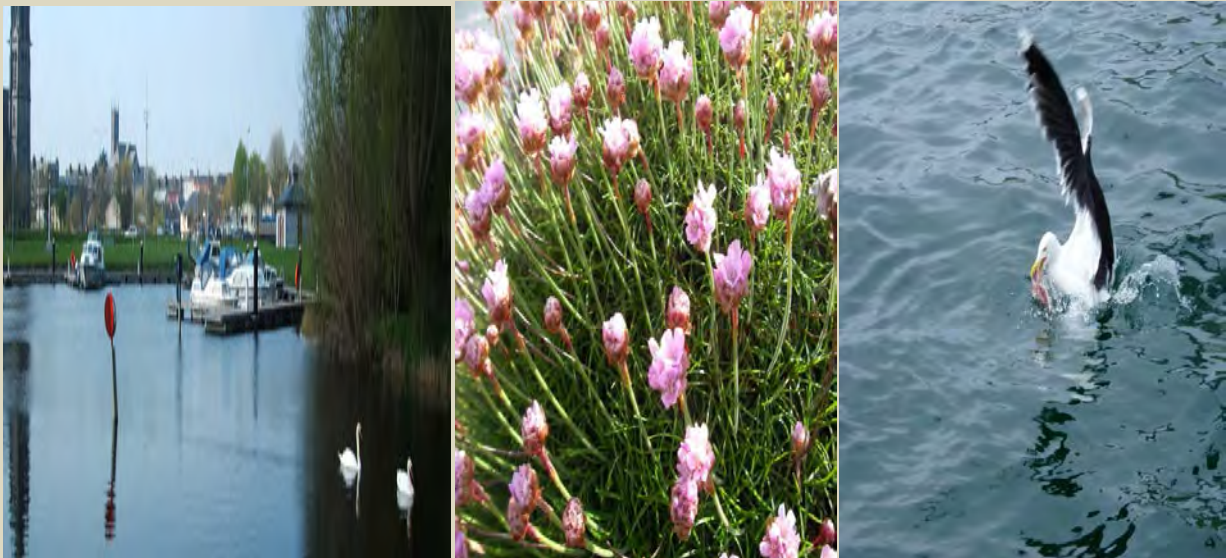


Draft Ballinasloe Local Area Plan 2015-2021 Strategic Environmental Assessment Environmental Report



Forward Planning
Galway County Council
April 2015



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Section 1 Introduction

1.1 Introduction and Terms of Reference

This document is the Environmental Report detailing the Strategic Environmental Assessment (SEA) undertaken for the Draft Ballinasloe Local Area Plan 2015-2021. The purpose of this Environmental Report is to provide a clear understanding of the likely environmental consequences of decisions regarding the future accommodation of development and growth within the plan area.

The SEA is being carried out in order to comply with the provisions of the SEA Regulations and in order to improve planning and environmental management in the plan area. This report should be read in conjunction with the Draft Ballinasloe Local Area Plan and the Appropriate Assessment report carried out on Ballinasloe.

1.2 Strategic Environmental Assessment

SEA is the formal, systematic evaluation of the likely significant environmental effects of implementing a plan/programme before a decision is made to adopt the plan/programme, the procedures for which are set out in the Planning and Development (SEA) Regulations 2004 (as amended by SI 201 in 2011). The objective of the SEA process is to provide for a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of specified plans and programmes with a view to promoting sustainable development. The overall purpose is to ensure that the environmental consequences of plans and programmes are assessed both during their preparation and prior to adoption.

The SEA process also gives interested parties an opportunity to comment on the environmental impacts of the proposed plan and to be kept informed during the decision-making process. The SEA is also an iterative process that shall inform and influence the preparation of the Draft Local Area Plan for Ballinasloe.

The structure of this Environmental Report which is the result of the Strategic Environmental Assessment is in accordance with Article 1 of the Directive which provides a broad basis for the content of the Environmental Report. This Report therefore identifies, describes and evaluates the likely significant effects on the environment of implementing the plans policies and objectives. In accordance with the Directive, this Environment Report provides the following:

- An outline of the content and main objectives of the Ballinasloe Local Area Plan and the relationship between these and other relevant plans and programmes;
- The environmental characteristics of the area affected by the plan;
- Any existing environmental problems which are relevant to the plan, including, in particular environmental importance, such as areas designated pursuant to Directives 79/409/EEC (Directive for the Conservation of Wild Birds) and 92/43/EEC (Conservation of Natural Habitats and of Wild Fauna and Flora);
- The environmental protection objectives, established at International, Community or Member State level, which are relevant to the plan and the way these objectives and any environmental considerations have been taken into account during its preparation;
- The likely significant effects on the environment, including issues such as biodiversity, flora, fauna; population and human health; soil and geology; water, air and climatic factors; material assets; cultural heritage including architectural and archaeological heritage and landscape;
- The measures envisaged to prevent, reduce and as fully as possible offset any adverse significant effects on the environment of implementing the plan;
- An outline of the alternatives dealt with, and a description of how the assessment was undertaken including any difficulties (such as technical deficiencies or lack of know how) encountered in compiling the required information;

- A description of the measures envisaged concerning monitoring in accordance with Article 10.

Note:

Throughout the SEA process all submission received during consultation were taken into consideration and incorporated into the SEA Environmental Report and the Non-Technical Report, where appropriate.

1.3 Appropriate Assessment

The Habitats Directive (Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora) formed a basis for the designation of Special Areas of Conservation (SACs). Similarly, Special Protection Areas (SPAs) are legislated for under the Birds Directive (Council Directive 79/409/EEC on the Conservation of Wild Birds). Collectively SACs and SPAs are referred to as Natura 2000 sites. Article 6(3) of the Habitats Directive requires that “Any plan or project not directly connected with or necessary to the conservation of a site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subjected to appropriate assessment of its implications for the site in view of the site’s conservation objectives”. Under Article 6(3) of the Habitats Directive an Appropriate Assessment must be undertaken for any plan or programme that is likely to have significant effects on the conservation objectives of a Natura 2000 site. This includes the preparation of the Draft Ballinasloe Local Area Plan 2015-2021. The purpose of an Appropriate Assessment is to identify the possible effects of implementing the Draft Ballinasloe Local Area Plan 2015-2021 on the conservation status of designated Natura 2000 sites within the Plan area. An Appropriate Assessment has been carried out in parallel with the Plan and SEA and a Natura Impact Report accompanies the Draft Ballinasloe Local Area Plan 2015-2021.

1.4 Strategic Flood Risk Assessment

A Strategic Flood Risk Assessment has been undertaken to inform the preparation of the Draft Ballinasloe Local Area Plan by providing a broad assessment of flood risk throughout the plan area. This process informs the land-use zoning and objectives of the Plan in accordance with the Planning System and Flood Risk Management Guidelines, issued under the Planning and Development Act 2000, as amended. The Strategic Flood Risk Assessment accompanies the Draft Ballinasloe Local Area Plan 2015-2021.

1.5 Legislative Context-EU Directive on SEA (Directive 2001/42/EC)

The EU Directive on Strategic Environmental Assessment or SEA (Directive 2001/42/EC) came into force in July 2001 and requires EU Member States to assess the likely significant environmental effects of plans and programmes prior to their adoption.

Article 1 of the SEA Directive states:

“The objective of this Directive is to provide for a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans and programmes with a view to promoting sustainable development, by ensuring that, in accordance with this directive, an environmental assessment is carried out of certain plans and programmes which are likely to have significant effects on the environment.”

The Directive came into effect in an Irish context in July 2004 and was subsequently transposed into Irish law through the Planning and Development (Strategic Environmental Assessment) Regulations 2004, S.I. No. 436 and the European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004, S.I. No. 435. A Strategic Environmental Assessment of the Ballinasloe Local Area Plan 2015-2021 is a mandatory requirement and is being carried out in accordance with the provisions of the SEA Directive and Regulations. While this Environmental Report and the Local Area Plan are two separate documents they should be read in conjunction with each other. Additional reference to the potential effects and protection of Natura 2000 sites can be found within the Habitats Directive Assessment for Ballinasloe Local Area Plan. This Habitats Directive Assessment has highlighted the potential effects that the Plan’s implementation may have on any Natura 2000 site (designated on ecological grounds and including Special Areas of Conservation and Special Protection Areas).This

Report is provided as a separate document titled 'Habitat Directive Assessment (Natura Impact Report) for the Draft Ballinasloe Local Area Plan 2015-2021.



Figure 1.1 Context of the Plan area in relation to Galway Gateway, Tuam Hub Town & 'Key Towns' in County Galway. (Source GCC).

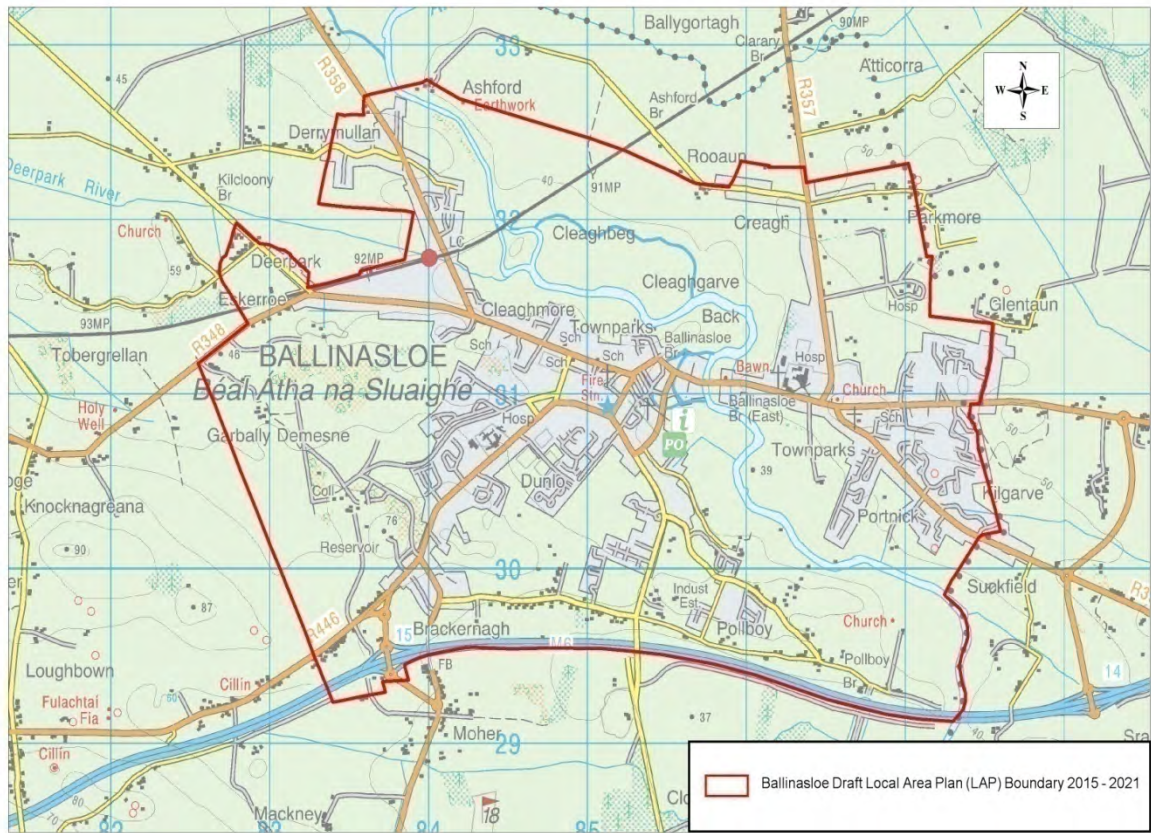
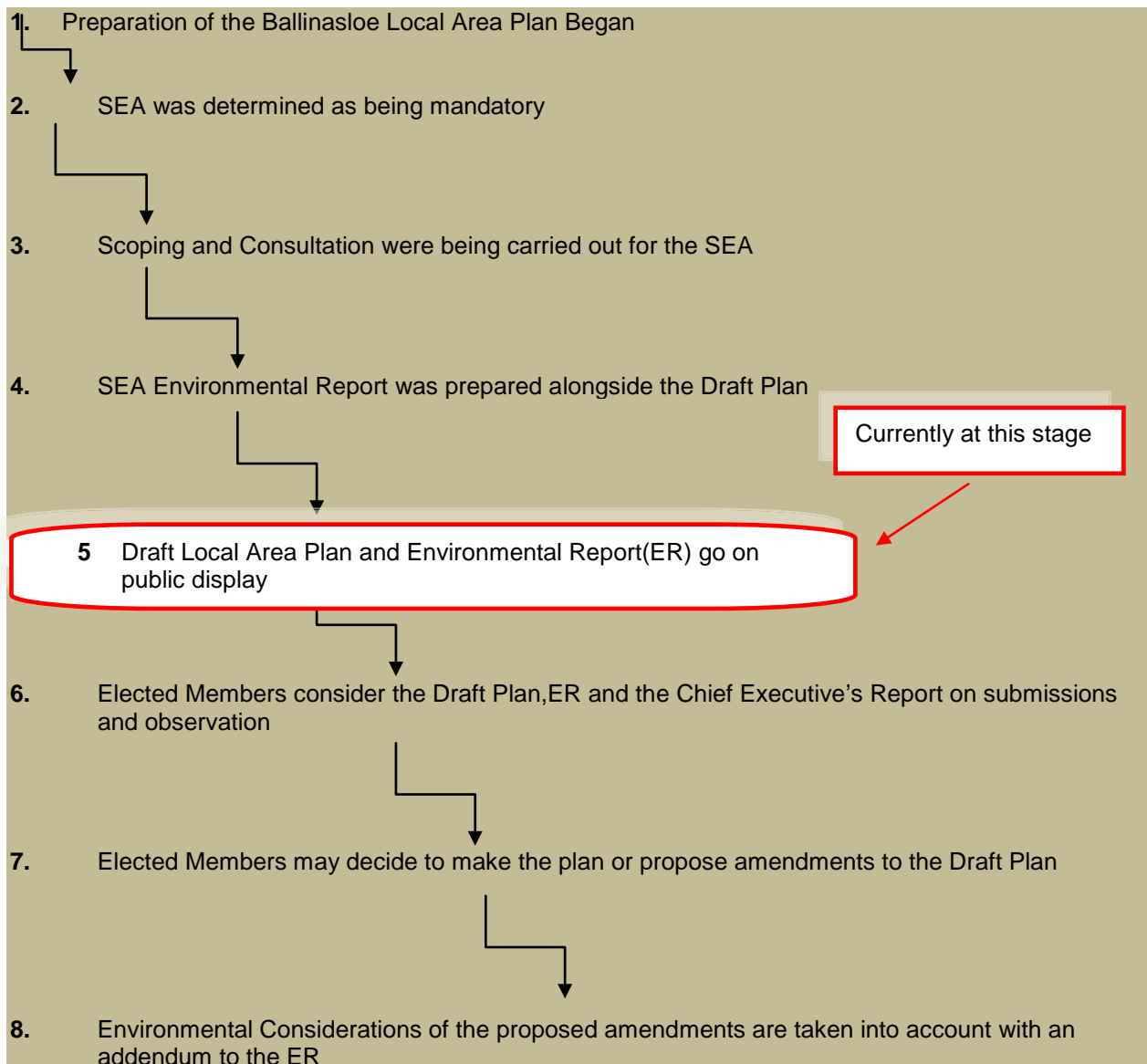


Figure 1.2 Ballinasloe Draft Local Area Plan 2015-2021. (Source GCC).

Section 2 SEA Methodology

2.1 Introduction

This section outlines the Strategic Environmental Assessment (SEA) process methodology. The methodology used reflects the requirements of the SEA Directive and other SEA guidance documentation such as *“Implementation of SEA Directive (2001/42/EC): Assessment of the Effects of Certain Plans and Programmes on the Environment – Guidelines for Regional Authorities and Planning Authorities”* published by the Department of the Environment, Heritage and Local Government and *“Development of Strategic Environmental Assessment (SEA) Methodologies for Plans and Programmes in Ireland – Synthesis Report”* published by the EPA in 2003. Moreover, the Directive was transposed into Irish law through the Planning and Development (Strategic Environmental Assessment) Regulations 2004, S.I. No. 436 and the European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004, S.I. No. 435. The shaded area below outlines the key stages in the assessment of the draft plan which is carried out in accordance with the Directive and the aforementioned Regulations. The process is currently at the fifth stage in the preparation of the Local Area Plan as indicated in the following steps below.



