					S1 W3 CH1 CH2 L1
TTEO 10-02 The Councils, in association with relevant key stakeholders, will prepare and implement An Integrated Phased Implementation Plan/Programme for Critical Water, Surface Drainage and Waste Water related infrastructure to service the Town and Environs (including the 4 Master Plan areas). This Plan /Programme will take into account: <ul style="list-style-type: none"> The phasing of the development of the Master Plan areas; the adequacy - in terms of capacity and performance - of water and wastewater related infrastructure servicing the Plan area; the capacity of the receiving waters resources in the zone of influence of the Plan to assimilate additional discharges arising from waste water (reference EPA Assimilative Capacity Modelling System, water quality data and Water Framework Risk Categorisations); and the timeframe for provision of new water and waste water infrastructure to serve additional populations. <p>Permissions for development will be linked to availability of appropriate water supply/waste water treatment infrastructure and capacity.</p>	B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 C1 C2 L1					CH1 CH2
Water Supplies Objective						
TTEO 10-03 To provide and/or facilitate the provision and/or upgrading of water supplies in accordance with Tullamore's position within the County Settlement Hierarchy and Offaly County Council's Assessment of Needs 2007-2014 where feasible and where approved by the DoEHLG.	B1 B2 B3 HH1 W1 W2 W4					S1 W3 W5 C1 C2 CH1 CH2 L1
Wastewater Services Objective						
TTEO 10-04 To provide and/or facilitate the refurbishment and or upgrading of wastewater treatment schemes, in accordance with Tullamore's position within the County Settlement Hierarchy and Offaly County Council's Assessment of Needs 2007-2014 where feasible and where approved by the DoEHLG and any other measures where an immediate need arises, subject to adequate resources being available.	B1 B2 B3 HH1 W1 W2 W4					S1 W3 W5 C1 C2 CH1 CH2 L1
Surface Water Disposal Objective						
TTEO 10-05 To make provisions for the extension and improvement of surface water disposal infrastructure.	B1 B2 B3 HH1 W1 W2 W4					S1 W3 W5 C1 C2 CH1 CH2 L1

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Environment Objective						
TTEO 10-06 To protect and preserve the quality of surface water, ground water and drinking water in Tullamore through the relevant legislative provisions.	B1 B2 B3 HH1 W1 W2 W4 W5					S1 W3 C1 C2 CH1 CH2 L1
TTEO 10-07 To protect Aquifer Protection Zones from contamination.	HH1 W2 W5					B1 B2 B3 S1 W1 W3 W4 C1 C2 CH1 CH2 L1
TTEO 10-08 To continue to work with the EPA, the Shannon River Basin District Authority and any other stakeholders, in relation to implementing the Water Quality Management Plan for the Shannon River Basin District.	B1 B2 B3 HH1 W1 W2 W4 W5					S1 W3 C1 C2 CH1 CH2 L1
TTEO 10-09 To continue its programme of monitoring water quality in the Shannon River Basin District and ensure that the objectives under the Water Framework Directive 2000 are met in conjunction with the EPA.	B1 B2 B3 HH1 W1 W2 W4 W5					S1 W3 C1 C2 CH1 CH2 L1
TTEO 10-10 To ensure that all agricultural activities adhere to any legislation on water quality including the European Communities (Good Agricultural Practice for Protection of Waters) Regulations 2006, S.I. No. 378 of 2006.	B1 B2 B3 HH1 W1 W2 W4 W5					S1 W3 C1 C2 CH1 CH2 L1
TTEO 10-11 To implement the relevant provisions of Water Pollution Legislation.	B1 B2 B3 HH1 W1 W2 W4 W5					S1 W3 C1 C2 CH1 CH2 L1
TTEO 10-12 To protect Tullamore's waters from pollution, particularly by over-enrichment by nutrients, especially nitrates and phosphorous.	B1 B2 B3 HH1 W1 W2					S1 W3 W4 W5 C1 C2 CH1 CH2 L1
TTEO 10-13 To issue and monitor, where appropriate, effluent licences for discharges to sewers and waterbodies.	B1 B2 B3 HH1 W1 W2					S1 W3 W4 W5 C1 C2 CH1 CH2 L1
TTEO 10-14 The Councils support National and E.U. Directives for waste reduction and waste disposal, including the recycling and re-use of waste. It will be policy to encourage the expansion of recycling activities in the town in accordance with approved procedures and to continue to expand environmental awareness initiatives designed to create increased public awareness of waste prevention, minimisation and reuse. Particular emphasis should be placed on the commercial and industrial sector.	HH1 C1 CH2					B1 B2 B3 S1 W1 W2 W3 W4 W5 CH1 CH2 L1
TTEO 10-15 To implement the provisions of the Waste Management Hierarchy and the current Waste Management Plan for the Midlands Region. As a result, developments in Tullamore will be expected to take account of the provisions of the Waste Management Plan for the Midlands Region and adhere to those elements of it that relate to waste prevention and minimisation, waste recycling facilities, and the capacity for source segregation.	HH1 C1 CH2					B1 B2 B3 S1 W1 W2 W3 W4 W5 CH1 CH2 L1
TTEO 10-16 To implement the legislative provisions in relation to historic landfill sites in Tullamore and to undertake risk assessments where required and any subsequent remedial measures where necessary.	HH1					B1 B2 B3 S1 W1 W2 W3 W4 W5 C1 C2 CH1 CH2 L1

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TTEO 10-17 To use statutory powers to prohibit the illegal deposit and disposal of waste materials, refuse and litter, and to authorise and regulate, waste disposal within the town in an environmentally sustainable manner.	HH1					B1 B2 B3 S1 W1 W2 W3 W4 W5 C1 C2 CH1 CH2 L1
TTEO 10-18 To ensure that an efficient and adequate level of fire and rescue cover is available at all times. The Councils will continue with its programme for the development and improvement of the Fire Service.	HH1					B1 B2 B3 S1 W1 W2 W3 W4 W5 C1 C2 CH1 CH2 L1
Energy Management Objectives						
TTEO 10-19 To facilitate the promotion and construction of energy efficient developments in Tullamore.	C1 C2					B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 CH1 CH2 L1
TTEO 10-20 To support the further extension of the gas grid into County Offaly to serve existing and envisaged future residential development and commercial and industrial activity.			CH1 CH2 L1			B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 C1 C2
TTEO 10-21 To support and facilitate the provision of high-voltage electricity infrastructure to cater for natural growth, new and existing large customers. Further, it is an objective of the Councils' to ensure, insofar as is possible, that the necessary infrastructure is in place to support the existing and future economy of Tullamore, to support economic development and to attract investment.			CH1 CH2 L1			B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 C1 C2
TTEO 10-22 The control, having regard to the provisions of the Major Accidents Directive and any regulations, under the enactment, giving effect to that Directive, of <ul style="list-style-type: none"> Siting of new establishments, Modification of existing establishments, and Development in the vicinity of such establishments for the purposes of reducing the risk, or limiting the consequences, of a major accident. 	B1 B2 B3 HH1 W1 W2 W5					S1 W3 W4 C1 C2 CH1 CH2 L1
TTEO 10-23 To implement the publication by Offaly County Council entitled "Draft Climate Change Strategy 2009-2014" (when adopted).				B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 C1 C2 CH1 CH2 L1		
Telecommunications Infrastructure Objectives						
TTEO 10-24 To continue to support and facilitate the creation of a high quality ICT within Tullamore.				CH1 CH2	L1	B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 C1 C2

TTEO 10-25 To implement on a phased basis a programme of under grounding existing overhead cables throughout the town centre and developed areas of the town up to and including 38 kv lines; and seek Departmental financial support to undertake such works.	L1 CH2			CH1		B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 C1 C2
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8.10 Chapter 11: Community, Social, Cultural and Sports Development

	Likely to <u>Improve</u> status of SEOs	Probable <u>Conflict</u> with status of SEOs- unlikely to be mitigated	Potential <u>Conflict</u> with status of SEOs- likely to be mitigated	<u>Uncertain</u> interaction with status of SEOs	<u>Neutral</u> Interaction with status of SEOs	<u>No Likely</u> interaction with status of SEOs
Aim						
Promote the development of Tullamore as a part of the Midlands Linked Gateway, where people can live and work, with access to a range of community facilities that are a vital component in increasing social inclusion and contribute to the quality of life for all.	C1 C2 CH1 CH2		B1 B2 B3 HH1 S1 W1 W2 C1 C2 CH1 CH2 W3	L1		
Community - General Policies						
TTEP 11-01 The Councils recognise the importance of community facilities in the welfare and development of society. It is the Councils' policy to assist, where feasible, in social, community and cultural development within Tullamore and to encourage and facilitate the provision and extension of community facilities to serve individual communities throughout Tullamore and to co-operate with any bodies which wish to expand the provision of social facilities in Tullamore. The Councils shall encourage the provision and extension of community and sporting facilities to serve individual communities throughout the town. Social development initiatives at a community level will be encouraged and assisted where possible by the Councils. Consideration will be given on an individual basis to the provision of support for community projects, and/or making available sites for same.	C1 C2		B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 CH1 CH2	L1		
TTEP 11-02 It is the Councils' policy to support and facilitate the County Development Board in its key objectives of strengthening the community sector in Tullamore and developing a long-term strategy of social investment at community level.				B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 C1 C2 CH1 CH2 L1		
TTEP 11-03 It is the Councils' policy to identify suitable sites for community facilities within Tullamore (refer to Chapter 5: Masterplans), particularly in newly developing areas.				B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 C1 C2 CH1 CH2 L1		
TTEP 11-04 It is the Councils' policy that proposals for new developments will be encouraged to provide new facilities (including play facilities) for community use. Proposals should be in suitable locations and be compatible with adjoining developments. Such proposals will be subject to other policies of this Development Plan, in particular those concerning open space provision. Further, it is the Councils' policy to encourage the provision of multi-functional buildings, which are adaptable to accommodating a range of community facilities, where appropriate. (This is particularly apparent in the case of new housing estates, whereby a crèche facility can be designed to be re-developed in subsequent years, for an alternative community facility or where buildings within existing schools can be used for wider community uses outside of school hours). Further, it is the Councils' policy that the multi-use of public spaces will be encouraged.	C1 C2		B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 CH1 CH2	L1		

Childcare Policies						
TTEP 11-05 It is the Councils' policy to encourage the provision of childcare facilities in residential areas, employment areas, retail centres and other areas as appropriate, when development proposals are put forward for consideration.	C1 C2					B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 CH1 CH2 L1
TTEP 11-06 It is the Councils' policy to assist the County Childcare Committee in identifying priority areas within Tullamore for the provision of childcare facilities.	C1 C2					B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 CH1 CH2 L1
Elderly Policies						
TTEP 11-07 It is the Councils' policy to facilitate the development of facilities and new homes for the elderly within the plan area. The provision of new residential homes within open countryside locations of the environs areas of Tullamore will be considered only in such cases where it is clearly demonstrated that due to the nature of the services to be provided, a rural location is necessary and that no suitable alternative sites are available within zoned lands.	C1 C2		B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 CH1 CH2	L1		
Recreation, Open Space and Amenity Facilities Policies						
TTEP 11-08 It is the Councils' policy to preserve the landuse of existing public and private recreation areas to prevent to loss of existing leisure facilities, including sports clubs, grounds, built leisure facilities and areas of public and private open space through redevelopment to other uses. In exceptional circumstances, a change of use may be sought, but must demonstrate that alternative recreational provisions are provided in the same area or in a suitable alternative location within the plan area. Further, it is the Councils' policy to identify, where possible and appropriate, new open space, amenity sites, recreational facilities/areas and existing sites in areas of future extension within Tullamore. (refer to Chapter 5: Masterplans). It is Council's policy to co-operate with sporting organisations who wish to expand or develop facilities.	C1 C2 B3		S1			B1 B2 HH1 W1 W2 W3 W4 W5 CH1 CH2 L1
TTEP 11-09 It is the Councils' policy to encourage and facilitate the provision of community and recreational infrastructure as an integral component of proposed new residential schemes and in particular, the provision of playgrounds for children.	C1 C2		B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 CH1 CH2	L1		
TTEP 11-10 It is the Councils' policy to seek opportunities to improve the quality and capacity of existing leisure facilities and where appropriate, the Councils will use their powers under the Planning and Development Acts 2000 to 2009 to require development levies to achieve the enhancement of existing facilities and the creation of new facilities.	C1 C2		B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 CH1 CH2	L1		
Education Facilities Policies						
TTEP 11-11 It is the Councils' policy to liaise, co-operate with and to facilitate the Department of Education and Science and relevant school authorities in the provision of education facilities, as appropriate. This includes the identification and reservation of sufficient land to meet the need for expansion of existing schools and/or provision of new schools for Tullamore and its catchment area and the requirements of the relevant education authority.	C1 C2		B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 CH1 CH2	L1		

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TTEP 11-12 It is Council policy to encourage and facilitate where possible, the provision of educational facilities including third level education and training centres in the town.	C1 C2		B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 CH1 CH2	L1		
Libraries Policies						
TTEP 11-13 It is the Councils' policy to ensure that the Tullamore branch of the County Library Service is strongly positioned to support: the knowledge society, social inclusion, e-Government, life-long learning initiatives, local studies, archive-services, children's services, services to rural communities, the housebound and homes for the elderly.	C1 C2					B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 CH1 CH2 L1
Arts and Culture Policies						
TTEP 11-14 It is Councils' policy, having regard to Tullamore's Gateway status and projected population growth, to facilitate the development of a dedicated multi-purpose Arts Centre in the town, as resources permit.	C1 C2			B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 CH1 CH2 L1		
TTEP 11-15 It is the Councils' policy to implement the Arts Plan 2007-2011 and the development of successive County arts plans in relation to Tullamore.						B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 C1 C2 CH1 CH2 L1
TTEP 11-16 It is the Councils' policy to maximise the per cent for art scheme in relation to major capital projects which provides opportunities for artists of all disciplines to create work to exist in the public realm. Public capital projects, for example: housing developments, roads, water and waste water treatment schemes, as well as hospitals, schools and libraries have a percentage of the total capital costs allocated for the creation of a work of art. It is the Councils policy to reflect a commitment to, and recognition of, the diversities of the scheme in line with national guidelines.						B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 C1 C2 CH1 CH2 L1
Community Healthcare Policies						
TTEP 11-17 It is the Councils' policy to promote and facilitate the improvement of health services in Tullamore, where necessary, and in particular to encourage the integration of health services and facilities with new and existing community facilities, where feasible.	C1 C2					B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 CH1 CH2 L1
TTEP 11-18 It is the Councils' policy to look favourably upon primary care centres which comprise/provide access to a range of healthcare services including General Practitioners, nurses/midwives, health care assistants, home help assistants, occupational therapists, physiotherapists, social workers and administrative personnel, as appropriate. However, the provision of individual healthcare facilities will also be considered, as appropriate.	C1 C2			B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 CH1 CH2 L1		

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TTEP 11-19 It is the Councils' policy to co-operate with the Health Services Executive (HSE) in the provision and location of health, community and social facilities. Also to co-operate with other groups who may wish to provide social services in the town.	C1 C2			B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 CH1 CH2 L1		
Burial Grounds Policies						
TTEP 11-20 It is the Councils' policy to protect the cultural heritage of historical burial grounds within Tullamore and to encourage their management and maintenance in accordance with conservation principles.	CH1 CH2					B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 C1 C2 L1
Community –General Objective						
TTEO 11-01 To encourage and facilitate the development of community centres in Tullamore at appropriate locations and to encourage the multi-use of existing facilities such as crèches and school buildings for wider community uses at times when they are not in use.	C1 C2			B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 CH1 CH2 L1		
Education Objective						
TTEO 11-02 To facilitate the provision and location of new education facilities within the existing plan area. Where out of town locations are presented, these will only be considered in exceptional circumstances. It will be an objective to extend existing education facilities, where appropriate and possible. Additional lands have been reserved for the provision of school extensions and for a new schools if required within the plan area.	C1 C2			B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 CH1 CH2 L1		
Childcare Objective						
TTEO 11-03 To facilitate the implementation of the Offaly County Childcare Committee Strategic Plan 2007-2010.	C1 C2			B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 CH1 CH2 L1		
Open Spaces/Amenity Objective						
TTEO 11-04 To develop open spaces which will encourage a range of recreational and amenity activities that will cater for both active and passive needs.	C1 C2 B3					B1 B2 HH1 S1 W1 W2 W3 W4 W5 CH1 CH2 L1
Sports and Recreation Objective						
TTEO 11-05 To support and facilitate local community groups/sporting organisations in the development of sport and recreational facilities, in particular through land-use zoning, where appropriate.	C1 C2			B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 CH1 CH2 L1		