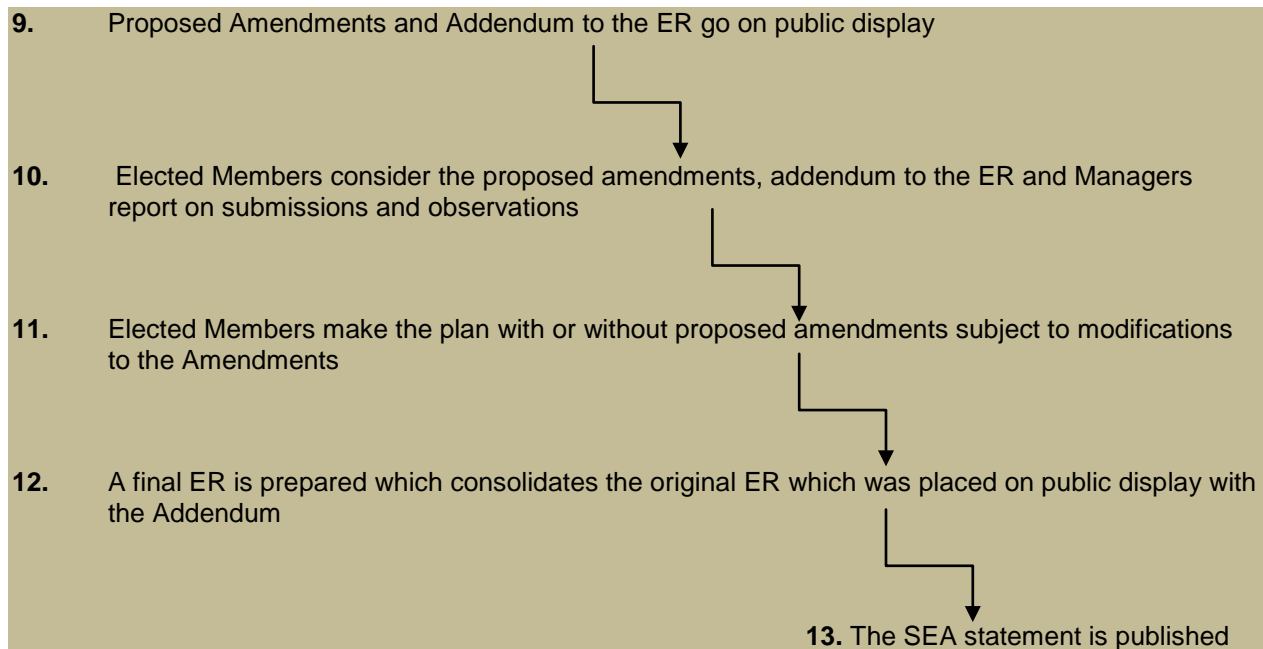


Table 2.1 Ballinasloe Local Area Plan and SEA Stages

2.2 Screening

The screening process is the first stage of the Strategic Environmental Assessment. Screening assesses the need to undertake a Strategic Environmental Assessment of a plan or programme. It was determined that the plan warranted a Strategic Environmental Assessment due to the extent of the resident population of the plan area.

2.3 Scoping

Scoping is the procedure whereby the range of Environmental issues and the level of detail to be included in the Environmental Report are decided upon in conjunction with the prescribed Environmental Authorities after preliminary environmental data collection. The scoping exercise for the Draft Ballinasloe Local Area Plan 2015-2021 was undertaken in January 2015. Scoping helps to focus the SEA on important issues such as those relating to existing and potential environmental issues and problems, therefore minimizing the waste of resources on unnecessary data collection. This scoping facilitated the selection of issues relevant to the environmental components which are specified under the SEA Directive and Regulations (as amended), namely biodiversity, flora and fauna; population, human health; soil and geology, water, air and climatic factors; material assets; cultural assets and landscape.

Scoping Submissions were received from the following statutory consultees:

- Environmental Protection Agency (EPA);
- The Department of Arts, Heritage and the Gaeltacht; and
- The Geological Survey of Ireland (GSI).

Table 2.2 Scoping Submissions received from Statutory Consultees

Submission	Comment
Environmental Protection Agency(EPA)	<ul style="list-style-type: none"> • Provision should be made in the Plan for the incorporation of the specific relevant objectives and measures for individual water bodies set out in the Shannon International River Basin Management Plan and associated Programme of Measures (POM). The Plan should not be in conflict with promoting the achievement of these specific objectives at water body level; • Ensure that there are adequate and appropriate critical water/wastewater infrastructure is in place to cater for existing and future development in the Plan area; • A strong commitment to collaborate with Irish Water in the provision, maintenance and enhancement of water services should be included in the plan; • A policy/objective should be included for the protection of groundwater resources and associated habitats and species; • While there is no dedicated surface water sewer network servicing Ballinasloe. It should be ensured that future development proposals incorporate appropriate Sustainable Urban Drainage Systems (SuDs) into development proposals as relevant and appropriate; • It is considered that there may be merits in considering a review/update of the Landscape Character Assessment 2003 (GCC); • Key biodiversity features such as ecological corridors/linkages, hedgerows and wetlands should be identified and measures put in place to ensure protection/replacement/enhancement; • A habitat map should be included in the plan; • A commitment to ensuring that the Plan will be consistent with the <i>Biodiversity Action Plan for County Galway 2008-2013</i>; • A commitment to implementing the environmental monitoring programme over the lifetime of the Plan in the context of ensuring any proposed mitigation measures are robust enough to mitigate for likely significant adverse environmental impacts identified; • In considering and assessing alternatives, the alternatives proposed should be reasonable and realistic and should be set

	<p>at the appropriate strategic level at which the Plan will be implemented operating within the national planning hierarchy;</p> <ul style="list-style-type: none"> • The alternatives should be assessed against the relevant environmental objectives established for the key environmental aspects of the environment likely to be significantly affected; • Clear justification should be provided for the selection of the preferred alternative/ combination of alternatives. Environmental sensitivities such as flood risk, biodiversity and critical infrastructure should be taken into account in the assessment of suitable alternatives.
Geological Survey of Ireland	<ul style="list-style-type: none"> • The Geological Heritage and Planning Programme would like to propose the addition of the County Geological Sites (CGS) in the Local Area Plan in order to protect them from inappropriate development and to ensure that they are given due consideration in any proposed plan that might adversely affect them; • There are 5 sites located near Ballinasloe. A Summary Table and a map are attached; • It is suggested that Policy NHB-5 and Objective NHB-4 that are contained in the County Development Plan should be re-iterated in the Local Area Plan.
Department of Arts, Heritage and the Gaeltacht	<ul style="list-style-type: none"> • It is considered that 'SEO Objectives' for biodiversity, flora and fauna (page 44) need to be expanded to cover: <ul style="list-style-type: none"> (1). Sites that are not Natura 2000 (or European) sites, e.g. NHAs and pNHAs; (2). Habitats and species that are covered by the Birds and Habitats Directives but are not listed on annexes (e.g. some regularly occurring migratory species covered by Birds Directive Article 4(2)); (3). Habitats and species that are not covered directly by the Birds and Habitats Directives and that may or may not be protected by wildlife legislation; • It is suggested that a natural heritage chapter should be included with objectives to conserve, protect and restore nature conservation sites, biodiversity and ecological networks in and around the plan area, including as listed below. In addition, there should be integration of ecological considerations and concerns into all other elements of the plan to ensure proper planning, sustainable development, and

	<p>compliance with European Directives and national legislation;</p> <ul style="list-style-type: none">• The Council is advised to consult the National Parks and Wildlife Service website (www.npws.ie) as a key source of data, information and publications on nature conservation sites and biodiversity issues of relevance to the plan and any associated environmental assessments;• Objectives to conserve and restore a number of key <i>ecological/natural heritage areas</i> should be included in the plan, taking into account the wider aims and obligations of the Habitats Directive (e.g. Article 6(2), 10, 12-16), and the Birds Directive (e.g. Article 4(4)) into account;• In relation to Appropriate Assessment this should be carried out with respect to the conservation objectives of relevant sites, bearing in mind the full scope of generic conservation objectives; conservation condition of a habitat or species is linked to conservation status as defined in Article 1(e) and 1(i) of the Habitats Directive. The Council is advised that the scientific analysis and reasoning underpinning the findings and decisions reached should be presented;• As the plan area includes and drains towards a European site, it is considered likely that an appropriate assessment and the preparation of an NIR will be required. This must include a determination under Article 6(3) of the Habitats Directive as to whether the proposed development would adversely affect the integrity of a European site;• The Biodiversity, Flora and Fauna section of the SEA should be undertaken by or in conjunction with a suitably qualified ecologist, and in conjunction with the NIR to ensure full integration of biodiversity issues and concerns, particularly in relation to nature conservation sites, rare and protected species, habitats that are rare or of high ecological value, and Article 10 of the Habitats Directive. The EPA's <i>Integrated Biodiversity Impact Assessment</i> best practice guidance is of relevance in this regard;• The Environmental Report is required to contain information on the environmental characteristics of the areas likely to be affected significantly by the plan;
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	<ul style="list-style-type: none"> • The Environmental Report is required to contain environmental protection objectives. For biodiversity, flora and fauna, these should integrate with the objectives and obligations of other directives such as the Habitats and Birds Directives, the Water Framework Directive and the Floods Directive, and with the Wildlife Acts, 1976-2000, National Biodiversity Plan and the aims and objectives of the county's own Heritage Plan and Biodiversity Plan; • Strategic Environmental Objectives should be included for all nature conservation sites (not just European sites), protected species and ecological corridors and stepping stones.

Table 2.2 Scoping Submissions received from Statutory Consultees

In the framing of the Environmental Report the matters raised in the above submissions have been fully incorporated in the preparation of the Draft Local Area Plan and associated Environmental Report. Accordingly, the objectives of the Draft Local Area Plan and the Strategic Environmental Objectives (SEOs) of the Environmental Report have been prepared in accordance with the above recommendations.

2.4 Environmental Report

The content of the Environmental Report is set out in accordance with Schedule 2B of the Planning and Development (Strategic Environmental Assessment) Regulations 2004, as amended 2011, as set out in Table 2.3.

Table 2.3 Structure of Environmental Report

Schedule 2B Information Required	Environmental Report
(a) An outline of the contents and main objectives of the plan and relationship with other plans	Section 1-Introduction and Background Section 2-SEA Methodology Section 4-Review of Relevant Policies, Plans and Programmes Section 5-Draft Ballinasloe Local Area Plan 2015-2021
(b).The relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan	Section 3-Environmental Baseline
(c). The environmental characteristics of areas likely to be significantly affected	Section 3-Environmental Baseline
(d). Any existing environmental problems which are relevant to the plan area, including in particular, those in relation to any areas of particular environmental importance such as areas designated pursuant to the Birds Directive, Habitats Directive	Section 3-Environmental Baseline
(e). The environmental protection objectives, established at international, European Union or national level, which are relevant to the plan and the way those objectives and any environmental considerations has been taken into account during	Section 3-Environmental Baseline Section 6-Environmental Assessment and Strategic Environmental Objectives Section 7-Development and Consideration of Alternatives

its preparation.	Section 8-Assessment of Effects of Implementing the Ballinasloe Local Area Plan
(f). The likely significant effects on the environment, including on issues such as biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural assets and landscape.	Section 7 & 8-Assessment of Significant Environmental Effects
(g). The inter-relationship between the above factors	Section 3-Environmental Baseline and in each section as it arises
(h).The measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan.	Section 9-Mitigation Measures
(i). An outline of the reasons for selecting the alternatives dealt with and a description of how the assessment was undertaken including any difficulties encountered in compiling the plan.	Section 10-Monitoring
(k). A non-technical summary of the information provided under the above headings	Separate Document from that of Environmental Report.

Table 2.3 Structure of Environmental Report

2.5 Environmental Baseline Data and Other Strategic Actions

The SEA process is led by the environmental baseline (i.e the current state of the environment- biodiversity, flora and fauna, soil, water, air & climatic factors, cultural heritage, landscape etc.) to facilitate the identification, evaluation and subsequent monitoring effects of the plan area. Data was collected to describe the environmental baseline and its likely evolution without the implementation of the local area plan.

The SEA Directive requires that information on the baseline environment be focused upon the relevant aspects of the environmental characteristics which are likely to be affected by the implementation of the plan. The SEA Directive aims to avoid duplication of the assessment whereby a strategic action forms part of a hierarchy. In order to describe the baseline, the current state of the environment data was collated from currently available, relevant environmental sources.

2.6 Alternatives

The Strategic Environmental Assessment Regulations 2004(S.I.No.436 of 2004) (as amended) also require the environmental report to include an “outline of the reasons for selecting the alternatives dealt with, and a description of how the assessment was undertaken including any difficulties encountered in compiling the required information (Schedule 2B)”.

The identification and assessment of alternatives is a key function of the SEA process and one which commenced at an early stage in the process of plan making. It is likely that the range of alternatives evolve as the process progresses which require evaluation in terms of the likely environmental consequences of alternative development strategies for the plan. Taking into account of the above and the geographical scope of the plan, alternatives were formulated and an alternative identified.

2.7 SEA Statement

Following the adoption of the plan, the competent authority is required to make available the adopted Local Area Plan and a statement setting out relevant “information on decision” as set out in Article 9 of the SEA Directive and by Article 13 of the Planning and Development Regulations 2001(as amended) and by Article 7 of the SEA Regulations in relation to Development Plans. The following is required to be included in the SEA Statement:

- 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 with the Environmental Report and the consultations that have been taken into account;
- Summarising the key issues raised in consultations and in the Environmental Report indicating what action if any was taken in response.

In addition to the above the reasons for choosing the plan in light of the alternatives, identifying the other alternatives considered, commenting on their potential effects and an explanation of why the plan was selected.

2.8 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) as amended. Section 2.4 is a reproduction of the checklist of the information to be contained in the Environmental Report (DEHLG,2004) and includes the relevant sections of this report, which deals with the above requirements.

2.9 Difficulties Encountered

The lack of centralised data source in relation to the environmental baseline data for the county posed a challenge to the SEA process.

2.10 SEA Difficulties and Data Gaps

- The lack of centralised data sources in relating to environmental baseline data for the county posed a challenge to the SEA process. The difficulty is one, which is encountered by Local Authorities across the country and is being overcome by investing in the collection of data from various sources and through the use of Geographical Information Systems;
- Although Corine Mapping and aerial photography was available no detailed habitat mapping was available for Ballinasloe town;
- There is no record or mapping of invasive species within plan area.

Section 3 Environmental Baseline

3.1 Introduction

This section identifies the environmental baseline for the Draft Ballinasloe Local Area Plan 2015-2021. The baseline information presents the environmental context within which the Draft Ballinasloe Local Area Plan will operate and the opportunities, constraints and targets placed on the plan in this regard. The environmental data is described in line with the legislative requirements of the SEA Directive and Regulations, as amended, under the following environmental parameter headings:

- Biodiversity, Flora and Fauna;
- Population & Human Health;
- Soil & Geology;
- Water;
- Air and Climatic Factors;
- Material Assets;
- Cultural Heritage; and
- Landscape.

The inter-relationship between the environmental parameters will also be considered within this section. The purpose of presenting the environmental baseline as part of the SEA process is outlined as follows:

- Support the process of identifying significant environmental effects;
- Support the identification of existing environmental problems;
- Provide a baseline against which future monitoring programmes can be set up and data compared.

The inter-relationship between the different environmental parameters is critical in understanding the assessment of potential significant effects on the environment as consequences of the proposals and objectives set out in the draft Local Area Plan. Under each environmental parameter below, the inter-relationship with all other environmental parameters is set out in a table format. Whilst all environmental parameters are described, certain parameters are identified as being of greater significance and may be subject to greater impacts associated with the implementation of the plan. In addition to the above an overview of the overall level of environmental sensitivity of the plan area is provided in a Cumulative Environment Assessment. This section also sets out the “do-nothing” scenario which is an indication of how current environmental conditions would change over time without the implementation of the Local Area Plan.

3.2 Geographical Location and Physical Characteristics of Ballinasloe

Ballinasloe is located on the River Suck upstream of its confluence with the Shannon. The town occupies a strategic location adjacent to the M6 National Primary route linking Dublin and Galway and is one of the principal ‘Gateways to the West’. Ballinasloe is situated approximately 30.5km (19miles) west of Athlone and 67.5km (42miles) east of Galway and has daily public transport services (both rail and bus) to Galway, Athlone and Dublin. The area to which the current *Ballinasloe Development Plan 2009-2015* relates is in excess of 4,000 acres. The current plan area consists of Ballinasloe town and the surrounding countryside.

A large proportion of the plan area could be described as rural. The county border with Roscommon lies just over 1km from the town centre with some developments in the eastern environs of the town lying within County Roscommon. The eastern boundary of the existing plan area is guided by the Roscommon county boundary. The River Suck forms part of the northern boundary and the Kellysgrove River makes up part of the southern boundary. The town is well serviced with educational facilities and spare capacity exists in both primary and second level schools. Ballinasloe hosts a range of industrial/enterprise ventures that are operated by both national and international companies. The primary industrial developments are located on the outskirts of the town, to the south, southeast, southwest and northwest. The main enterprise areas are located in the IDA Business and Technology Park and the Ballinasloe

Enterprise and Technology Centre which are situated to the northeast of the town centre along the R357. Ballinasloe has an important sub-regional role regarding retail provision, employment and community facilities in particular education and healthcare. Portiuncula hospital is regionally important and provides a vital source of employment in the health sector.

3.3 Relationship of the plan area with the Galway County Development Plan 2015-2021

Today Ballinasloe is identified as the '*County Town*', in the core strategy of the *Galway County Development Plan* and plays an important role in particular for east Galway and in the delivery of Local Government services. Ballinasloe is a key commercial centre and a source of employment for the residents of the town and surrounding hinterland. The town provides higher order important services such as Portiuncula Hospital, one of the largest general and maternity hospitals in the Country.

3.4 Biodiversity, Flora and Fauna

Ballinasloe 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 makes up large parts of the surrounding countryside within the plan area and consists of a variety of habitats including corridors which provide for the movement of wildlife. Green space within the plan area is comprised of agricultural lands, mainly pastures, with smaller areas of agricultural lands with natural vegetation and non-irrigated arable land. Areas of transitional woodland scrub and coniferous forests lie to the south of the town.

The River Suck, with tributaries such as the Bunowen River, the Deerpark River, the Cuilleen stream and the Kellysgrove stream, bisects the plan area from the northwest to the south east. The river acts as a corridor supporting areas of biodiversity within the town. The glacial soil of eskers provides a habitat for many flora and fauna.

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, railway lines and patches of woodland and scrub within which animals and plants continue to thrive.

3.4.1 Peatlands

Peatlands or bogs are unique habitats, rich in biodiversity. Bogs are a type of wetland that accumulate acidic peat and deposits of dead plant material, usually mosses. Bogs occur where the water at the ground surface is acidic, either from acidic ground water, or where water is derived entirely from precipitation.

The most significant bog within Ballinasloe, known as *Pollboy Bog*, is located to the south of the town, as indicated by the CORINE data mapped on Figure 3.1 and Figure 3.2

3.4.2 Woodlands

The most significant woodlands in the plan area are located west of Brackernagh and south of Cleaghmore. These areas lie within or adjacent to the Garbally Estate in the west of the town or are associated with the Esker Riada. Other smaller, though significant tree groups are located in the Creagh area of the town, on the grounds of St. Brigid's Hospital, in the flood plain and also in the vicinity of the IDA Business Park.

3.4.3 CORINE Land Cover Mapping⁶

The CORINE land cover mapping for Ballinasloe for the year 2012 (most updated version) classifies land cover under different headings and indicates that the main land use is *Pastures* followed by the land uses of *Discontinuous Urban Fabric* and *Peat bogs*. The main differences in the six years between 2006 and 2012 period is the loss of the *Transitional Woodland Scrub* to *Peat Bogs* to the south of the plan area and the enlargement of the *Pastures Land* from that of *Land Principally Occupied by Agriculture* and *Non-irrigated Arable Land* which occurred mainly to the west of the town. In addition, to the east of the town there has been a change from *Complex Cultivations Patterns* to *Pastures*.

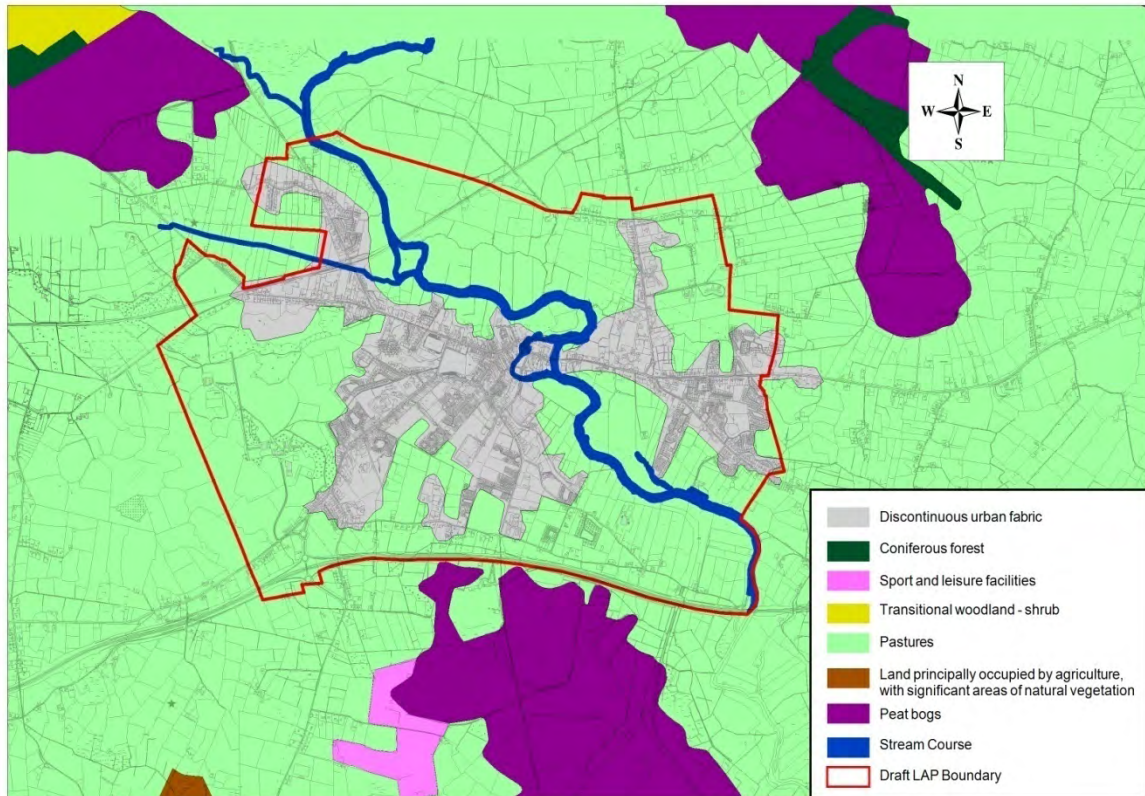


Figure 3.1 Corine Land Cover 2012.(Source GCC).

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

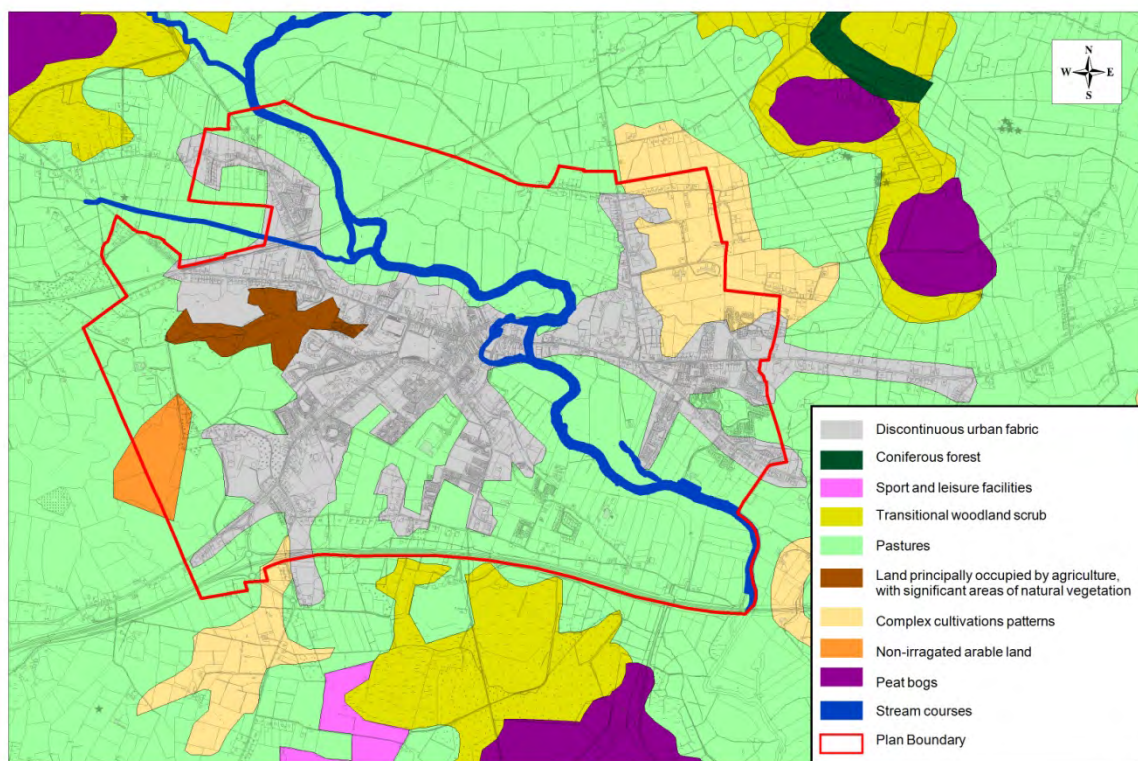


Figure 3.2 Corine Land Cover 2006. (Source GCC).

3.4.4 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. 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.

Within and surrounding Ballinasloe, the ecological networks are made up of components including the water bodies of the River Suck, the Bunowen River, the Deerpark River, the Cuilleen stream and Kellysgrove stream, together with their tributaries and banks, the various woodlands, parks, gardens and hedgerows within and surrounding the plan area and lands used for agriculture. These components provide habitats and facilitate linkages to the surrounding countryside for flora and fauna.

3.4.5 Invasive Alien Species

Although there are few records of Invasive Alien species in Ballinasloe, it is highly likely that species such as the Japanese Knotweed *Fallopia japonica* and Himalayan Balsam *Impatiens glandulifera* amongst others occur in the area. Aquatic invasive species such as the Zebra Mussel *Dreissena polymorpha* and Asian Clam *Corbicula fluminea* have the potential to be spread through water bodies in the area and have the ability to become highly invasive in a short period of time and at high densities, altering the food web and soil competing with native mussel species.

3.4.6 Designations & Natural Heritage Areas

The transposition of the EU Habitats Directive Assessment by the European Communities (Birds and Natural Habitats) Regulations 2011, provide the legal basis for the protection of habitats and species of European importance in Ireland. The legislative protection of habitats and species provided by the

Habitats Directive has been implemented in Ireland and throughout Europe through the establishment of a network of designated conservation areas known as the Natura 2000 network. The Natura 2000 network includes sites designated as Special Areas of Conservation (SACs), under the EU Habitats Directive and Special Protection Areas (SPAs) designated under the EU Birds Directive. Under the Habitats Regulations all designated sites are referred to as European Sites. It is also noted that, under the Habitats Regulations, the term European Site includes cSACs as well as SACs.

There are a number of ecologically designated sites within and surrounding the Ballinasloe plan area. It is noted that some of the ecological sensitivities that have been outlined in this section occur beyond the fringes of the plan area. They are included, however, to ensure that areas which could be impacted as a result of implementing the plan are identified and assessed.

3.4.6.1 Special Protection Areas

Special Protection Areas (SPAs) have been selected for protection under the 1979 European Council Directive on the Conservation of Wild Birds (79/409/EEC) - referred to as the Birds Directive - by the DEHLG due to their conservation value for birds of importance in the European Union.

SPA's are designated in areas that support 1% or more of the population of bird species listed on Annex I of the EU Birds Directive; 1% or more of the population of migratory species; and more than 20,000 waterfowl. There is one designated SPA in the plan area – The Suck River Callows (Site Code 004097) which traverses the plan area; this can be seen on Figure 3.3, and is summarised as follows:

- **Suck River Callows SPA⁷**
Site Code: 004097

The Suck River Callows is a long sinuous area of semi-natural lowland wet grassland, which floods extensively each winter along the River Suck between Castlecoote in the north and Shannonbridge in the south, passing through Ballinasloe. The River Suck forms the Roscommon - Galway county boundary and joins the River Shannon at Shannonbridge. The River Suck is the largest tributary of the River Shannon.

The Callows are designated as a Special Protection Area under the EU Birds Directive due to the presence of internationally and nationally important numbers of wintering waterfowl. The Greenland White-fronted Goose and Whooper Swan which are listed on Annex I of the EU Birds Directive occur regularly within this site.

3.4.6.2 Special Areas of Conservation

Special Areas of Conservation (SACs) have been selected for protection under the European Council Directive on the conservation of natural habitats and of wild fauna and flora (92/43/EEC) - referred to as the Habitats Directive - by the DEHLG due to their conservation value for habitats and species of importance in the European Union. SACs are designated in areas that support habitats listed on Annex 1 and/or species listed on Annex II of the Habitats Directive. There are no SACs within the plan area.

3.4.6.3 Natural Heritage Areas

Natural Heritage Areas (NHAs) are designated due to their national conservation value for ecological and/or geological/geo-morphological heritage. They cover nationally important semi-natural and natural habitats, landforms or geo-morphological features, wildlife plant and animal species or a diversity of these natural attributes. NHAs are designated under the Wildlife (Amendment) Act 2000, and are legally protected under the Wildlife Acts, 1976-2000.

There is one NHA – The Suck River Callows (Site Code: 000222) and one proposed NHA, Ballinasloe Esker (Site Code: 001779) in Ballinasloe. These are mapped on Figure 3.3 and are summarised as follows:

⁷ 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 III**

- **Suck River Callows NHA⁸**
Site Code: 000222

This site supports a good diversity of raised bog microhabitats, including hummocks and pools. The site is of major ornithological importance. The main habitat of the Callows is flood meadows of wet grassland and the associated aquatic and semi-aquatic habitats of drainage ditches.

- **Ballinasloe Esker pNHA⁹**
Site Code: 001779

The Ballinasloe Esker is about 6km long and stretches due west from Ballinasloe roughly along the line of the Galway - Dublin rail line. The main habitats are mixed wood and dry broadleaved, semi-natural woodland. Parts of the esker are grazed by cattle which are causing damage due to trampling in places. Also, the size of the esker is being reduced due to quarrying and improvement of grassland by fertilising and reseeded. Continued quarrying is a threat to this site as is the clearing of mature trees.

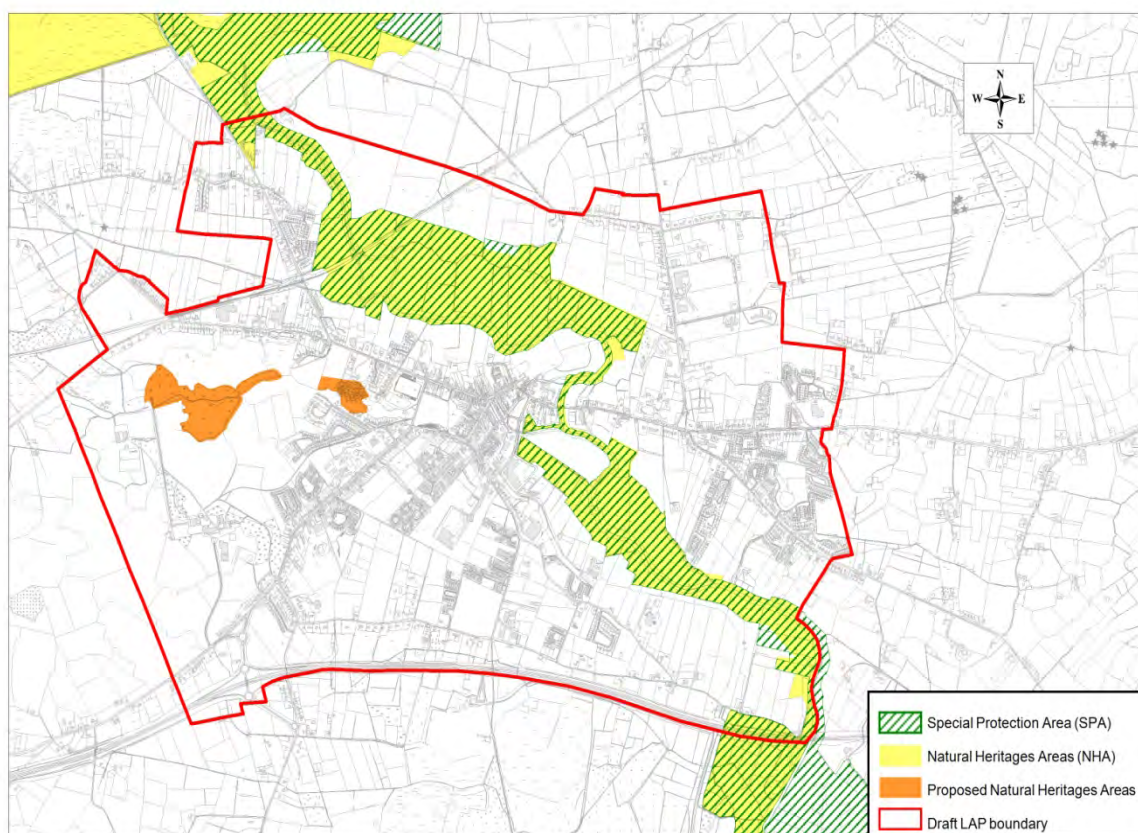


Figure 3.3 Designated Sites & National Heritage Areas within and surrounding the Plan Area. (Source GCC).