Burial Grounds Objective						
TTEO 11-06 To provide or assist in the provision of burial grounds and extensions to existing burial grounds, by 1) reservation of land at suitable locations, 2) provision of local authority burial grounds, where feasible. Regard will be afforded to the heritage value of cemeteries and access to and information on the history, ecology, archaeology and genealogy of the sites will be promoted.	B3 CH1 CH2					B1 B2 HH1 S1 W1 W2 W3 W4 W5 C1 C2 L1
Library Facilities Objective						
TTEO 11-07 To improve current library provisions, and in particular the development of the Tullamore Central Library Project, which includes a modern library HQ, local studies department and branch library with meeting rooms and multi-functional spaces at O'Connor Square, Tullamore.	C1 C2		CH1 CH2	B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 L1		
Play Facilities Objective						
TTEO 11-08 To develop a partnership approach in funding and developing play in Tullamore, in accordance with the Councils current Play Policy/ Play Strategy.	C1 C2			B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 CH1 CH2 L1		
Arts Facilities Objective						
TTEO 11-09 To facilitate the development of a dedicated multi-purpose Arts Centre at a suitable location within the town.	C1 C2			B2 B3 HH1 S1 W1 W2 W3 W4 W5 CH1 CH2 L1		

8.11 Chapter 12: Built Heritage

	Likely to <u>Improve</u> status of SEOs	Probable <u>Conflict</u> with status of SEOs- unlikely to be mitigated	Potential <u>Conflict</u> with status of SEOs- likely to be mitigated	<u>Uncertain</u> interaction with status of SEOs	<u>Neutral</u> Interaction with status of SEOs	<u>No Likely</u> interaction with status of SEOs
Aim						
To conserve, protect and enhance the built heritage of Tullamore where possible. To strike a reasonable balance between conservation and development objectives in the interests of the proper planning and sustainable development and continue to protect, conserve and enhance buildings, areas, structures, sites and features of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest.	CH1 CH2					B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 C1 C2 L1
Architectural Heritage Policies						
TTEP 12-01 It is the Councils' policy to ensure that the alteration or extensions to Protected Structures will only be permitted if the proposals are in keeping with the character of the building and safeguard the special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest of the building or structure.	CH1 CH2		S1			B1 B2 B3 HH1 W1 W2 W3 W4 W5 C1 C2 L1
TTEP 12-02 It is the Councils' policy to encourage the rehabilitation, renovation and re-use of existing old structures, where appropriate, over the demolition of same and new-build on-site. Such rehabilitation, renovation and re-use works to existing vernacular structures must positively contribute to the streetscape of the area.	CH2		S1			B1 B2 B3 HH1 W1 W2 W3 W4 W5 C1 C2 L1
TTEP 12-03 It is the Councils' policy, where appropriate to exercise the powers conferred by sections 59-80 of the Planning and Development Acts 2000 to 2009 to ensure the conservation of Protected Structures.	CH2		S1			B1 B2 B3 HH1 W1 W2 W3 W4 W5 C1 C2 L1
TTEP 12-04 It is the Councils' policy to protect and enhance streetscapes, vistas and squares which make up Tullamore's present urban form, having regard to the recommendations of the Tullamore Public Realm Strategy.	CH2		S1			B1 B2 B3 HH1 W1 W2 W3 W4 W5 C1 C2 L1
TTEP 12-05 It is the Councils' policy to encourage contemporary development within Tullamore where the applicant can successfully demonstrate that any proposal will not negatively detract from the character of the existing built environment.			CH2			B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 C1 C2 CH1 L1

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TTEP 12-06 It is the Councils' policy to encourage mixed-use and/or higher density development within Tullamore where the applicant can successfully demonstrate that any proposal will not negatively detract from the character of the existing built environment.	C1 C2		CH2			B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 CH1 L1
TTEP 12-07 It is the Councils' policy to preserve and protect Tullamore's built environment and heritage in terms of streetscapes, structures and features of architectural heritage interest using the legislative provisions of the Planning and Development Acts 2000 to 2009. The design and layout of new housing and other development will be encouraged to enhance the setting of existing structures of architectural heritage merit.	CH2		S1			B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 C1 C2 CH1 L1
TTEP 12-08 It is the Councils' policy, where appropriate and necessary, to request applicants provide an appropriate level of investigation and recording (including survey drawings and photographic records) where development proposals may affect the character or setting of a structure of architectural heritage merit.	CH2					B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 C1 C2 CH1 L1
TTEP 12-09 It is the Councils' policy to openly facilitate, on an on-going basis, appropriate guidance to owners and occupiers of Protected Structures in relation to works that are exempted from planning permission through Section 57 Declarations of the Planning and Development Acts 2000 to 2009.	CH2					B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 C1 C2 CH1 L1
Archaeological Heritage Policies						
TTEP 12-10 It is the Councils' policy to apply the following principles to the archaeological heritage: <ul style="list-style-type: none"> To facilitate appropriate guidance in relation to the protection of Tullamore town and environs archaeological heritage. To promote public awareness of the rich archaeological heritage in this area. To protect and enhance archaeological monuments and their settings and Tullamore's Zones of Archaeological Potential. 	CH1		S1			B1 B2 B3 HH1 W1 W2 W3 W4 W5 C1 C2 CH2 L1
TTEP 12-11 It is the Councils' policy to ensure that full consideration is given to the protection of archaeological heritage when undertaking, approving or authorising development in order to avoid unnecessary conflict between development and the protection of the archaeological heritage.	CH1		S1			B1 B2 B3 HH1 W1 W2 W3 W4 W5 C1 C2 CH2 L1
TTEP 12-12 It is the Councils' policy to regard the shaded area on map 12.1 and map 12.2, as Zones of Archaeological Potential and to ensure that planning applications are referred to the appropriate prescribed bodies (as set out in the Planning and Development Acts 2000 to 2009) and to have regard to the advice and recommendations of the prescribed bodies.	CH1		S1			B1 B2 B3 HH1 W1 W2 W3 W4 W5 C1 C2 CH2 L1
TTEP 12-13 It is the Councils' policy to ensure that when an unrecorded archaeological object or site is discovered, any works that threaten the object or site are immediately suspended and that the appropriate Government agency is informed.	CH1		S1			B1 B2 B3 HH1 W1 W2 W3 W4 W5 C1 C2 CH2 L1

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TTEP 12-14 It is the Councils' policy to protect historical burial grounds within Tullamore town and environs and encourage their maintenance in accordance with conservation principles.	CH1		S1			B1 B2 B3 HH1 W1 W2 W3 W4 W5 C1 C2 CH2 L1
Objectives						
TTEO 12-01 To protect all structures listed in the Tullamore Town Record of Protected Structures, that are of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest in Tullamore.	CH1 CH2		S1			B1 B2 B3 HH1 W1 W2 W3 W4 W5 C1 C2 L1
TTEO 12-02 To examine the feasibility of designating Architectural Conservation Areas in Tullamore over the plan period.	CH2		S1			B1 B2 B3 HH1 W1 W2 W3 W4 W5 C1 C2 CH1 L1
TTEO 12-03 To ensure that all new proposed shop fronts are designed to a high standard, either of contemporary or traditional design, having regard to the context of the development (also refer to Chapter 7).	CH2					B1 B2 B3 HH1 S1 W1 W2 W3 W4 W5 C1 C2 CH1 L1
TTEO 12-04 To encourage, on account of their contribution to the character of the various streetscapes in the town, the retention of existing carriage archways/access ways to the rear of existing properties.	CH2		S1			B1 B2 B3 HH1 W1 W2 W3 W4 W5 C1 C2 CH1 L1
TTEO 12-05 To encourage the retention and suitable redevelopment of structures of interest, which are part of the towns milling and distilling heritage.	CH1 CH2		S1			B1 B2 B3 HH1 W1 W2 W3 W4 W5 C1 C2 L1
TTEO 12-06 To preserve and protect the town's industrial heritage, especially the two mills at Water Lane.	CH1 CH2		S1			B1 B2 B3 HH1 W1 W2 W3 W4 W5 C1 C2 L1
TTEO 12-07 To secure the protection (i.e. preservation in situ or at a minimum protection by record) of all archaeological monuments included in the Record of Monuments and Places, for Tullamore town and environs, as established under Section 12 of the National Monuments (Amendment) Act 1994, and their setting.	CH1		S1			B1 B2 B3 HH1 W1 W2 W3 W4 W5 C1 C2 CH2 L1