⁸ 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 III**

⁹ 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 III**

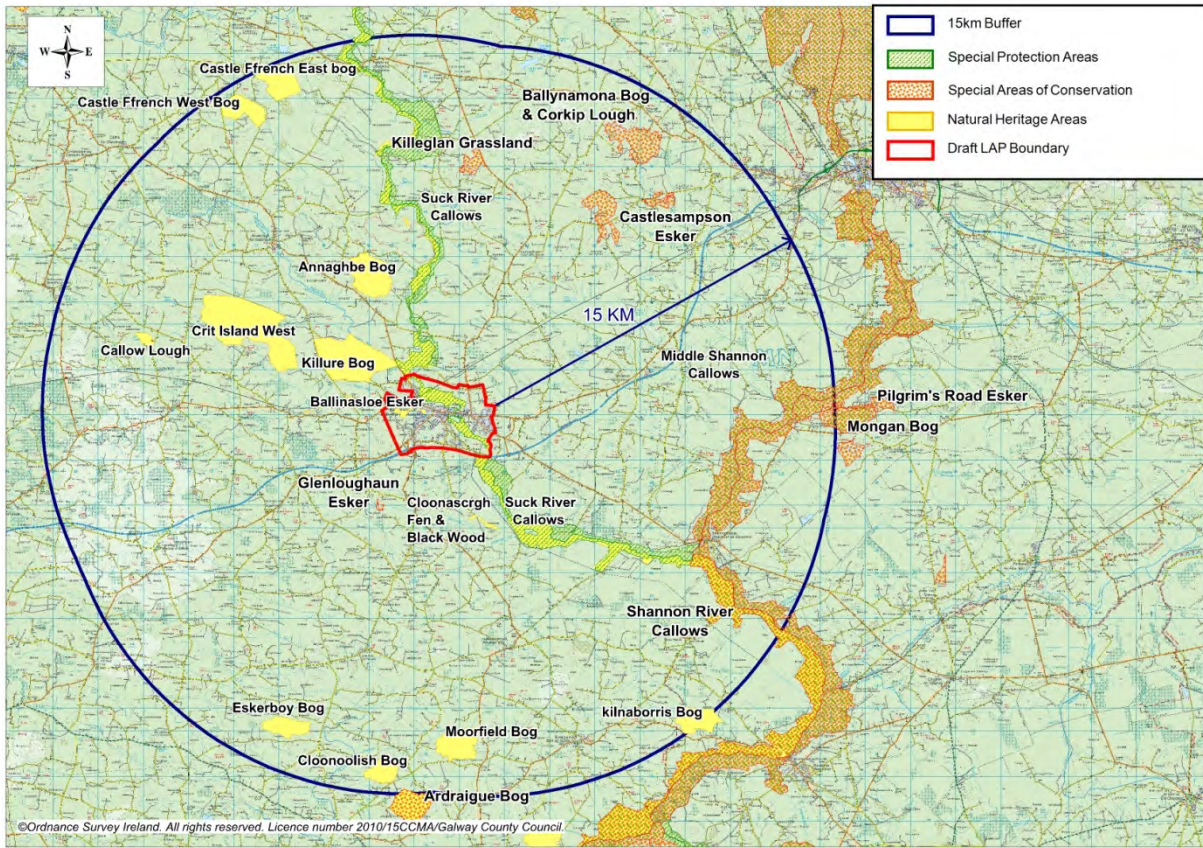


Figure 3.4 Designated Sites & Natural Heritage Areas within 15km of Plan Area. (Source GCC).

3.4.7 Register of Protected Areas

In response to the requirements of the Water Framework Directive a number of water bodies or parts of water bodies which must have extra controls on their quality by virtue of how their waters are used by people and by wildlife have been listed on Register of Protected Areas (See Figure 3.15). A number of water bodies in the plan area have been listed on the Register of Protected Areas for Water Dependant Species and Drinking Water (Groundwater).

3.4.8 Existing Environmental Problems

There are a number of issues relating to biodiversity, flora and fauna within the plan area.

- There are a number of ecological networks throughout the plan area. Increased development pressures as a result of the projected growth in population may result in the development of the plan area on greenfield lands and/or the removal of trees/hedgerows which may impact on these networks and the integrity of designated areas;
- Habitat loss and fragmentation can occur as a result of development;
- Land cover differences between the CORINE 2006 data and the CORINE data for the year 2012 indicate a cumulative loss of *Transitional Woodland Scrub to Peat Bogs, Land Principally Occupied by Agriculture and Non-irrigated Arable Land to Pastures*;
- Generally, development in Ballinasloe is not significantly impacting upon designated ecological sites. However, the site synopsis for these sites identify certain threats to the conservation value of these sites - quarrying activities are identified in relation to the Ballinasloe Esker Pnha, while habitat loss is identified over the wider area covered by the Suck River Callows NHA designation;
- 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 3.18, several water bodies within and surrounding the area are “at risk” with regard to meeting

- legislative water quality objectives under the Water Framework Directive;
- Disturbance of wildlife, and particularly birds, occur as a result of inappropriately sited development and increased recreational pressure;
- The spread of invasive alien species is particularly important threat to local biodiversity as they compete for space and food.

3.4.9 Evolution of Biodiversity, Flora and Fauna in the absence of a Local Area Plan

In the absence of a Local Area Plan, there would be no framework to guide where development should occur and planning applications would be assessed on a case by case basis with no overall vision for the plan area. Flora and fauna, habitats and ecological connectivity would be protected under a number of largely independent strategic actions relating to biodiversity and flora and fauna protection. The evolution of biodiversity and fauna would be dependent on the rate and extent of any such developments which would take place. There would be limited considerations of the inter-connections between such things as climate change and biodiversity and therefore no provisions made to contend with future climate change.

Developments along or adjacent to the banks or rivers could result in a reduction in ecological connectivity within and between a number of habitats. Pollution of water bodies as a result of any future development along river catchments would likely to adversely impact aquatic biodiversity and flora and fauna including salmonid species and other species protected under Annex II of the Habitats Directive.

In the absence of a Local Area Plan, any Greenfield development would adversely impact upon biodiversity and flora and fauna by replacing natural or semi-natural habitats with artificial surfaces.

3.4.10 Inter-relationship with Other Environmental Parameters

Bio-diversity has an inter-relationship with all environmental parameters presented in this section. There is a significant overlap between nature, human beings, soil, landscape and water.

	PHH	SG	W	AC	M	CH	L
Biodiversity, Flora & Fauna	✓	✓	✓	✓	✓	✓	✓

(B=Biodiversity, Flora & Fauna, PHH=Population, Human Health, SG=Soil & Geology, W=Water, AC=Air & Climatic Factors, M=Material Assets, CH=Cultural Heritage, L=Landscape).

3.5 Population and Human Health

3.5.1 Population context

The National Spatial Strategy sets out a national settlement structure which focuses on growing urban centres such as the identified gateways, the hubs, linked hubs and larger towns. It is envisaged that these areas would reach a sufficient size or 'critical mass' in order to enhance economic competitiveness within the region. The *Regional Planning Guidelines for the West Region 2010-2022* prescribe that an additional 12,640 persons will be living in the County (not including Galway City) by 2022. Ballinasloe is on Tier 3 of the County Settlement Strategy hierarchy and its role as a 'County Town' is to perform an important role as a commercial/industrial centre for the eastern area of the County. Ballinasloe also provides higher order important services such as Portiuncula Hospital which serves a regional population.

In terms of population trends, according to the most recent 2011 CSO figures, the total population of Ballinasloe (urban and environs) was recorded as 6,577 persons (6,449 urban and 128 environs), a total change in population of 419 persons or a 6.8% increase on the 2006 population level (see Table 3.1). Given the current economic climate it is considered that over the lifetime of the plan the population of Ballinasloe will stay well within the population growth target.

The Core Strategy as outlined within the *County Development Plan* indicates that Ballinasloe has been assigned a population growth target of 1,540 additional persons, corresponding to 477 additional housing

units, up to the year 2021. This population growth target would require housing land of 35.81 Ha with 50% over-zoning, in order to accommodate residential development over the plan period. The Local Area Plan will consider various development zoning and phasing options so as to comply with the Core Strategy as outlined within the *Galway County Development Plan* and to ensure that suitable lands are brought forward for development during the plan period.

Population Census 2002	Population Census 2006	Population Census 2011
6101	6158	6577

Table 3.1 Population Trend for Ballinasloe Urban and Environs for Census Periods 2002 – 2011

3.5.2 Age Profile

Figure 3.5 illustrates the age structure of the Ballinasloe population as recorded on Census Night 2011 and compares it to the 2006 census. Ballinasloe has a large percentage of its population in the 25-34 age brackets. In the majority of age brackets the population recorded in the 2011 census has increased from that of the 2006 census. This reflects the increase in population as outlined under Section 3.5.1.

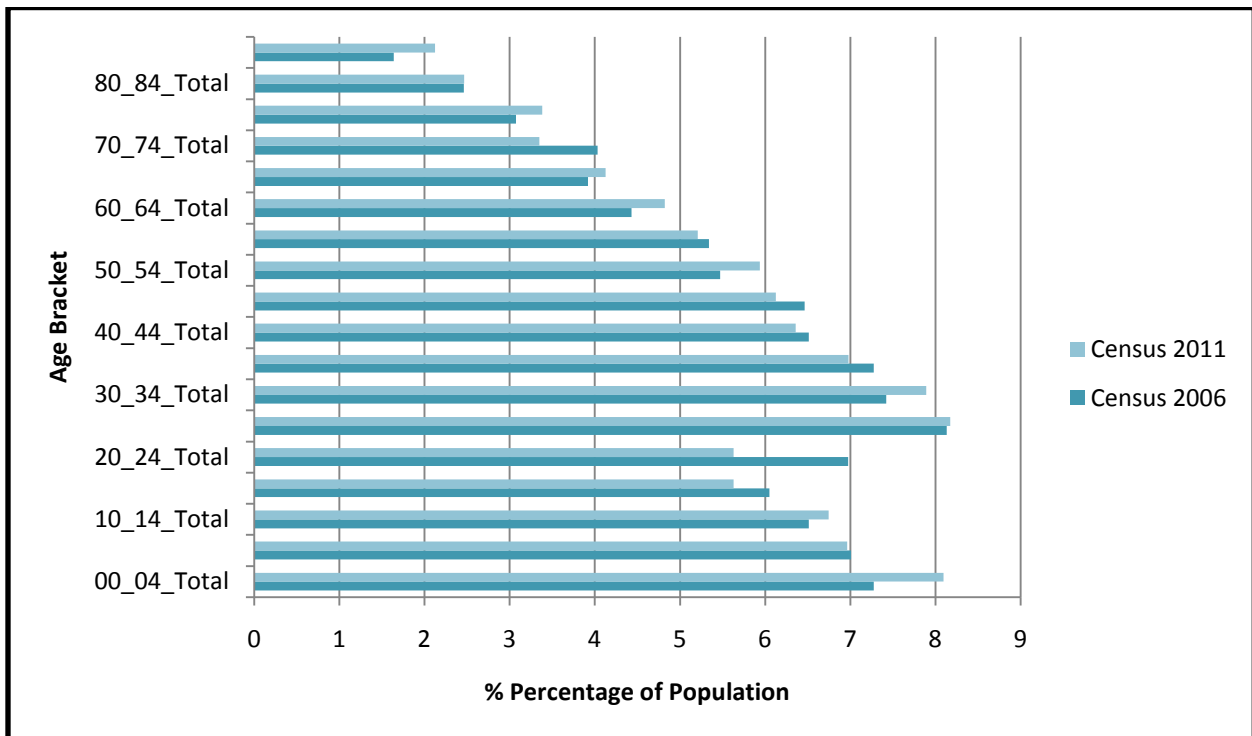


Figure 3.5 Ballinasloe Age Profile 2006-2011

3.5.3 Education Profile

Figure 3.6 illustrates the education profile of the plan area. Ballinasloe has a higher percentage of people who have completed upper secondary education than any other category of education. The percentage within this cohort that proceeds to vocational or technical education is higher than those attending higher certificate courses.

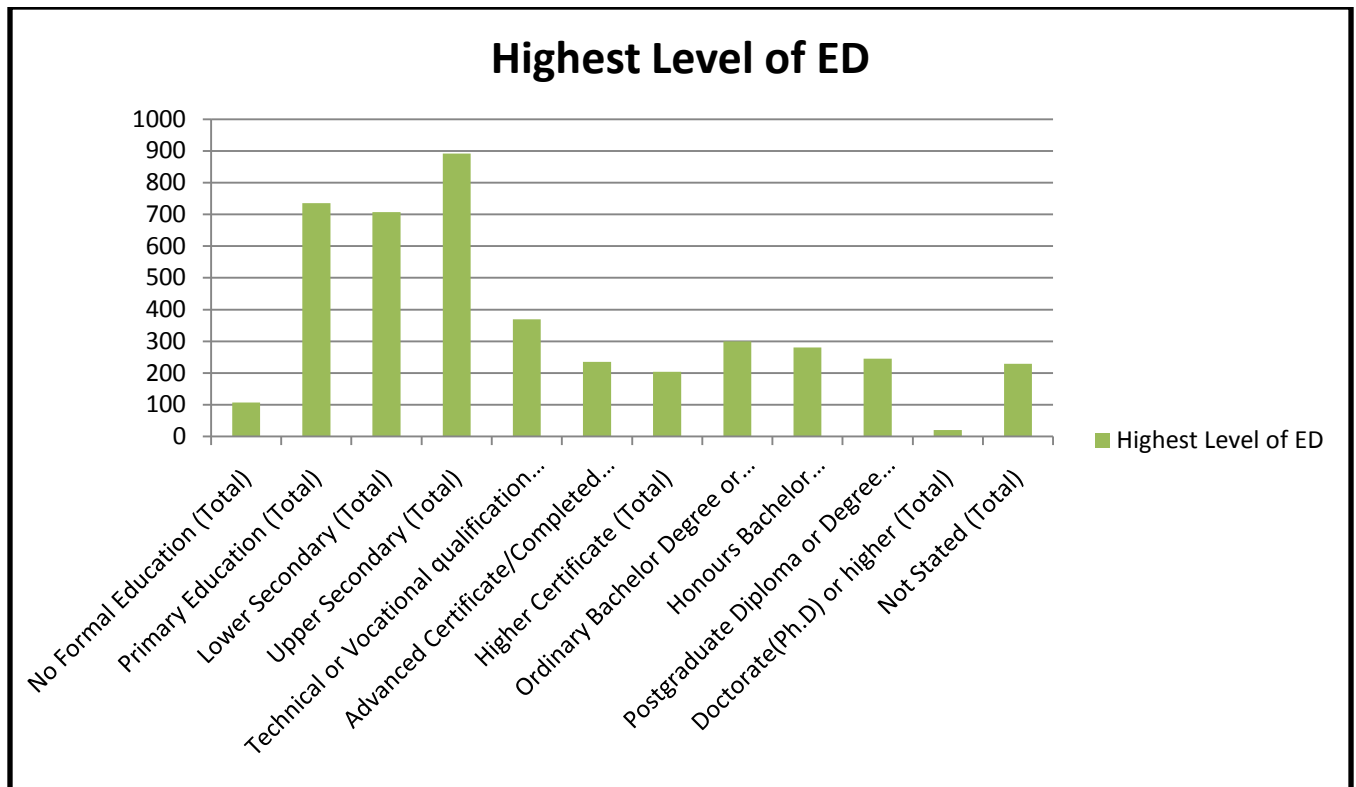


Figure 3.6 Education Profile

3.5.4 Travel Patterns

Table 3.2 shows that travelling by car to work, school or college is the main mode of transport for people in Ballinasloe (approximately 40% as car driver and 22% as car passenger). Public transport seems limited (7%) based on the number of people utilising this mode of transport. In addition to the private car as the main mode of transport a substantial number of people travel on foot (approximately 22%).