TTEO 12-08 To protect and preserve archaeological sites and their settings discovered since the publication of the record of Monuments and Places and the publication of the Urban Archaeology Survey.	CH1		S1			B1 B2 B3 HH1 W1 W2 W3 W4 W5 C1 C2 CH2 L1
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8.12 Chapter 13: Natural Heritage

	Likely to <u>Improve</u> status of SEOs	Probable <u>Conflict</u> with status of SEOs- unlikely to be mitigated	Potential <u>Conflict</u> with status of SEOs- likely to be mitigated	<u>Uncertain</u> interaction with status of SEOs	<u>Neutral</u> Interaction with status of SEOs	<u>No Likely</u> interaction with status of SEOs
Aim						
To conserve, protect and enhance Tullamore's natural heritage, where possible. The Councils will aim to strike a reasonable balance between conservation and development objectives in the interests of the proper planning and sustainable development.	B1 B2 B3 W1 L1					S1 HH1 W2 W3 W4 W5 C1 C2 CH1 CH2
Natural Heritage Policies						
TTEP 13-01 It is the Councils' policy to have regard to the views and guidance of the National Parks and Wildlife Service of the DoEHLG in respect of proposed development where there is a possibility that such development may have an impact on sites with proposed and/or nature conservation designations.	B1 B2 B3 W1					S1 HH1 W2 W3 W4 W5 C1 C2 CH1 CH2 L1
TTEP 13-02 It is the Councils' policy to prohibit any development that would be harmful to or that would result in a significant deterioration of habitats and/or disturbance of protected species within Tullamore and to support/co-operate with statutory authorities and others in support of measures taken to manage proposed or designated sites in order to achieve their conservation objectives.	B1 B2 B3 W1					S1 HH1 W2 W3 W4 W5 C1 C2 CH1 CH2 L1
TTEP 13-03 It is the Councils' policy to protect the integrity of Charleville Wood (proposed Natural Heritage Area and SAC) and to cooperate with relevant government bodies and the landowner in the management of Charleville Wood and Estate.	B1 B2 B3 W1 CH1 CH2 L1					HH1 S1 W2 W3 W4 W5 C1 C2 L1
TTEP 13-04 It is the Councils' policy to protect and enhance the built and natural heritage and the recreational potential of the Grand Canal Corridor and to encourage and promote access to and understanding of the Grand Canal.	B1 B2 B3 W1 CH1 CH2 L1					HH1 S1 W2 W3 W4 W5 C1 C2 L1
TTEP 13-05 It is the Councils' policy to protect, conserve and enhance Tullamore's biodiversity and natural heritage including wildlife (flora and fauna), habitats, landscapes and/or landscape features of importance to wildlife, especially along the Railway line, the Grand Canal and the Tullamore, Silver and Clodiagh Rivers.	B1 B2 B3 W1 L1					HH1 S1 W2 W3 W4 W5 C1 C2 CH2 L1
TTEP 13-06 It is the Councils' policy to continue to promote education, knowledge and pride in the natural heritage of Tullamore.	B1 B2 B3 W1					B1 B2 B3 S1 HH1 W1 W2 W3 W4 W5 C1 C2 CH1 CH2 L1

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TTEP 13-07 It is the Councils' policy to conserve, protect and enhance where possible wildlife habitats such as rivers (including riparian buffer zones/wildlife corridors), streams, wetlands, trees, woodlands and scrub, hedgerows and other boundary types such as stone walls and ditches providing a network of habitats and corridors essential for wildlife to flourish.	B1 B2 B3 W1 L1					S1 HH1 W2 W3 W4 W5 C1 C2 CH1 CH2
TTEP 13-08 It is the Councils' policy to protect riparian corridors by reserving land along their banks for ecological corridors and maintain them free from inappropriate development, where appropriate, and discourage culverting or realignment.	B1 B2 B3 W1 L1					S1 HH1 W2 W3 W4 W5 C1 C2 CH1 CH2
TTEP 13-09 It is the Councils' policy to promote the protection and preservation of existing hedgerows and to encourage planting of native hedgerow species.	B1 B2 B3 L1					S1 HH1 W1 W2 W3 W4 W5 C1 C2 CH1 CH2
TTEP 13-10 It is the Councils' policy to use native species in Tullamore, including on the Councils property, for landscaping works carried out by or on the part of Tullamore Town Council/Offaly County Council.	B3 L1					B1 B2 S1 HH1 W1 W2 W3 W4 W5 C1 C2 CH1 CH2
TTEP 13-11 It is the Councils' policy to promote the preservation and enhancement of native and semi-natural woodlands, groups of trees and individual trees.	B1 B2 B3 L1					S1 HH1 W1 W2 W3 W4 W5 C1 C2 CH1 CH2
TTEP 13-12 It is the Councils' policy to discourage the felling of mature trees to facilitate development and to encourage tree surgery rather than felling where necessary.	B1 B2 B3 L1					S1 HH1 W1 W2 W3 W4 W5 C1 C2 CH1 CH2
TTEP 13-13 It is the Councils' policy that developments, which require vehicular access from public roads that were formerly towpaths or from existing towpaths along the Grand Canal, are very strictly controlled. This is in addition to restrictions relevant to the Canal's designation as a Natural Heritage Area and consequently as an Area of Special Control (also refer to Offaly County Development Plan 2009-2015 – Chapter 14; Built Heritage). Within areas zoned as white lands in the Tullamore town and environs, it is policy to consider housing applications for established families* only along roads that were formerly towpaths along the Grand canal and that such developments will be strictly controlled. (* Families for the purpose of this policy (TTEP 13-13) are defined as husband, wife and their children, siblings of the husband and wife and their sons and daughters.)	B1 B2 B3 L1					S1 HH1 W1 W2 W3 W4 W5 C1 C2 CH1 CH2
Landscape Policies						
TTEP 13-14 It is the Councils' policy to ensure that a pro-active view of development is undertaken whilst maintaining respect for the environment and heritage, as per the general principles of sustainable development. Further it is policy to conserve, protect and enhance the landscape of Tullamore at a number of levels: <ul style="list-style-type: none"> The value of the landscape itself, the form and historic character of urban Tullamore and the associated open countryside on the urban fringe. The value of the landscape as a resource for economic growth in accordance with its physical and visual attributes. The value of the landscape and its role with habitats and species whose diversity enriches the environment. 	B1 B2 B3 W1 CH1 CH2 L1					S1 HH1 W2 W3 W4 W5 C1 C2