Population aged 5 years and over by means of travel to work, school or college	
On foot	597
Bicycle	68
Bus, minibus or coach	230
Train, DART or LUAS	16
Motorcycle or scooter	2
Car driver	1401
Car passenger	748
Van	121
Other	90
Not stated	115
Total	3388

Table 3.2 Population aged 5 years and over by means of travel to work, school or college

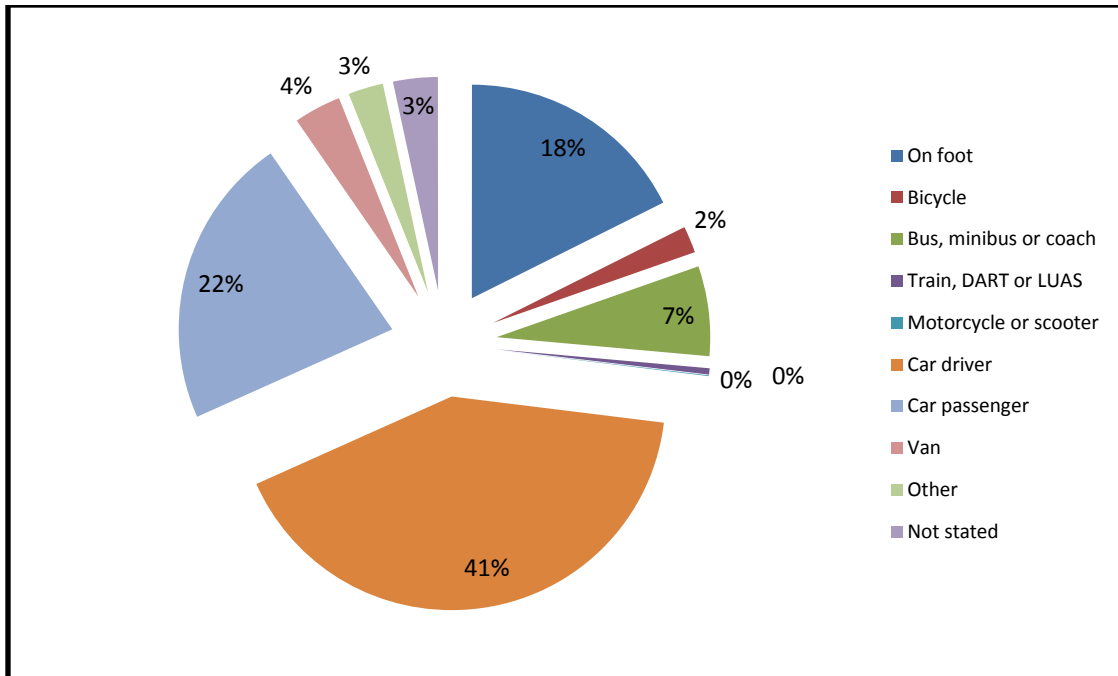


Figure 3.7 Population aged 5 years and over by means of travel to work, school or college

Figure 3.8 illustrates that 55% of the population aged 5 years and over, take under 15 minutes to get to their place of work, school or college. In contrast, only 2% take over hour and half to get to their destination.

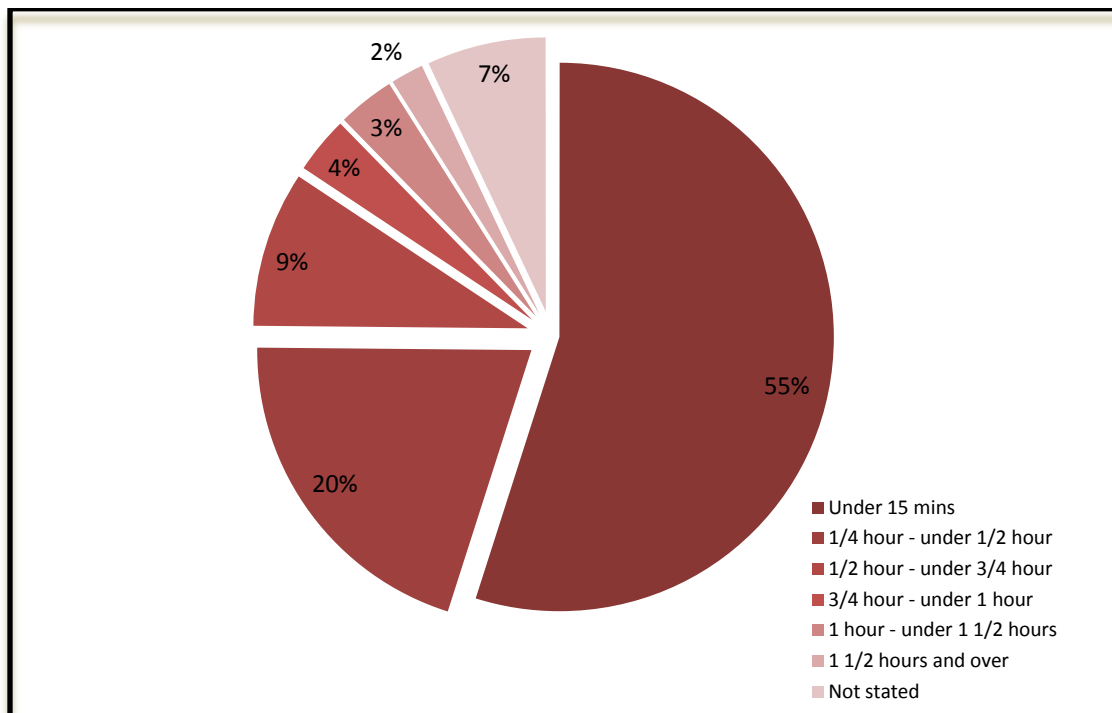


Figure 3.8 Population aged 5 years and over by journey time to work, school or college

3.5.5 Housing Composition

There were 2,382 private households in Ballinasloe in 2011, of which 653 were single person

households. Of the 1,608 families in the area, 520 were couples with no children.

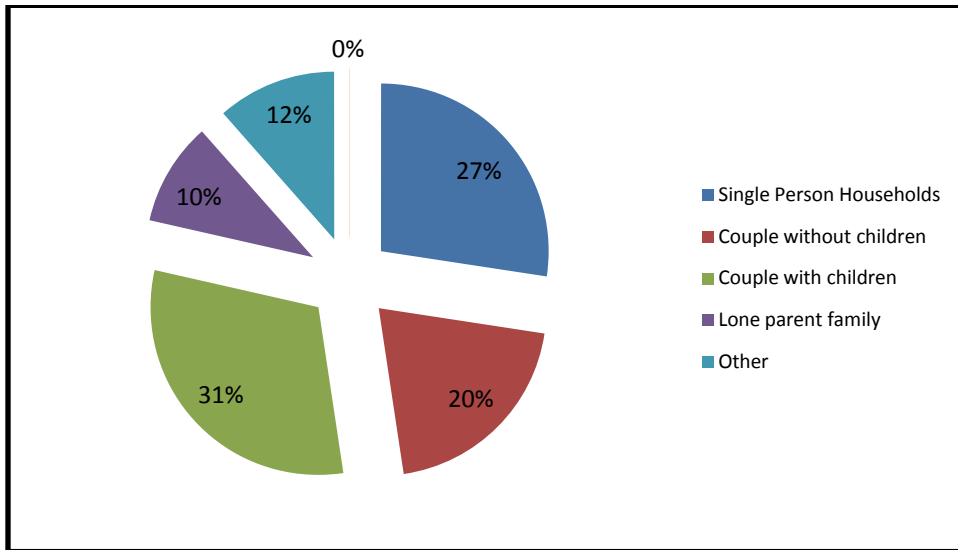


Figure 3.9 Housing Composition

3.5.6 Employment and Economy

There were approximately 2,153 persons at work within the Ballinasloe area which equates to 43% of the population aged 15 years and over. From the diagram 3.10 below there was approximately 732 persons who were unemployed or had given up their previous job. There were approximately 700 persons attending school/college. The main form of industry in the Ballinasloe area for both males and females was in the manufacturing industry which stood at 50% for each category. There were approximately 5% of males in the construction industry which was an indication of the economic climate at the time of the 2011 census.

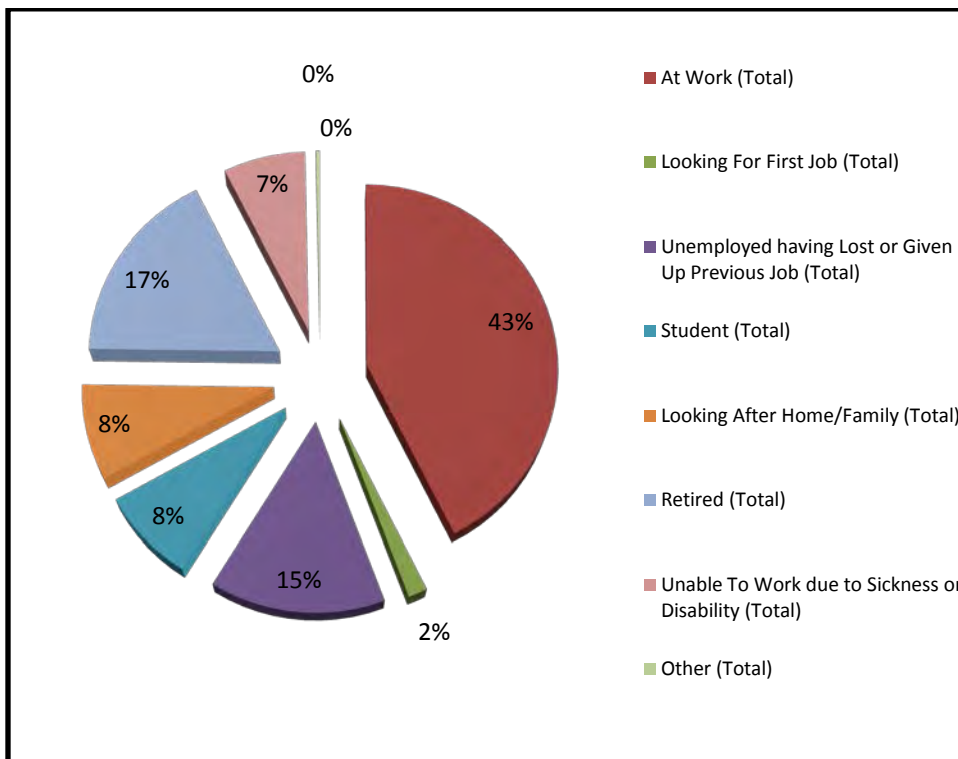


Figure 3.10 Population aged 15 years and over by principal economic status and sex

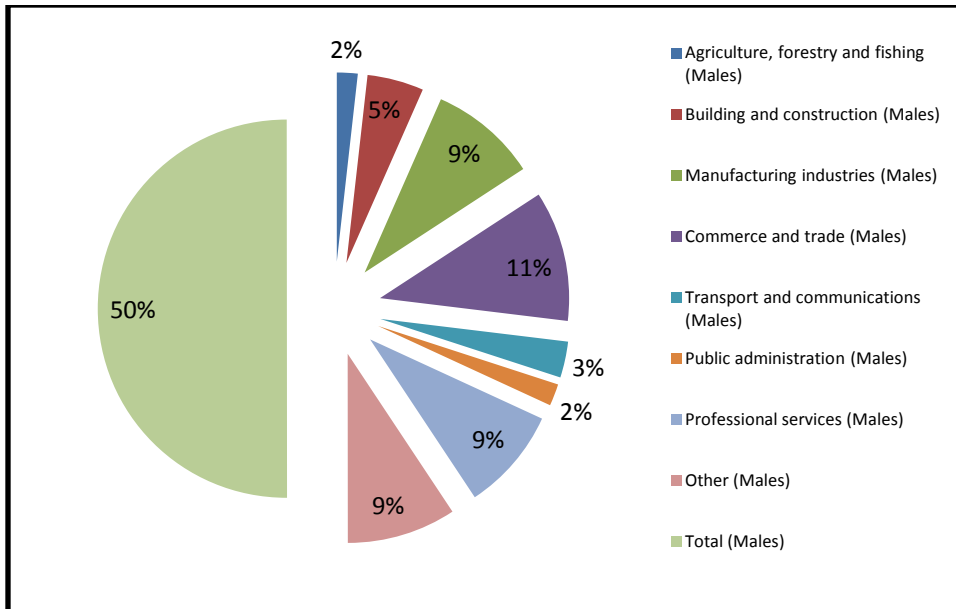


Figure 3.11 Persons at work by industry and sex (males)

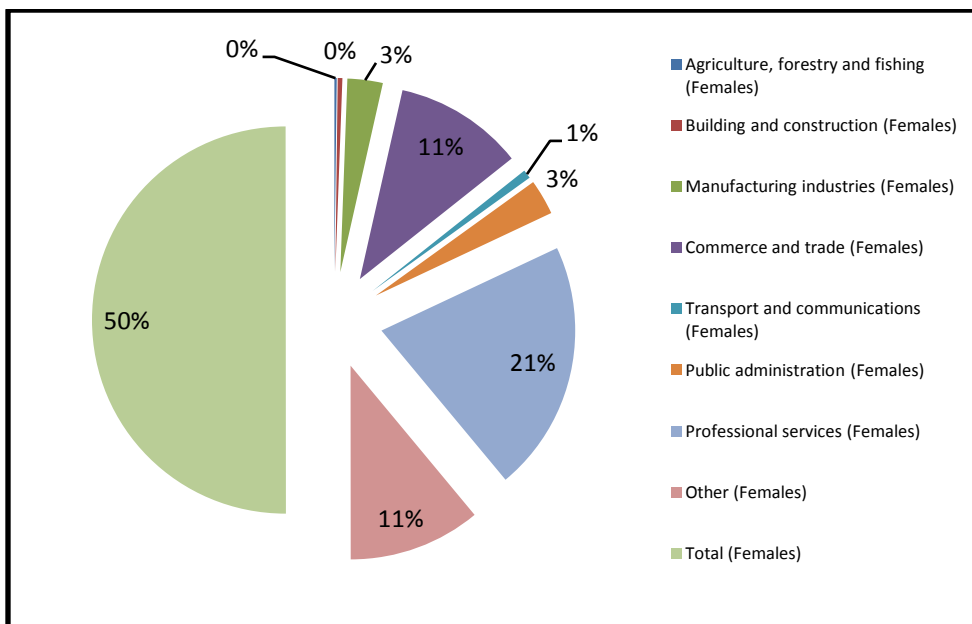


Figure 3.12 Persons at work by industry and sex (Females)

3.5.7 Human Health and Quality of Life

The cumulative effects of population change can impact on human health and the quality of life. Human health has the potential to be impacted upon by environmental vectors (i.e. environmental components such as air, water or soil) through which contaminants or pollutants, which have the potential to cause harm, can be transported so that they come into contact with human beings. Hazards or nuisances to human health can arise as a result of exposure to these vectors arising from incompatible adjacent land uses, for example. These factors have been considered with regard to the description of the baseline of each environmental component and the identification and evaluation of the likely significant environmental effects of implementing the plan and the alternatives.

3.5.8 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;
- 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 the built environment, infrastructure and biodiversity;
- Traffic hotspots located along the main road routes especially at intersections are likely to have sensory environments that are relatively more stressful due to air pollution and noise levels.

3.5.9 Evolution of Population and Human Health in the absence of a Local Area Plan

The County Development Plan Core Strategy has identified a target population growth for Ballinasloe. In order to properly plan for the sustainable development of the plan area, it is essential that this is done at a local level in the form of a local area plan.

In the absence of a Local Area Plan there would be no framework directing developments to appropriate locations and this would have the potential to result in adverse impacts upon environmental components which would negatively affect human health.

3.5.10 Inter-relationship with Other Environmental Parameters

Issues relating to population, human health and quality of life are inter-related with all of the environmental parameters.

	B	SG	W	AC	M	CH	L
Population, Human Health	✓	✓	✓	✓	✓	✓	✓

(B=Biodiversity, Flora & Fauna, PHH=Population, Human Health, SG=Soil & Geology, W=Water, AC=Air & Climatic Factors, M=Material Assets, CH=Cultural Heritage, L=Landscape).

3.6. Soil and Geology

Soils in any area are the result of the interaction of various factors, such as parent material, climate, vegetation and human action. Soils are offered protection through the proposed EU Directive 2004/35/EC of the European Parliament and of the Council through establishing a framework for the protection of soil and amending Directive 2004/ 35/EC. Whilst this Directive has not been established into law and therefore not established into National Legislation, 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 Directive indicates that this may be achieved through the rehabilitation of brown field sites, thus, reducing the pressure on development of green field site. It also states that soil should be used in a sustainable manner in order to ensure that it is available for future generations to come.

3.6.1 Soil Types

Figure 3.13 shows the distribution of soil types across the plan area. The biodiversity, flora and fauna detailed in Section 3.2.1 are facilitated by these soils. Urban soil underlies the built-up areas within the town. The majority of the plan area is covered by limestone till. Areas of cutover peat lie to the north, north-west and south of the plan area. Alluvial soils and limestone sands and gravels compromise the remainder of the plan area with minor areas of outcropping bedrock, including karstified limestone bedrock, dispersed throughout.

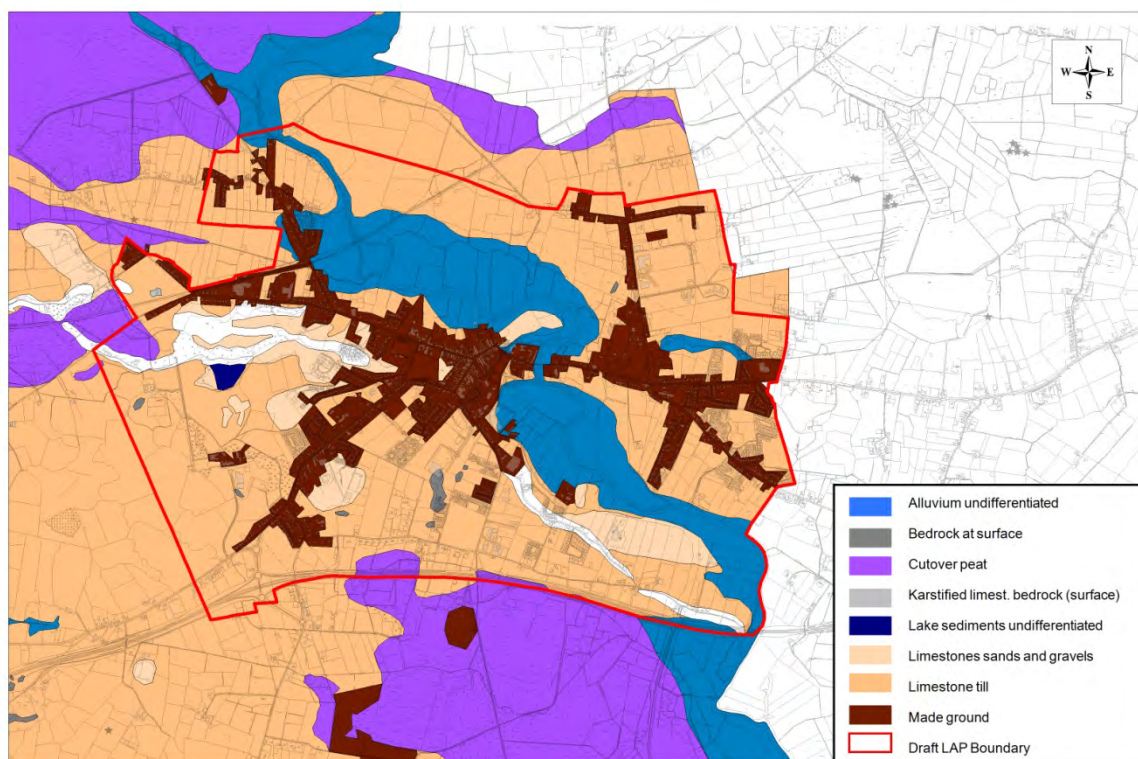


Figure 3.13 Soil Types (Source GCC)

3.6.2 Geology and Sites of Geological Interest

The soils and habitats of Ballinasloe have been influenced by the area's underlying geology (See Figure 3.13). The majority of the plan area is underlain by Viséan Limestone. Parts of the boundary of the plan area are traversed by the Lucan Formation, particularly to the south. Waulsortian Limestone makes up the remainder of the geology, occurring in the east of the plan area. There are a number of geological sites within or around the immediate environs of Ballinasloe namely the Suck River Callows, Ballinasloe – Split Hills-Clonmacnoise-Clara Esker and the Ballinasloe Top Quarry.

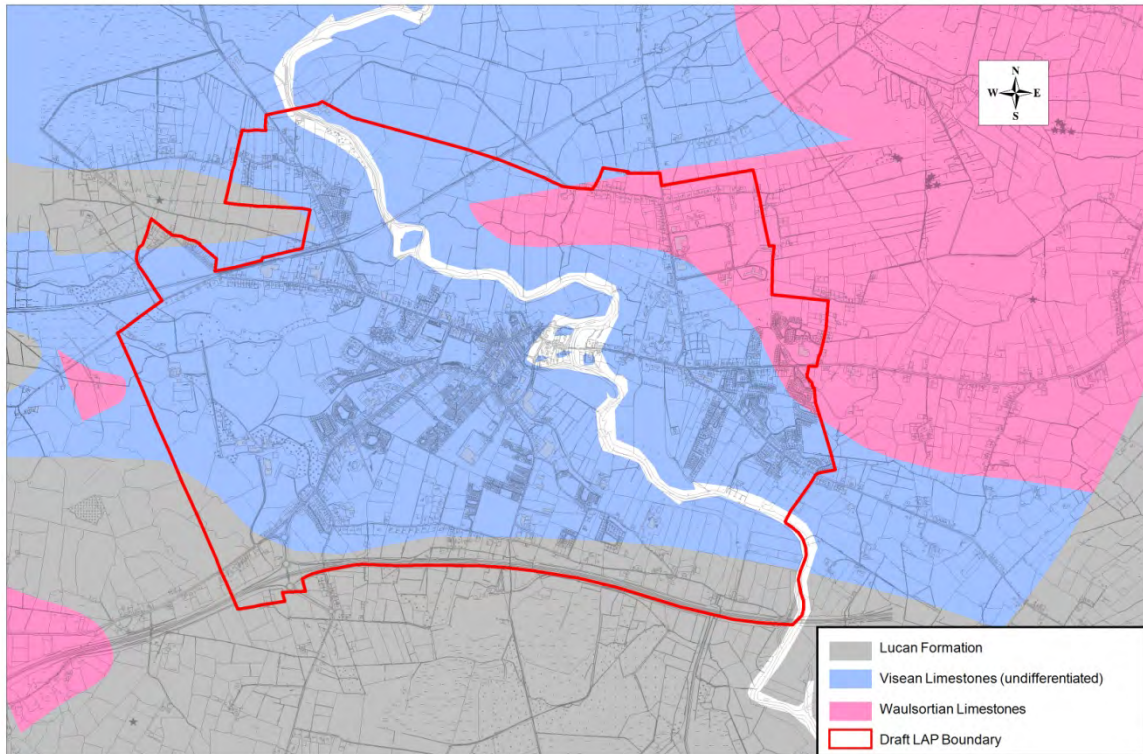


Figure 3.14 Geology. (Source GCC).

3.6.3 Eskers

Eskers were created from sands and gravels which were laid down in rivers or meltwater that covered much of Ireland at the end of the Ice Age. There are two eskers in Ballinasloe. The Esker Riada is a natural system of mounds consisting of gravel and rocks which are believed to have been deposited approximately 10,000 years ago, when an ice-age glacier covering Western Europe melted as a result of local climatic warming. The larger of the two eskers, to the south of the town, is a dominant landscape feature, with significant views towards the town and southwards to the bogland area of Pollboy. As outlined in Section 3.4.6.3, Ballinasloe Esker is a pNHA and is located within Garbally Demesne. This is the smaller esker, which runs parallel to Sarsfield Road. This area includes a significant area of woodland, and has significant views across the Fair Green and the town.

3.6.4 Existing Problems

- 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 potential to impact on water quality. In addition to water quality, these can impact on infrastructure and can have health and safety implications. Erosion of the eskers due to quarrying activity is a problem.

3.6.5 Evolution of Soil and Geology in the absence of a Local Area Plan

In the absence of a Local Area Plan there would be no framework for future development nor protection of the soil and geology within the environment of the town. There would be no framework for the provision of infrastructure, such as those relating to waste water treatment to

serve existing and future development, therefore, soil would have the potential to be polluted and contaminated as a result of development which is not serviced appropriately by adequate waste water infrastructure. A key objective to rehabilitate brown field and derelict sites opposed to developing greenfield sites may not be achieved which will result in potential subsequent impacts not only on soil quality, but on biodiversity, groundwater quality and water supply and consequently potential impacts on public health.

3.6.6 Inter-relationships with Other Environmental Parameters

The environmental parameters of soil and geology have a strong inter-relationship with all of the other parameters especially biodiversity, flora and fauna, population and human health and material assets.

	B	PHH	W	AC	M	CH	L
Soil & Geology	✓	✓	✓	✓	✓	✓	✓

(B=Biodiversity, Flora & Fauna, PHH=Population, Human Health, SG=Soil & Geology, W=Water, AC=Air & Climatic Factors, M=Material Assets, CH=Cultural Heritage, L=Landscape).

3.7 Water

The water resources of the region comprise surface waters including rivers, lakes and ground water. These resources are utilised for a wide range of uses including potable water, industry, amenity, agriculture and in the substance of ecosystems. Water within and surrounding Ballinasloe has many functions: it provides drinking water to the area's population; it sustains biodiversity and flora and fauna; and, it is also an integral part of the landscape. Flooding is examined in this section, but while wastewater treatment and water supply are also referred to these parameters will primarily be examined under the Material Assets, which are outlined in Section 3.9.

3.7.1 Potential Pressures on Water Quality

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

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

3.7.2 The Water Framework Directive (WFD)

Since 2000, water management in the EU has been directed by the Water Framework Directive 2000/60/EC (WFD). The WFD requires all member states implementing the necessary measures to prevent deterioration of the status of all waters-surface, ground, estuarine and coastal and to protect, enhance and restore all waters with the aim of achieving good status by 2015. The new European Union (Water Policy) Regulations 2014 give effect to a new three tier governance structure and administrative arrangements to bring “clarity and certainty to the implementation of the Water Framework Directive”, whereby local authorities(Tier 3) will lead on implementation, enforcement and public engagement at local level.

3.7.3 River Basin Districts

For the purpose of implementing the WFD, Ireland has been divided into eight river basin districts. The plan area is located in the Shannon International River Basin District (SIRBD) and, as such, much information regarding the environmental baseline is derived from the Shannon International River Basin Management Plan (SIBMP)¹⁰. Ballinasloe is located within the Suck Water Management Unit of the

¹⁰ The Shannon International River Basin District Management Plan 2009-2015 is a plan for the implementation of the EU Water Framework Directive, which commits all members' states to preventing deterioration and achieving at least good status in our rivers, lakes, estuaries, coastal and ground

Shannon International River Basin Management Plan. The implementation of the Shannon International River Basin Management Plan will bring incremental improvement leading to the majority of waters reaching at least 'good status' at the latest by 2027. The current plan will be reviewed and a revised plan will issue covering the period 2016-2021. The River Suck has been listed on the Register of Protected Areas (RPA) for Water Dependent Habitats and Species. This Register includes habitats that are dependent on water: this includes areas already listed by the National Parks and Wildlife Service (NPWS) as Special Protection Areas for the protection of birds, as per the EU Birds Directive (79/409/EEC). In Ireland, waters intended for human consumption are protected under the Drinking Water Regulations (S.I. 439/2000/SI 278 OF 2007). All groundwater underlying the plan area is included on the Register of Protected Areas as outlined in the map below.

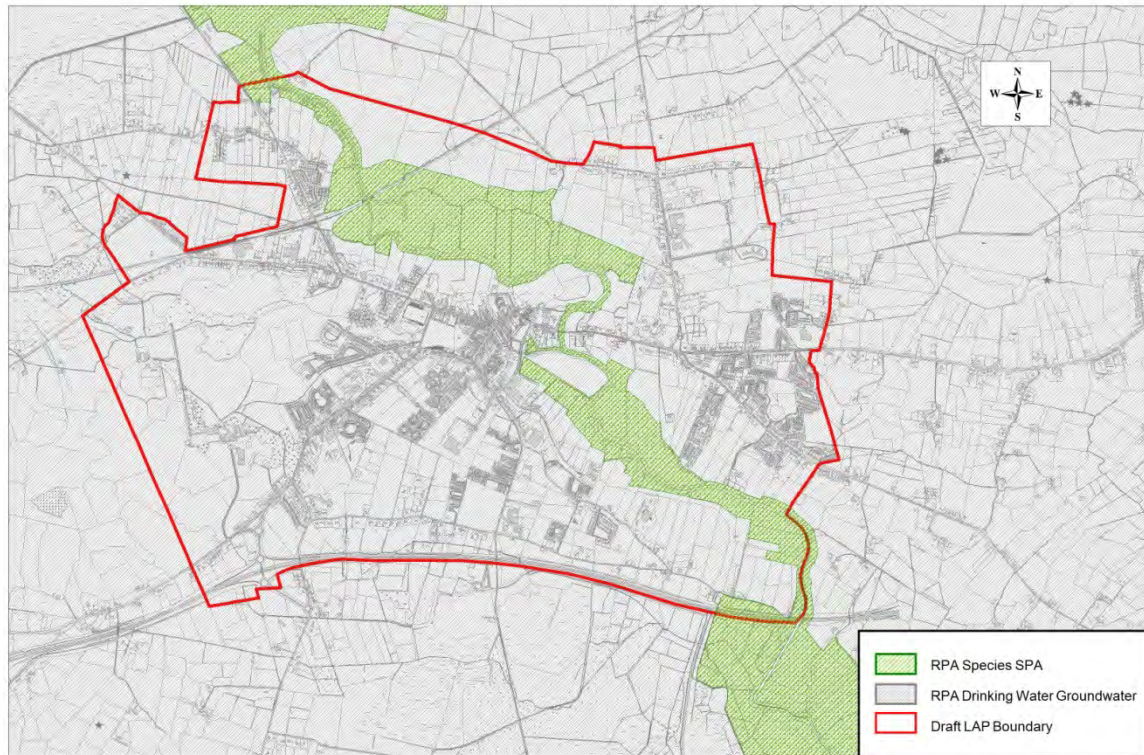


Figure 3.15 WFD Register of Protected Areas. (Source GCC).

3.7.4 Rivers

River water quality within the county is monitored by the EPA at a number of locations. Good status as defined by the WFD equates to approximately Q4 in the national biological classification scheme of rivers as set out by the EPA. Monitoring locations are generally of a *high* or *good* status in the west of the county while monitoring locations in the east of the county are a mixture of *high*, *good*, *moderate* and *poor* status. Rivers flowing through or adjacent to the plan area are mapped in Figure 3.16. The River Suck, which runs through the centre of Ballinasloe Town, is the most dominant river. It is the largest of the River Shannon's three tributaries in the context of Ballinasloe:

- The *River Suck* originates in Loch O' Flynn, in County Roscommon, and runs south through

waters by the year 2015. The Plan describes actions that are proposed to ensure the necessary protection of waters over the coming years. It sets out the aims and objectives of improving and protecting water quality and ecology in the waters of each river basin district could be achieved, by means of a Programme of Measures.

Galway to meet the River Shannon near Shannonbridge. As the river passes through Ballinasloe it meanders in a south easterly direction through the backlands of Main Street and Society Street. The river is in the last stages of its journey as it passes through the town and before it meets the River Shannon;

- The *Bunowen River* rises in the hills near Ballymacward. It flows east to meet with the Ahascragh River before flowing in a south easterly direction to meet with the Suck at the plan boundary to the north of the town;
- The *Deerpark River* rises in woodland near Killagh Beg. It flows to the north east where it meets with a number of other tributaries before flowing to the east to meet with the River Suck in Ballinasloe town.

There are also a number of streams that enter the River Suck within the plan area:

- The *Cuilleen* stream flows into the River Suck to the northwest of the plan area at Derrymullen;
- The *Kellysgrove* stream enters the River Suck to the south of the plan area.