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TTEP 13-15 It is the Councils' policy to control development as per the manner in which the County landscape classification refers to Tullamore (refer to map 13.6).	B1 B2 B3 W1 CH1 CH2 L1					S1 HH1 W2 W3 W4 W5 C1 C2
TTEP 13-16 It is the Councils' policy to encourage state and private afforestation, both native broadleaf and coniferous species, in appropriate locations in Tullamore environs, in co-operation with Coillte and the Forest Service and in line with national policy.	B3 L1					B1 B2 S1 HH1 W1 W2 W3 W4 W5 C1 C2 CH1 CH2
TTEP 13-17 It is the Councils' policy to ensure those extractions (quarries/sand and gravel pits) which would result in a reduction of the visual amenity of areas of high amenity (refer to map 13.7) or damage to areas of scientific importance or of geological, botanical, zoological and other natural significance shall not be permitted. It is Councils policy that all such workings should be subjected to landscaping requirements and that worked out quarries should be rehabilitated to a use agreed with the Councils which could include recreational, amenity and end-of-life uses. The use of these rehabilitated sites shall be limited to wastes such as soil, stone and subsoils and sites shall be authorised under the appropriate waste regulations.	L1					B1 B2 B3 S1 HH1 W1 W2 W3 W4 W5 C1 C2 CH1 CH2
Open Space and Amenity Policies						
TTEP 13-18 It is the Councils' policy to protect and preserve "Areas of High Amenity" in Tullamore, from development which would be visually obtrusive or which would detract from the intrinsic character and environmental quality of the landscape.	L1					B1 B2 B3 S1 HH1 W1 W2 W3 W4 W5 C1 C2 CH1 CH2
TTEP 13-19 It is the Councils' policy to develop land for open space and amenity provision to ensure that residents and visitors gain the highest level of benefit possible from the environment of Tullamore.	C1 C2 L1					B1 B2 B3 S1 HH1 W1 W2 W3 W4 W5 CH1 CH2
TTEP 13-20 It is the Councils' policy to ensure a balance of public open space and amenity provision throughout the town.	C1 C2 L1					B1 B2 B3 S1 HH1 W1 W2 W3 W4 W5 CH1 CH2
TTEP 13-21 It is the Councils' policy to link open spaces and amenity developments so as to secure integration of provision as far as possible.	C1 C2 L1					B1 B2 B3 S1 HH1 W1 W2 W3 W4 W5 CH1 CH2
TTEP 13-22 It is the Councils' policy to ensure that the provision of open space in new housing developments makes a significant contribution to the recreational needs of adjoining residents.	C1 C2 L1					B1 B2 B3 S1 HH1 W1 W2 W3 W4 W5 CH1 CH2

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TTEP 13-23 It is the Councils' policy to examine the potential of, and promote the use of the Grand Canal as a local amenity feature and a significant tourist attraction for the town.	C1 C2 L1					B1 B2 B3 S1 HH1 W1 W2 W3 W4 W5 CH1 CH2
Natural Heritage Objectives						
TTEO 13-01 To conserve and protect European and National sites and to ensure that any development proposal in the vicinity of, or affecting a European or National designated site, provides sufficient information to show how its proposals will impact on the habitat of the site, and appropriate amelioration, and the Councils will consult with the Department of Environment, Heritage and Local Government in this regard.				B1 B2 B3 S1 HH1 W1 W2 W3 W4 W5 C1 C2 CH1 CH2 L1		
TTEO 13-02 To protect, conserve and enhance Tullamore's biodiversity and natural heritage. The principle of enhancement will be taken into account in the Development Management Process. It is a particular objective to protect plants, animals species and habitats, which have been identified by the Habitats Directive, Birds Directive, Wildlife Act and the Flora Protection Order.	B1 B2 B3 W1					S1 HH1 W2 W3 W4 W5 C1 C2 CH1 CH2 L1
TTEO 13-03 To carry out ecological studies in order to have improved baseline data and decision-making capacity.	B3 W1					B1 B2 S1 HH1 W2 W3 W4 W5 C1 C2 CH1 CH2 L1
TTEO 13-04 To protect the natural environment of the Grand Canal, Tullamore, Silver and Clodiagh Rivers and railway line and their corridors through the town.	B1 B2 B3 W1					S1 HH1 W2 W3 W4 W5 C1 C2 CH1 CH2 L1
TTEO 13-05 To seek the preservation of important features of geological interest within Tullamore.	B1 B2 B3					S1 HH1 W1 W2 W3 W4 W5 C1 C2 CH1 CH2 L1
Open Space and Amenity Objectives						
TTEO 13-06 To prepare an Open Space Strategy for the town of Tullamore as part of the Tullamore Public Realm Strategy.	C1 C2 L1					B1 B2 B3 S1 HH1 W1 W2 W3 W4 W5 CH1 CH2
TTEO 13-07 To further develop and extend a network of open spaces for pedestrian/cyclist movement within the town and environs.	C1 C2 L1					B1 B2 B3 S1 HH1 W1 W2 W3 W4 W5 CH1 CH2

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TTEO 13-08 To integrate plans for a network of cycle routes with plans for a network of amenity routes including parks, paths and walks (as part of the "Cycle Network and Parking Study").	C1 C2 L1					B1 B2 B3 S1 HH1 W1 W2 W3 W4 W5 CH1 CH2
TTEO 13-09 To provide walks along Tullamore River.	C1 C2					B1 B2 B3 S1 HH1 W1 W2 W3 W4 W5 CH1 CH2 L1
TTEO 13-10 To develop walks along both sides of the Grand Canal including spur leg to canal basin.	C1 C2					B1 B2 B3 S1 HH1 W1 W2 W3 W4 W5 CH1 CH2 L1
TTEO 13-11 To cooperate with the owner of Charleville Estate in order to continue to protect the amenity value of Charleville Estate and to examine any plans relating to the further enhancement/development of this amenity.	B1 B2 B3 W1 CH1 CH2 L1					S1 HH1 W2 W3 W4 W5 C1 C2
TTEO 13-12 To provide an amenity area based on the aquatic environment of the Canal centred on the canal basin area, in conjunction with the Office of Public Works.			B1 B2 B3 W1	L1		S1 HH1 W2 W3 W4 W5 C1 C2 CH1 CH2
TTEO 13-13 To facilitate the provision of a major boating centre in Tullamore in conjunction with the Office of Public Works.			B1 B2 B3 W1	L1		S1 HH1 W2 W3 W4 W5 C1 C2 CH1 CH2
TTEO 13-14 To continue a landscaping/tree planting programme for Tullamore giving specific attention to public approach roads, the town's streetscapes/public squares.	L1 B3					B1 B2 S1 HH1 W1 W2 W3 W4 W5 C1 C2 CH1 CH2
TTEO 13-15 To facilitate the improvement of public open space in various housing estates in conjunction with local residents.	C1 C2 L1					B1 B2 B3 S1 HH1 W1 W2 W3 W4 W5 CH1 CH2
TTEO 13-16 To protect trees or stands of trees which are of significant amenity value to the area. During the life of this plan, the Councils will investigate the feasibility of protecting such trees and/or stands of trees by Tree Preservation Orders.	B1 B2 L1 B3					S1 HH1 W1 W2 W3 W4 W5 C1 C2 CH1 CH2 L1

<p>TTEO 13-17 To promote the protection and development of nature walks at:</p> <ul style="list-style-type: none"> • Eiscir Riada • Ballard to Clonminch • Links to and along the Grand Canal Way • Charleville Demesne/ Estate • Mass Paths to Kilbride Church 	<p>B1 B2 B3 W1 L1 C1 C2</p>					<p>S1 HH1 W2 W3 W4 W5 CH1 CH2</p>
<p>TTEO 13-18 To protect trees or stands of trees which are of significant amenity value to the area. During the life of this plan, the Councils will investigate the feasibility of protecting such trees and/or stands of trees by Tree Preservation Orders.</p>	<p>L1 B3</p>					<p>B1 B2 S1 HH1 W1 W2 W3 W4 W5 C1 C2 CH1 CH2</p>
<p>TTEO 13-19 It is an objective of the Councils to preserve scenic views and prospects throughout the town and environs area which will be assessed on a case-by-case basis, as part of the development management process.</p>	<p>L1</p>					<p>B1 B2 B3 S1 HH1 W1 W2 W3 W4 W5 C1 C2 CH1 CH2</p>