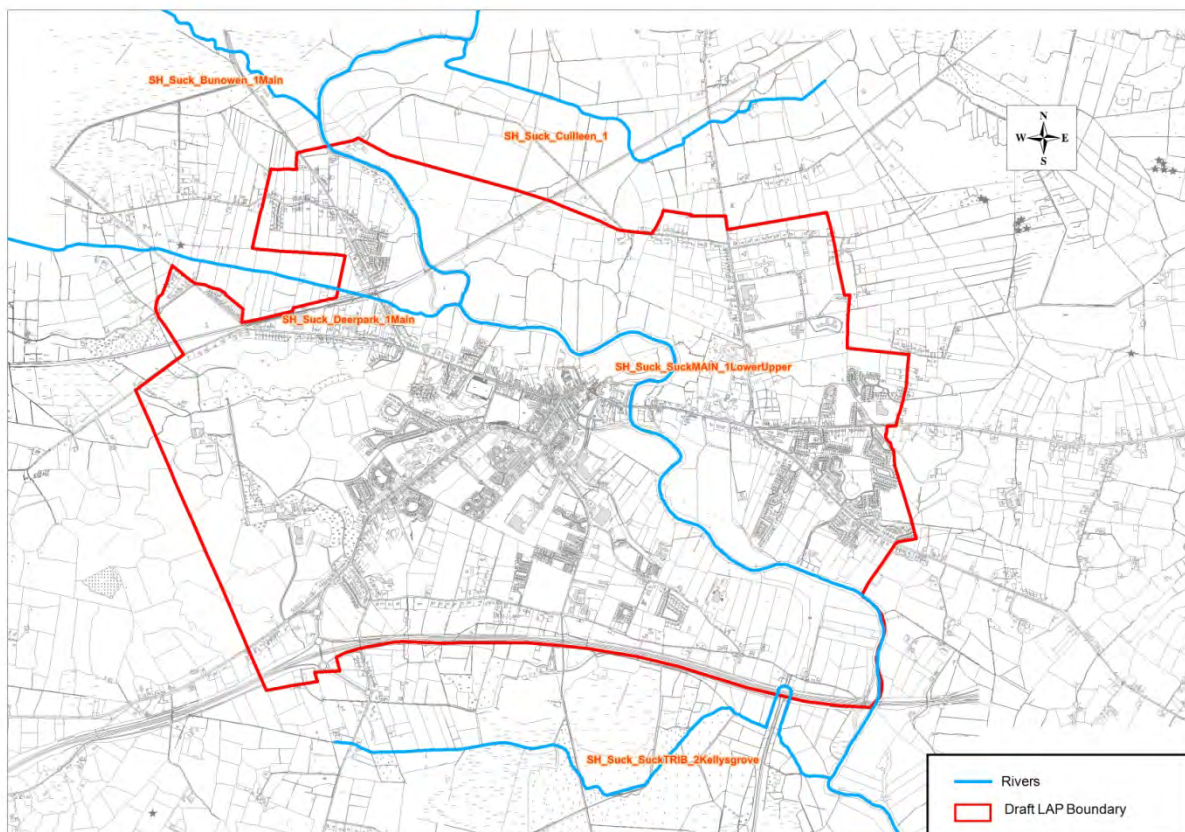


Figure 3.16 Rivers within plan area. (Source GCC).

The most recent river water body quality data¹¹ identifies the following:

- The River Suck (IE_SH_26_1447_4 & IE_SH_26_1447_5) as being of Good Status (Q4)¹² before it enters the plan boundary area at Derrymullen where its status drops to Poor Status (Q3);

¹¹ WFD RBMP Implementation Plan 2011

¹² 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.

- The Deerpark River (IE_SH_26_3977) is classified as being of Good Status (Q4);
- The Bunowen River (IE_SH_26_3041) is classified as Poor Status (Q3);
- The Suck Cuilleen (IE_SH_26_936) is classified as Moderate Status (Q3-Q4);
- The Suck Kellysgrove (IE_SH_26_3824) is classified as Moderate Status (Q3-Q4).

These values are mapped on Figure 3.17 as shown below.

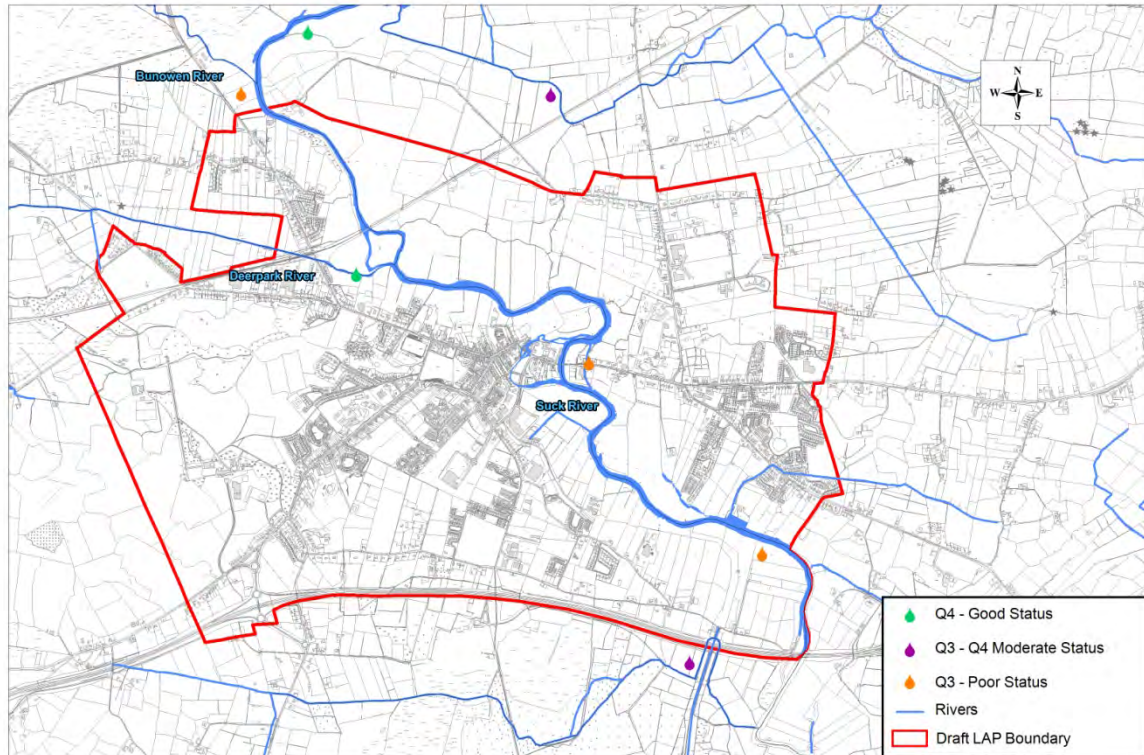


Figure 3.17 Water Quality of Rivers (Q Values). (Source EPA, SRBD, GCC).

The following is a brief summary of the river water-body status as outlined within the Water Framework Directive (WFD):

1. River Suck (IE_SH_26_1447_4 & IE_SH_26_1447_5)

According to the Water Framework Directive - Report data based upon final RBMP 2009-2015 the river water-body had an overall status of 'poor'. The river water-body was 'at risk' (1a) of not achieving good ecological or good chemical status/potential at least by 2015. The overall WFD objective is to restore this water body to good status by 2021.

2. Deerpark River (IE_SH_26_3977)

According to the Water Framework Directive - Report data based upon final RBMP 2009-2015 the river water-body had an overall status of 'good'. The river water-body was 'not at risk' (2b). The overall WFD objective is to protect this water-body.

3. Bunowen River (IE_SH_26_3041)

According to the Water Framework Directive - Report data based upon final RBMP 2009-2015 the river water-body had an overall status of 'poor'. The river water-body was at risk (1a) of not achieving good ecological or good chemical status/potential at least by 2015. The overall WFD objective is to restore this water body to good status by 2021.

4. Suck Cuilleen (IE_SH_26_936)

According to the Water Framework Directive - Report data based upon final RBMP 2009-2015 the river water-body had an overall status of 'moderate'. The river water-body was at risk (1a) of not achieving good ecological or good chemical status/potential at least by 2015. The overall WFD objective is to restore this waterbody to good status by 2015.

5. Suck Kellysgrove (IE_SH_26_3824)

According to the Water Framework Directive - Report data based upon final RBMP 2009-2015 the river water-body had an overall status of 'moderate'. The river water-body was at risk (1a) of not achieving good ecological or good chemical status/potential at least by 2015. The overall WFD objective is to restore this water body to good status by 2015.

Figure 3.18 illustrates the current risk assessment for the Bunowen River, the Deerpark River, and the River Suck, the Cuilleen River and the Kellysgrove River.

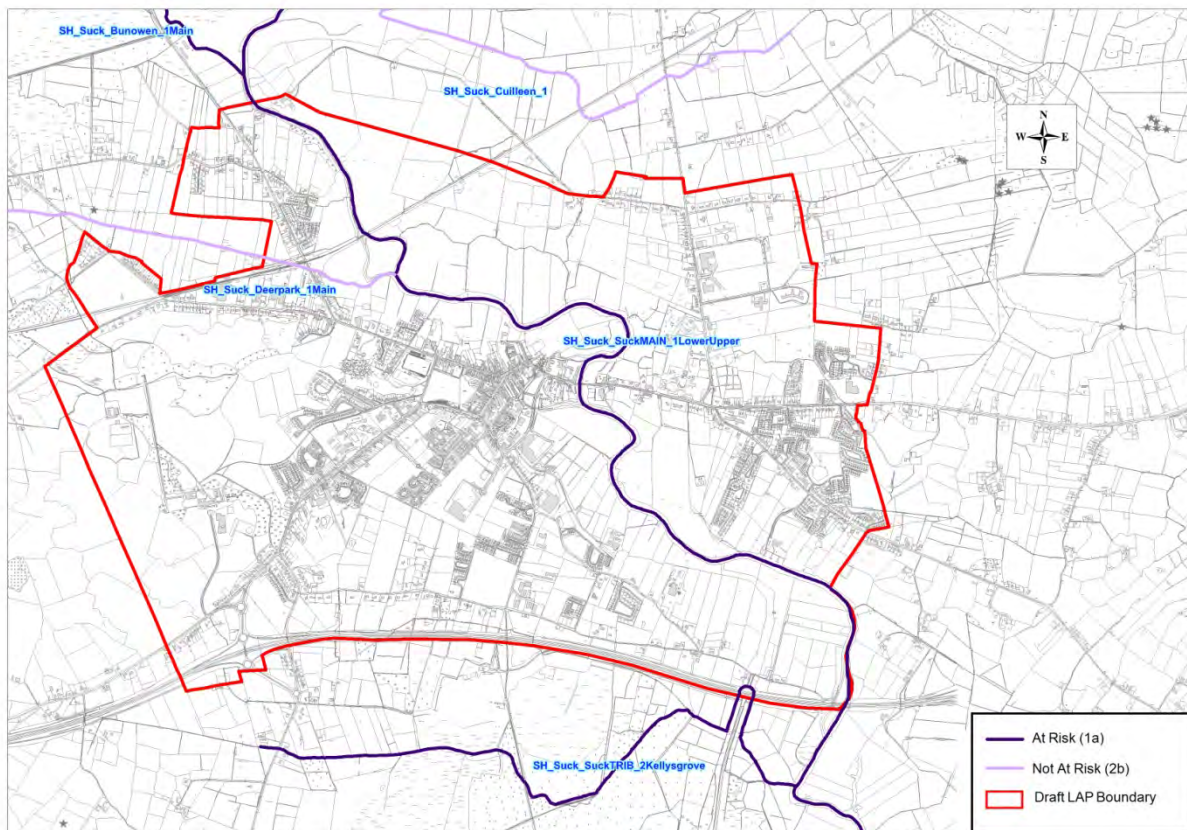


Figure 3.18 Risk Assessments of Rivers. (Source WFD).

3.7.5 Ground Waters

Groundwater is defined as the water stored underground in formations of saturated rock, sand, gravel and soils. The protection of groundwater from human activity is crucial as the resource is highly susceptible to contamination with long term consequences for humans and the environment. The main groundwater water-body in the plan area is - The Suck South (IE_SH_G_225).

According to the Water Framework Directive the ground water-body is at risk (1a) of not achieving good status by 2015. The overall WFD objective is to restore this ground water-body to good status by 2021.

Figure 3.19 illustrates the groundwater body in the plan area and Figure 3.20 maps the current risk assessment for groundwater in the Ballinasloe area.

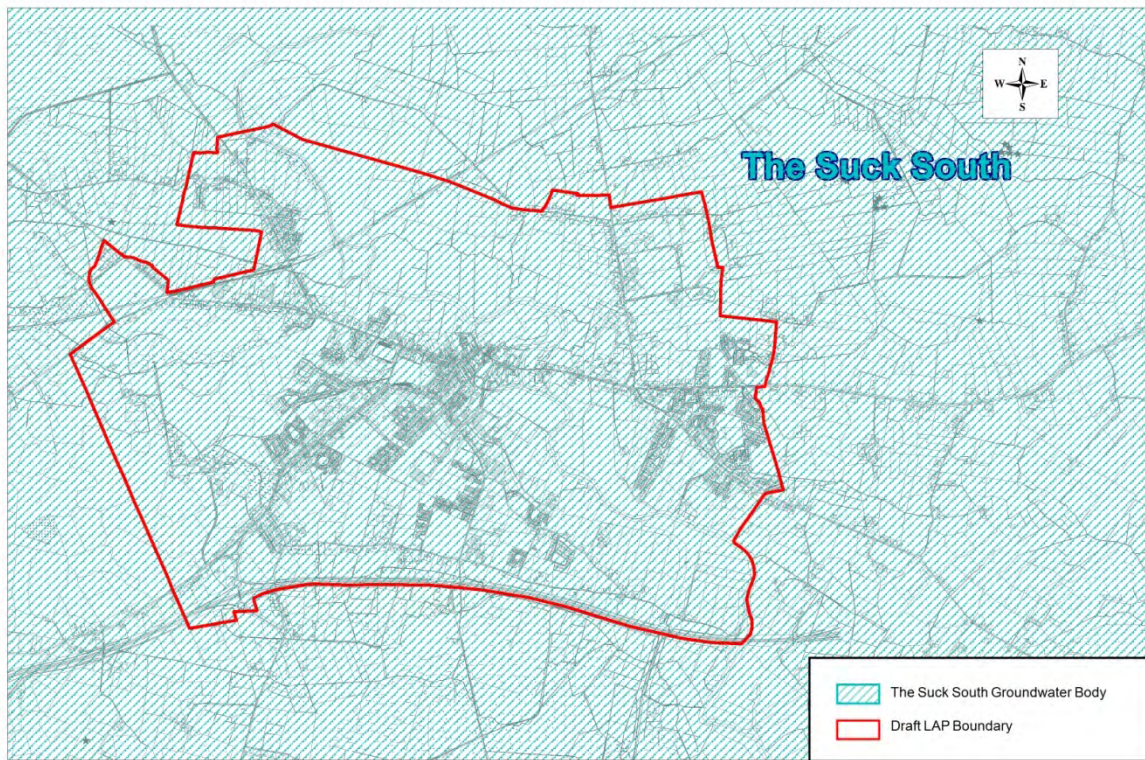


Figure 3.19 Groundwater Bodies in the plan area. (Source EPA).

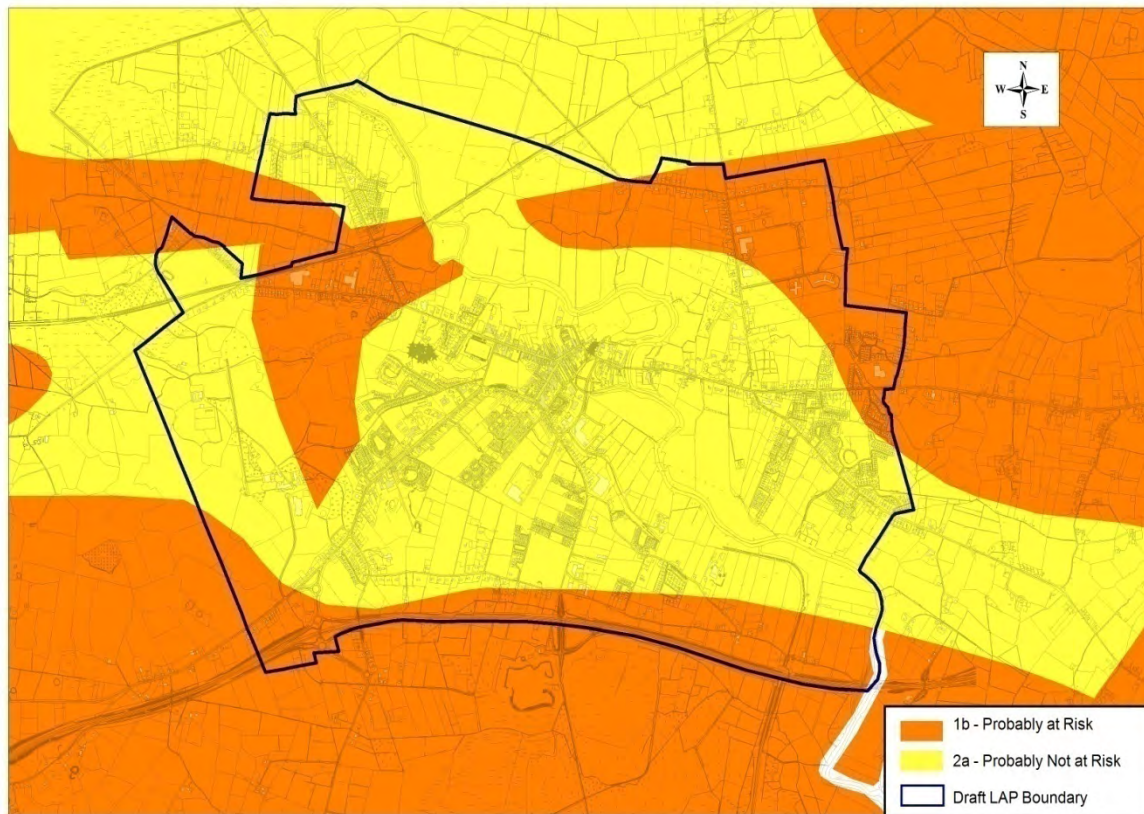


Figure 3.20 Risk Assessment of Groundwater. (Source EPA, GCC).