8.13 Chapter 15: Land Use Zoning and Zoning Matrix

	Likely to <u>Improve</u> status of SEOs	Probable <u>Conflict</u> with status of SEOs- unlikely to be mitigated	Potential <u>Conflict</u> with status of SEOs- likely to be mitigated	<u>Uncertain</u> interaction with status of SEOs	<u>Neutral</u> Interaction with status of SEOs	<u>No Likely</u> interaction with status of SEOs
Aim						
Provide guidance in identifying particular landuses at the most appropriate locations for possible new development.	CH1 CH2		B1 B2 B3 S1 W1 W2 C1 C2 W4 W5 CH1 CH2 W3	L1		
Policies						
TTEP 15-01 It is the Councils' policy, generally that a sequential approach is adopted in the development within the Tullamore town and environs plan area (i.e. development from the centre most point of a settlement outwards), where feasible.	B1 B2 B3 HH1 S1 W4 W5 C1 C2 CH1 CH2		CH1 CH2	L1		
TTEP15-02 It is the Councils' policy to facilitate the development of the Tullamore town and environs area and ensure that any development proposed is in the interests of proper planning and sustainable development. In particular, it is the Councils' policy in the case of town centre zoning, to prohibit a proliferation of any individual use which in the opinion of the Planning Authorities, does not contribute to the vitality and viability of town centres.	B1 B2 B3 HH1 S1 W1 W2 W3 C1 C2 W4 W5 CH1 CH2 L1					
TTEP15-03 It is the Councils' policy to encourage the natural growth of Tullamore town and environs area. In the case of the development of zoned greenfield sites, a mix of uses may be required as opposed to excessive homogenous developments. This will ensure the proper planning and sustainable development of these areas, providing necessary services and adding vitality and viability to their future use.	CH1 CH2		B1 B2 B3 S1 W1 W2 C1 C2 W4 W5 CH1 CH2 W3	L1		
Objectives						
TTEO 15-01 That sufficient zoned lands be provided at appropriate locations throughout Tullamore town and environs to accommodate the expected land use requirements within the lifetime of the Tullamore and Environs Development Plan i.e. 2010-2016.	CH1 CH2		B1 B2 B3 S1 W1 W2 C1 C2 W4 W5 CH1 CH2 W3	L1		
TTEO 15-02 To ensure that development progresses in accordance with the landuse zoning objectives set out within this chapter [Chapter 15].	CH1 CH2		B1 B2 B3 S1 W1 W2 C1 C2 W4 W5 CH1 CH2 W3	L1		

Section 9 Mitigation Measures

9.1 Introduction

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

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

The mitigation measures may be incorporated into the briefing of design teams as well as the subsequent design, specification and development management of the landuses to be accommodated within Tullamore and Environs.

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

9.2 Mitigation through Consideration of Alternatives

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

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

Communication of the findings of this evaluation helped the Planning team make an informed choice as to which alternative was to be put before the Members of the Council.

Communication of this evaluation to the Members of the Council through this report helped the Members to make an informed choice with regard to the making of the Plan.

9.3 Measures Integrated into the Plan

The following sections list measures which have been integrated into the Development Plan which are envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the Plan.

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

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

9.3.1 Biodiversity and Flora and Fauna - Natura 2000 Sites

Policies: TTEP 13-01, TTEP 13-02 and TTEP 13-03

Objectives: TTEO 13-01 and TTEO 13-02

9.3.2 Biodiversity and Flora and Fauna - Ecological Connectivity

Policies: TTEP 13-04, TTEP 13-05, TTEP 13-07, TTEP 13-08, TTEP 13-09 and TTEP 13-11

Objective: TTEO 13-04

9.3.3 Human Health

Policies: TTEP 10- 26 and TTEP 10-27

Also see measures related to water quality, flooding, waste water treatment and drinking water supply and quality.

9.3.4 Sustainable Development of Brownfield Lands

Various provisions of Plan including provisions contained in the Overall Strategy and Policies TTEP 06-11 and TTEP 04-25 and Objective TTEO 04-09.

9.3.5 Water Quality

Policies: TTEP 10-21, TTEP 10-22, TTEP 10-23, TTEP 10-24 and TTEP 10-25

Objectives: TTEO 10-02, TTEO 10-06, TTEO 10-07, TTEO 10-08, TTEO 10-09, TTEO 10-10, TTEO 10-11 and TTEO 10-12

9.3.6 Flooding

Policies: TTEP 10-15, TTEP 10-16, TTEP 10-17 and TTEP 10-18

9.3.7 Waste Water Treatment

Policies: TTEP 10-01, TTEP 10-02, TTEP 10-03, TTEP 10-04, TTEP 10-09, TTEP 10-10 TTEP 10-11 and TTEP 10-12

Objectives: TTEO 10-02 and TTEO 10-04

9.3.8 Drinking Water Supply and Quality

Policies: TTEP 10-01, TTEP 10-02, TTEP 10-03, TTEP 10-04, TTEP 10-05 and TTEP 10-06

Objectives: TTEO 10-02, TTEO 10-03 and TTEO 10-07

9.3.9 Travel Related Greenhouse Gas Emissions

Policies: TTEP 08-01, TTEP 08-05, TTEP 08-10, TTEP 08-12, TTEP 08-13, TTEP 08-14, TTEP 08-21 and TTEP 08-24

Objectives: TTEO 08-14

9.3.10 Archaeological Heritage

Policies: TTEP 12-10, TTEP 12-11, TTEP 12-12, TTEP 12-13 and TTEP 12-14

Objectives: TTEO 12-01, TTEO 12-05, TTEO 12-06, TTEO 12-07 and TTEO 12-08

9.3.11 Architectural Heritage

Policies: TTEP 12-01, TTEP 12-02, TTEP 12-03, TTEP 12-04, TTEP 12-07, TTEP 12-08 and TTEP 12-09

Objectives: TTEO 12-01, TTEO 12-02, TTEO 12-03, TTEO 12-04, TTEO 12-05 and TTEO 12-06

9.3.12 Landscape

Policies: TTEP 13-14, TTEP 13-16 and TTEP 13-17

9.4 Note on Appropriate Assessment

The Plan was subject to Stage One Appropriate Assessment (AA). This Stage One screening exercise established that the Plan was formulated to ensure that uses, developments and effects arising from permissions based upon the Plan (either individually or in combination with other plans or projects) shall not give rise to significant effects on the integrity of any Natura 2000 sites⁴³. Therefore, in accordance with the Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC, it was concluded that the Plan does not require any further assessment to demonstrate compliance with the Directive.

⁴³ 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.

Section 10 Monitoring Measures

10.1 Introduction

The SEA Directive requires that the significant environmental effects of the implementation of plans and programmes are monitored. This environmental report puts forward proposals for monitoring the likely significant effects of implementing the Development Plan.

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

10.2 Indicators and Targets

Monitoring is based around the indicators which were chosen earlier in the process. These indicators allow quantitative measures of trends and progress over time relating to the Strategic Environmental Objectives used in the evaluation. Focus is given to indicators which are relevant to the likely significant environmental effects of implementing the Plan and existing monitoring arrangements will be used in order to monitor the selected indicators. Each indicator to be monitored is accompanied by the relevant target(s) which were identified with regard to the relevant legislation (see Section 4).

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

10.3 Sources

Measurements for indicators should come from existing monitoring sources and no new monitoring should be required to take place. Existing monitoring sources exist for each of the indicators and include those maintained by the Councils and the relevant authorities e.g. the Environmental Protection Agency, the National Parks and Wildlife Service and the Central Statistics Office.

The *Development Management Processes* in Tullamore Town and Offaly County Councils will provide passive monitoring of various indicators and targets on an application by application basis. Where significant adverse effects - including positive, negative, cumulative and indirect - are likely to occur upon, for example, entries to the RMP, entries to the RPS or ecological networks as a result of the undertaking of individual projects or multiple individual projects such instances should be identified and recorded and should feed into the monitoring evaluation.

10.4 Excluded Indicators and Targets

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

10.5 Reporting

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

Indicators and targets will be reviewed during the preparation of the preliminary monitoring evaluation report.

10.6 Responsibility

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

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

10.7 Thresholds

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

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

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

Environmental Component	Selected Indicator(s)	Selected Target(s)	Sources
Water	W1: Biotic Quality Rating (Q Value)	W1a: To maintain a biotic quality rating of Q4, in line with the requirement to achieve good water status under the Water Framework Directive, by 2015 W1b: To improve biotic quality ratings, where possible, to Q5	EPA
	W2: Groundwater Quality Standards and Threshold Values under Directive 2006/118/EC	W2: Compliance with Groundwater Quality Standards and Threshold Values under Directive 2006/118/EC	As noted under Section 10.4, monitoring data may not be available for this indicator when the monitoring evaluation is being prepared.
	W3: Number of developments granted permission on lands which pose - or are likely to pose in the future - a significant flood risk and/or which do not comply with the mitigation measures as outlined in the Tullamore Flood Risk and Assessment Management Study (OPW, 2008)	W3: Minimise developments granted permission on lands which pose - or are likely to pose in the future - a significant flood risk and/or which do not comply with the mitigation measures as outlined in the Tullamore Flood Risk and Assessment Management Study (OPW, 2008)	Development Management Process in the Councils
	W4: Number of new developments granted permission which can be adequately served with waste water treatment over the lifetime of the Development Plan	W4: New developments granted permission to be connected and adequately served by waste water treatment over the lifetime of the Development Plan	Development Management Process in Offaly County Council
	W5: 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	W5: 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	The Councils and EPA

Environmental Component	Selected Indicator(s)	Selected Target(s)	Sources
Air and Climatic Factors	<p>C1i: Percentage of population within the Plan area travelling to work or school by public transport or non-mechanical means</p> <p>C1ii: Average distance travelled to work or school by the population of the Plan area</p>	<p>C1i: An increase in the percentage of the population travelling to work or school by public transport or non-mechanical means</p> <p>C1ii: A decrease in the average distance travelled to work or school by the population of the Plan area</p>	<p>Central Statistics Office:</p> <p>As noted under Section 10.4, future monitoring data may not be available for these indicators until results from the next Census are made available.</p>
Cultural Heritage	<p>CH1: Percentage of 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) protected</p> <p>CH2i: Percentage of entries to the Record of Protected Structures (and/or their context within the surrounding landscape where relevant) protected</p> <p>CH2ii: Number of additions to the Record of Protected Structures and the number of additional ACAs</p>	<p>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)</p> <p>CH2i: Protect entries to the Record of Protected Structures (and/or their context within the surrounding landscape where relevant)</p> <p>CH2ii: Make Additions to the Record of Protected Structures and make additional ACAs, where appropriate</p>	<p>Development Management Process in Offaly County Council; Complaints from statutory consultees</p> <p>Development Management Process in the Councils; Complaints from statutory consultees</p> <p>The Councils</p>
Landscape	<p>L1: Number of complaints received from statutory consultees regarding avoidable impacts on the landscape - especially with regard to landscapes which are identified as being highly sensitive - resulting from development which is granted permission under the Development Plan</p>	<p>L1: No developments permitted which result in avoidable impacts on the landscape - especially with regard to landscapes which are identified as being highly sensitive - resulting from development which is granted permission under the Development Plan</p>	<p>Development Management Process in the Councils; Complaints from statutory consultees</p>

Table 10.1 Selected Indicators, Targets and Monitoring Sources

Section 11 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 - and indicator(s) which will be used for monitoring.

Likely Significant Effect, if unmitigated	Mitigation Measure Reference(s) from Plan	Primary Indicator(s) for Monitoring
Loss of biodiversity with regard to Natura 2000 Sites and habitats and species listed under Annexes I and II of the Directive	Policies: TTEP 13-01, TTEP 13-02 and TTEP 13-03 Objectives: TTEO 13-01 and TTEO 13-02	B1: Percentage of relevant habitats (i.e. qualifying interests) and designated ecological sites lost as a result of implementation of the Development Plan B2: Number of significant adverse impacts, including direct, cumulative and indirect impacts, to relevant habitats, geological features, species or their sustaining resources in designated ecological sites by development within or adjacent to these sites as a result of implementation of the Development Plan
Loss of biodiversity with regard to ecological connectivity and stepping stones	Policies: TTEP 13-04, TTEP 13-05, TTEP 13-07, TTEP 13-08, TTEP 13-09 and TTEP 13-11 Objective: TTEO 13-04	B3: Percentage loss of connectivity without remediation as a result of implementation of the Development Plan – as evidenced from a resurvey of CORINE mapping
Spatially concentrated deterioration in human health arising from exposure to incompatible land uses	Policies: TTEP 10- 26 and TTEP 10-27 Also see measures related to water quality, flooding, waste water treatment and drinking water supply and quality.	HH1: Occurrence (any) of a spatially concentrated deterioration in human health
Failure to maximise the sustainable reuse of brownfield lands	Various provisions of Plan including provisions contained in the Overall Strategy and Policies TTEP 06-11 and TTEP 04-25 and Objective TTEO 04-09	S1: Area of brownfield land developed over the plan period
Adverse impacts upon the quality of water bodies (rivers, lakes, ground waters)	Policies: TTEP 10-21, TTEP 10-22, TTEP 10-23, TTEP 10-24 and TTEP 10-25 Objectives: TTEO 10-02, TTEO 10-06, TTEO 10-07, TTEO 10-08, TTEO 10-09, TTEO 10-10, TTEO 10-11 and TTEO 10-12	W1: Biotic Quality Rating (Q Value) W2: Groundwater Quality Standards and Threshold Values under Directive 2006/118/EC
Flooding	Policies: TTEP 10-15, TTEP 10-16, TTEP 10-17 and TTEP 10-18	W3: Number of developments granted permission on lands which pose - or are likely to pose in the future - a significant flood risk and/or which do not comply with the mitigation measures as outlined in the Tullamore Flood Risk and Assessment Management Study (OPW, 2008)

Likely Significant Effect, if unmitigated	Mitigation Measure Reference(s) from Plan	Primary Indicator(s) for Monitoring
Inadequate waste water treatment for new populations	<p>Policies: TTEP 10-01, TTEP 10-02, TTEP 10-03, TTEP 10-04, TTEP 10-09, TTEP 10-10 TTEP 10-11 and TTEP 10-12</p> <p>Objectives: TTEO 10-02 and TTEO 10-04</p>	W4: Number of new developments granted permission which can be adequately served with waste water treatment over the lifetime of the Development Plan
Inadequate drinking water supply for new populations & Reduction in water quality which would present a potential danger to human health	<p>Policies: TTEP 10-01, TTEP 10-02, TTEP 10-03, TTEP 10-04, TTEP 10-05 and TTEP 10-06</p> <p>Objectives: TTEO 10-02, TTEO 10-03 and TTEO 10-07</p>	W5: 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
Increases in travel related greenhouse gas emissions and increases in car dependency	<p>Policies: TTEP 08-01, TTEP 08-05, TTEP 08-10, TTEP 08-12, TTEP 08-13, TTEP 08-14, TTEP 08-21 and TTEP 08-24</p> <p>Objectives: TTEO 08-14</p>	<p>C1i: Percentage of population within the Plan area travelling to work or school by public transport or non-mechanical means</p> <p>C1ii: Average distance travelled to work or school by the population of the Plan area</p>
Effects on archaeological heritage including entries to the Record of Monuments and Places	<p>Policies: TTEP 12-10, TTEP 12-11, TTEP 12-12, TTEP 12-13 and TTEP 12-14</p> <p>Objectives: TTEO 12-01, TTEO 12-05, TTEO 12-06 , TTEO 12-07 and TTEO 12-08</p>	CH1: Percentage of 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) protected
Effects on architectural heritage including entries to the Records of Protected Structures and Architectural Conservation Areas	<p>Policies: TTEP 12-01, TTEP 12-02, TTEP 12-03, TTEP 12-04, TTEP 12-07, TTEP 12-08 and TTEP 12-09</p> <p>Objectives: TTEO 12-01, TTEO 12-02, TTEO 12-03, TTEO 12-04, TTEO 12-05 and TTEO 12-06</p>	<p>CH2i: Percentage of entries to the Record of Protected Structures (and/or their context within the surrounding landscape where relevant) protected</p> <p>CH2ii: Number of additions to the Record of Protected Structures and the number of additional ACAs</p>
Visual impacts to sensitive landscapes and designated scenic views	<p>Policies: TTEP 13-14, TTEP 13-16 and TTEP 13-17</p>	L1: Number of complaints received from statutory consultees regarding avoidable impacts on the landscape - especially with regard to landscapes which are identified as being highly sensitive - resulting from development which is granted permission under the Development Plan

Table 11.1 SEA Summary Table: Likely Significant Effects, Mitigation Measures and Indicators for Monitoring

Appendix I Site Synopses

Candidate Special Area of Conservation⁴⁴

Site Name: Charleville Wood cSAC and pNHA⁴⁵
Site Code: 000571

Charleville Wood is a large Oak woodland surrounded by estate parkland and agricultural grassland located about 3 km south-west of Tullamore. The site, which is underlain by deep glacial deposits, includes a small lake with a wooded island, and a stream runs along the western perimeter. The woodland is considered to be one of very few ancient woodlands remaining in Ireland, with some parts undisturbed for at least 200 years. Some 10% of the woodland has been underplanted with conifers and other exotic trees, but the rest of the area is dominated by Pedunculate Oak (*Quercus robur*). Apart from Oak, there is much Ash (*Fraxinus excelsior*) and scattered Wych Elm (*Ulmus glabra*), while Birch (*Betula* spp.) is a feature of the boggy margins. The shrub layer is composed largely of Hazel (*Corylus avellana*), hawthorn (*Crataegus monogyna*) and Blackthorn (*Prunus spinosa*). The ground layer is varied, including damp flushed slopes with Ramsons (*Allium ursinum*) and drier, more open areas with a moss sward composed largely of *Rhytidiadelphus triquetris*. The fungal flora of the woodland is notable for the presence of several rare Myxomycete species, namely *Hemitrichia calyculata*, *Perichaena depressa*, *Amaurochaete atra*, *Collaria arcyrionema*, *Stemonitis nigrescens* and *Diderma deplanata*. A number of unusual insects have also been recorded in Charleville Wood, notably *Mycetobia obscura* (Diptera), a species known from only one other site in Ireland. The site is also notable for the presence of a large population of the rare snail species, *Vertigo moulinsiana*. Extensive swamps of Bulrush (*Typha latifolia*) and Bottle Sedge (*Carex rostrata*) have developed in the lake shallows. The lake is an important wildfowl habitat – it supports populations of Mute and Whooper Swan and a number of duck species, including Teal, Wigeon, Shoveler, Pochard and Tufted Duck. The wooded island at its centre is famed for its long history of non-disturbance. Hazel, Spindle (*Euonymus europaeus*) and Ivy (*Hedera helix*) reach remarkable sizes here. Charleville Wood is one of the most important ancient woodland sites in Ireland. The woodland has a varied age structure and is relatively intact with both areas of closed canopy and open areas with regenerating saplings present. The understorey and ground layers are also well represented. Old Oak woodland is a habitat listed on Annex I of the EU Habitats Directive, while the rare snail species, *Vertigo moulinsiana*, is listed on Annex II of this directive. The wetland areas, with their associated bird populations, the rare insect and Myxomycete species contribute further to the conservation significance of the site.

06.12.99

⁴⁴ National Parks and Wildlife (1999) *Site Synopsis for candidate Special Areas of Conservation* Dublin: Government of Ireland

⁴⁵ The Site Synopsis provided for Charleville Wood SAC - provided here - is the same as the Site Synopsis for the Charleville Wood pNHA

Proposed Natural Heritage Areas⁴⁶

Site Name: Grand Canal pNHA
Site Code: 002104

The Grand Canal is a man-made waterway linking the River Liffey at Dublin with the Shannon at Shannon Harbour and the Barrow at Athy. The Grand Canal Natural Heritage Area (NHA) comprises the canal channel and the banks on either side of it. The canal system is made up of a number of branches - the Main Line from Dublin to the Shannon, the Barrow Line from Lowtown to Athy, the Edenderry Branch, the Naas and Corbally Branch and the Milltown Feeder. The Kilbeggan Branch is dry at present, but it is hoped to restore it in the near future. Water is fed into the summit level of the canal at Lowtown from Pollardstown Fen, itself an NHA. A number of different habitats are found within the canal boundaries - hedgerow, tall herbs, calcareous grassland, reed fringe, open water, scrub and woodland. The hedgerow, although diverse, is dominated by Hawthorn (*Crataegus monogyna*). On the limestone soils of the midlands Spindle (*Euonymus europaeus*) and Guelder-rose (*Viburnum opulus*) are present. The vegetation of the towpath is usually dominated by grass species. Where the canal was built through a bog, soil (usually calcareous) was brought in to make the banks. The contrast between the calcicolous species of the towpath and the calcifuge species of the bog is very striking. The diversity of the water channel is particularly high in the eastern section of the Main Line - between the Summit level at Lowtown and Inchicore. Arrowhead (*Sagittaria sagittifolia*) and Watercress (*Nasturtium officinale*) are more common in this stretch than on the rest of the system. All sites for Hemlock Water-dropwort (*Oenanthe crocata*) on the Grand Canal system are within this stretch. The aquatic flora of the Corbally Extension of the Naas Branch of the canal is also very diverse, with a similar range of species to the eastern Main Line. Otter spraints are found along the towpath, particularly where the canal passes over a river or stream. The Common Newt breeds in the ponds on the bank at Gollierstown in Co. Dublin. The Rare and legally protected Opposite-leaved Pondweed (*Groenlandia densa*) (Flora Protection Order 1987) is present at a number of sites in the eastern section of the Main Line, between Lowtown and Ringsend Basin in Dublin. The ecological value of the canal lies more in the diversity of species it supports along its linear habitats than in the presence of rare species. It crosses through agricultural land and therefore provides a refuge for species threatened by modern farming methods.

13.02.95

Site Name: Ballyduff Wood pNHA
Site Code: 001777

This is a small area of beech woodland on glacial drift to the east of the Tullamore-Clara road 4 miles north of Tullamore. Younger beech trees, approximately 20 feet in height, are located around the south-western end together with some ash, hawthorn, blackthorn and hazel. Inside the marginal belt is the older woodland primarily completed of beech and hazel. Some hazel trees reach a height of 30 feet. The undergrowth is fairly dense with such species as *Urtica*

⁴⁶ National Parks and Wildlife (various) *Site Synopses for proposed Natural Heritage Areas* Dublin: Government of Ireland

dioica (Nettle) and *Rubus fruticosus* (Blackberry) in the more open parts, and *Hedera helix* (Ivy) and a moss carpet under the tree canopy. The woodland is situated on an esker ridge and patches of typical grassland communities can be seen alongside the road. The main grasses are *Festuca rubra* (Red Fescue), *Briza media* (Quaking Grass) and *Helictotrichon pubescens* (Hairy Oat Grass). Although unnatural in origin, this woodland is regaining a more natural composition through regeneration. The abundance of spindle (*Evonymus europaeus*) is of particular note. The site is further enhanced by areas of herb rich grassland.
No date available

Site Name: Ballyduff Esker pNHA
Site Code: 000885

Ballyduff esker runs from north of Rahan to south of Tyrellspass. As a feature of glacial deposition, the whole structure is of interest, but around Trumpet Hill a Natural Heritage Area has been proposed for designation because the area is also of considerable ecological interest. Here the eastern end comprises three high ridges with two steep sided and deep depressions. West of the road there are two main ridges with several short side branches which reflect the path of meltwater channels within the retreating ice at the end of the last ice age. The result is a well drained glacial till. The vegetation of the Natural Heritage Area is a complex of Hazel woodland, scrub, and grassland in various stages of agricultural 'improvement'. Although many eskers have been severely damaged if not destroyed by gravel extraction in the past, this part of Ballyduff esker has remained virtually intact. Mature scrub of Blackthorn (*Prunus spinosa*), Hawthorn (*Crateagus monogyna*), Hazel (*Corylus avellana*) and Willows (*Salix* spp.) is still frequent around Trumpet Hill itself. Elsewhere there is Gorse (*Ulex europaeus*) scrub, and Bracken (*Pteridium aquilinum*) which requires cyclical clearance. The open grassland areas which have not been intensively fertilised, especially at the east end and on the Trumpet Hill, support diverse and interesting grassland communities that reflect the calcareous nature of the underlying till. The railway cuttings provide an additional habitat of loose open gravel where the protected Red Hemp Nettle (*Galeopsis angustifolici*) is found. Heavy use of fertilisers has reduced the interest of other grassland areas, and mechanical damage due to overstocking has also occurred. However fertilisers will wash out of this well drained grassland, and with the reservoir of grassland species in the nearby unimproved areas, the potential for recovery is great. Even in its current condition this site is of great interest for its mosaic of habitats. Developed on a geomorphological feature typical of the midlands but becoming increasingly rare, this is one of the best known remaining eskers which still supports an open and relatively natural flora.
16.02.95