3.7.5.1 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 3.21 shows that only an interim study has taken place for most of the plan area so a general high to low rating is given. Some patches of the area, are rated as Extreme, and with areas of Extreme (rock near surface or Karst) identified within these regions.

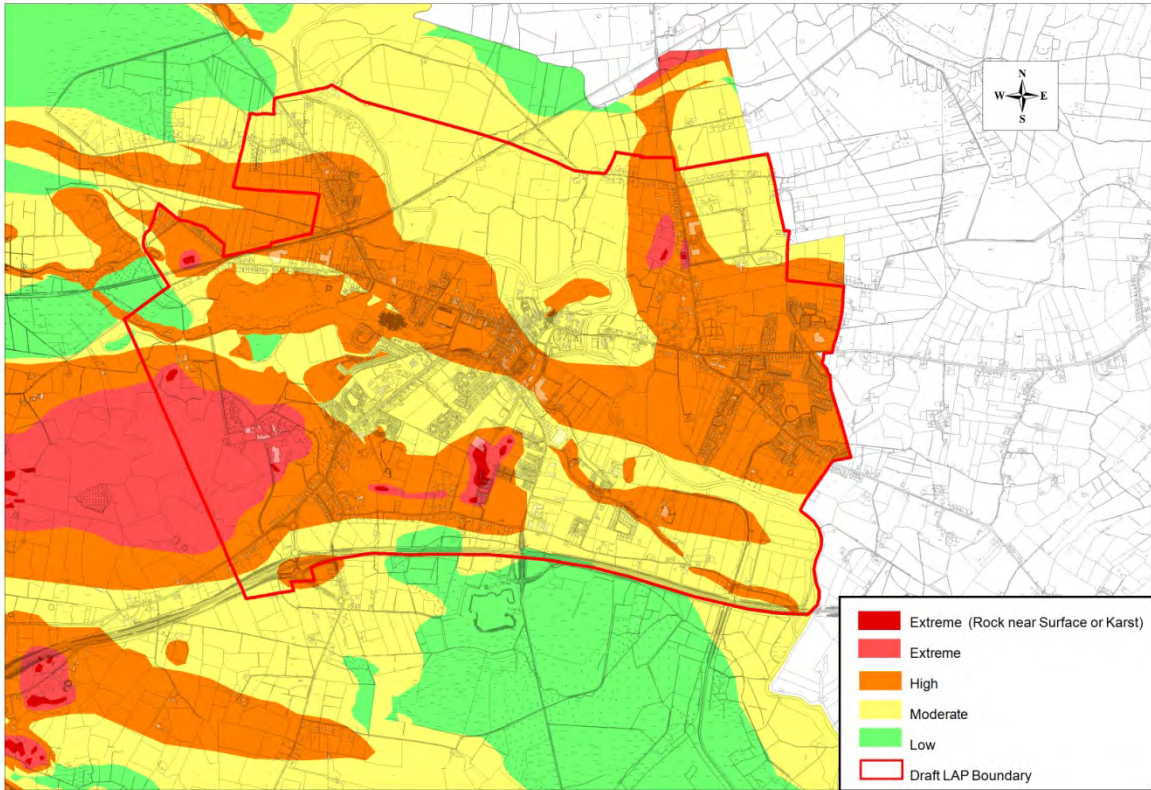


Figure 3.21 GSI Groundwater Vulnerability. (Source GSI website).

3.7.5.2 Groundwater Productivity

The GSI rates aquifers based on the hydro-geological characteristics and on the value of the groundwater resource. The plan area is divided into two main ratings as seen on Figure 3.22. The north of the plan area is underlain by a regionally important aquifer. The remainder of the plan area is underlain by a locally important aquifer which is moderately productive only in local zones.

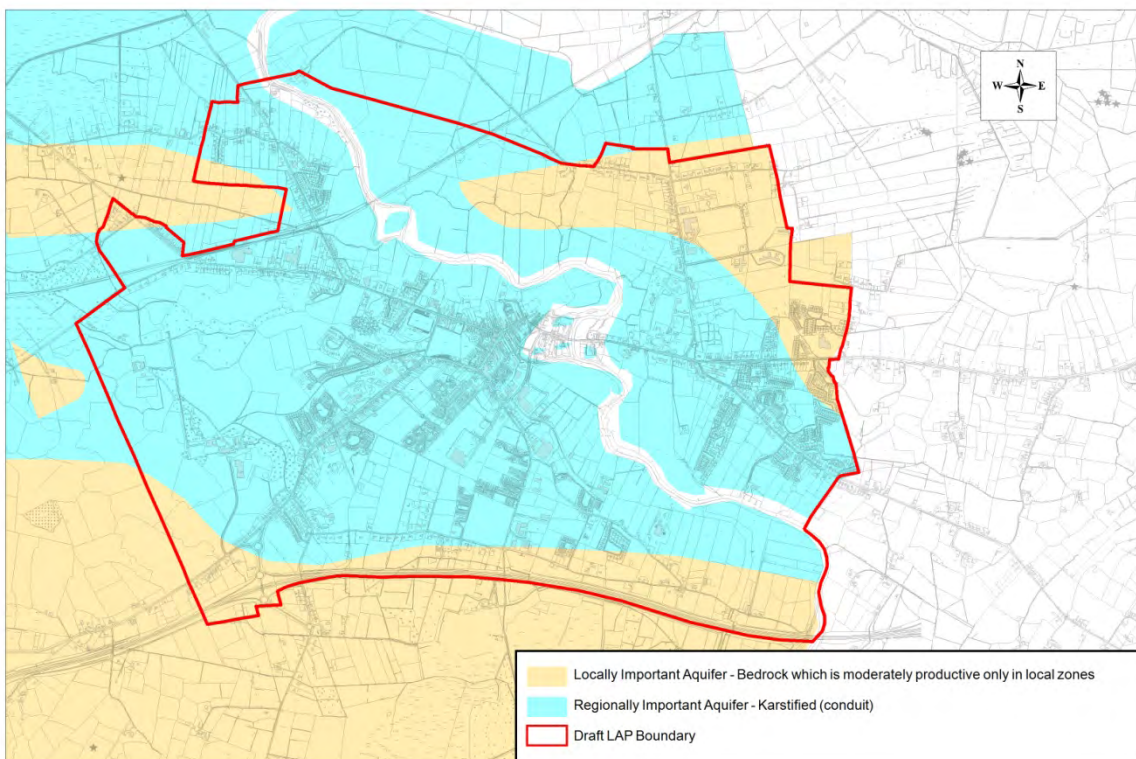


Figure 3.22 Groundwater Productivity. (Source EPA, GCC and GSI).

3.7.6 Flooding

Flooding is a natural environmental phenomenon. Floods are usually caused by a combination of events including overflowing river banks, coastal storms or blocked or overloaded drainage ditches. As well as causing economic, social and ecological impacts, floods in certain circumstances pose a risk to human health. Ballinasloe is vulnerable to adverse effects from changes in the occurrence of severe rainfall events and associated flooding of the local rivers, particularly the River Suck, combined with small changes in sea level.

The Department of the Environment Heritage and Local Government and the Office of Public Works (OPW) published national flood risk management guidelines entitled *The Planning System and Flood Risk Management: Guidelines for Planning Authorities 2009* and the associated Circular PL2/2014. These Guidelines and associated circular require Planning Authorities to ensure that, where relevant, flood risk is a key consideration in preparing development plans, local area plans and the assessment of planning applications. The aim of the guidelines is to avoid flood risk where possible, substitute less vulnerable uses when avoidance is not possible and mitigate and manage the risk where avoidance and substitution are not possible.

The OPW has produced flood maps as part of the Draft Preliminary Flood Risk Assessment (PFRA) that identify areas at risk of flooding, including fluvial, coastal, pluvial and groundwater flooding. More accurate maps for each Area for Further Assessment (AFA) will be produced for areas of potentially significant risk under a programme of Western and Shannon Catchment Flood Risk Assessment and Management Studies (CFRAMS). However, due to the delay in publishing the final CFRAM maps, the Planning Authority has carried out a Stage 2 Strategic Flood Risk Assessment (SFRA), which forms part of the preparation of the plan. The flood zones identified within the Ballinasloe Local Area Plan was derived from a number of sources which helped prepare the Stage 2 Flood Risk Assessment. Undeveloped land

within Flood Zone A and Flood Zone B have been zoned as Open Space, Recreation and Amenity as outlined within the Land Use Zoning Maps 1A/1B of the Ballinasloe Local Area Plan and as shown in figure 3.23, thus avoiding incompatible uses and directing inappropriate development away from these zones. Such development would be assessed in accordance with the Planning System and Flood Risk Management Guidelines 2009. There are a number of existing developments that lie within Flood Zone A and Flood Zone B, a Constrained Land Use zoning has been applied to these areas which seeks to facilitate the appropriate development of existing buildings while ensuring protection against flood risk.

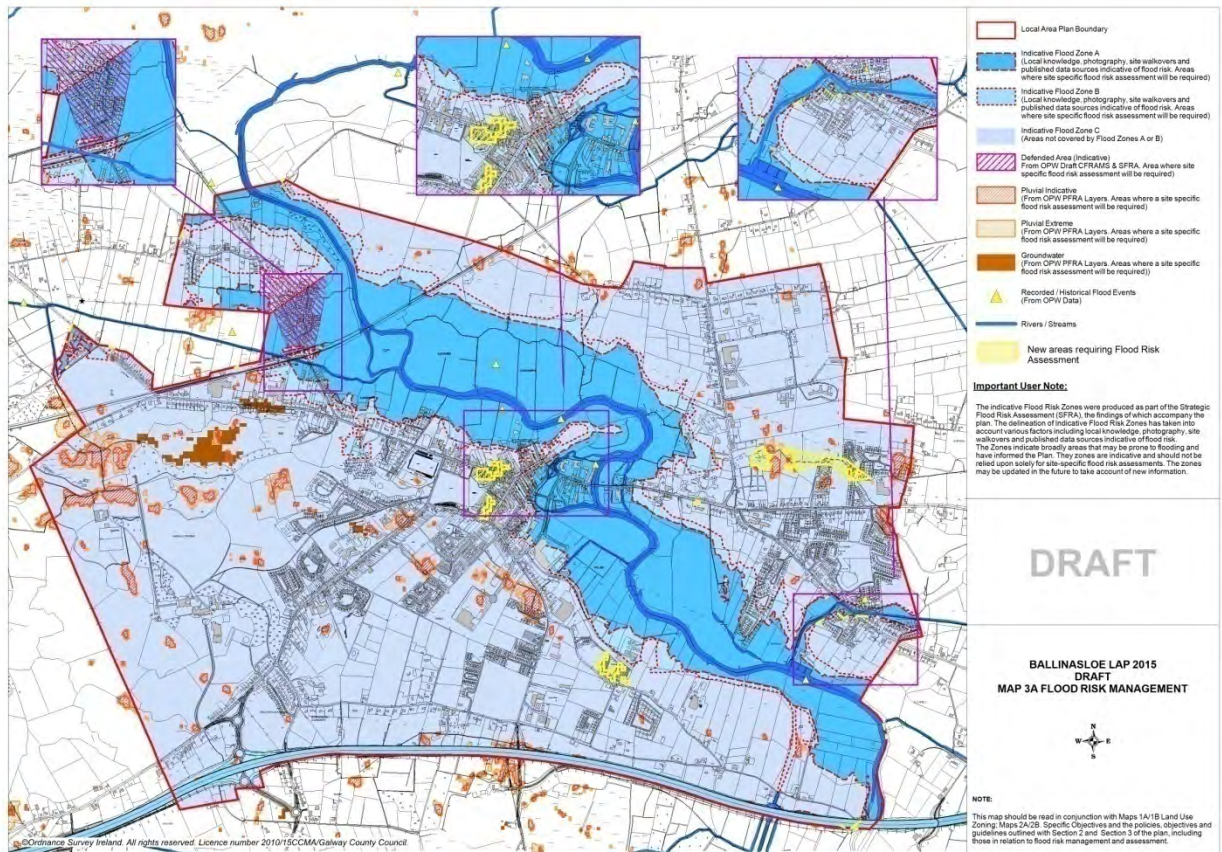


Figure 3.23 Flood Risk Assessments (Source GCC).

3.7.7 Existing Problems

The above descriptions identify a number of sensitivities with regard to the status of water bodies within the Ballinasloe plan area. Groundwater underlying the plan area and the Suck River Callows SPA are both listed on Registers of Protected Areas under the Water Framework Directive.

- The majority of surface waters are 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;
 - Morphological pressures including intensive land use; and
 - Point sources such as combined sewer and treatment plant overflows and waste water treatment plants.
- Potential increase in the levels of flooding within the plan area.

3.7.8 Evolution of Water in the absence of a Local Area Plan

The replacing of semi-natural land cover types with artificial, more impervious surfaces is likely to lead to cumulative increases in the run-off and peak flow conditions in the local river bodies. These cumulative increases may have the potential to, especially in combination with the occurrence of severe rainfall events, result in flooding. Uncoordinated development in the absence of a local area plan could lead to the contamination of groundwater.

Significant adverse impacts upon the biodiversity and flora and fauna of the area could potentially rise.

3.7.9 Inter-relationships with Other Environmental Parameters

The environmental parameter water has a strong inter-relationship with all of the other parameters especially biodiversity, flora and fauna, population and human health and material assets. It is essential that a clean and sufficient water supply is provided for the general population of the area.

	B	PHH	SG	AC	M	CH	L
Water	✓	✓	✓	✓	✓	✓	✓

(B=Biodiversity, Flora & Fauna, PHH=Population, Human Health, SG=Soil & Geology, W=Water, AC=Air & Climatic Factors, M=Material Assets, CH=Cultural Heritage, L=Landscape).

3.8 Air and Climatic Factors

3.8.1 Ambient Air Quality

An updated and integrated approach to monitoring, assessment and management of air quality within the European Union was introduced through the Clean Air for Europe Directive, (CAFE, 2008/50/EC) on the 21st May 2008. The Directive replaced the pre-existing Air Quality Framework Directive (96/62/EC, 2nd September 1996) and three of the four preceding Air Quality Framework Daughter Directives. It came into effect as of June 2010. The EU *Ambient Air Quality and Cleaner Air for Europe (CAFE) Directive (2008/50/EC)* was transposed into Irish legislation by the *Air Quality Standards Regulations 2011 (SI No. 180 of 2011)*. The basic principle of the CAFE Directive is that each country should be divided into zones and that the monitoring assessment management and reporting of air quality will be undertaken in relation to these zones.

3.8.2 Air Zones

In order to comply with the directives mentioned above, the EPA measures the levels of a number of atmospheric pollutants. For the purposes of monitoring in Ireland, four zones are defined in the Air Quality Standards Regulations 2011 (SI No. 280 of 2011).

The main areas defined in each zone are:

Zone A: Dublin;

Zone B: Cork;

Zone C: Other cities and large towns comprising Limerick, Galway, Waterford, Drogheda, Dundalk, Bray, Navan, Ennis, Tralee, Kilkenny, Carlow, Naas, Sligo, Newbridge, Mullingar, Wexford, Letterkenny, Athlone, Celbridge, Clonmel, Balbriggan, Greystones, Leixlip and Portlaoise;

Zone D: Rural Ireland, i.e. the remainder of the State excluding Zones A, B and C.

Ballinasloe falls into **Zone D**. The current air quality in the Ballinasloe Urban AQIH Region is 1 – Good. Currently there is no air quality monitoring sites in Ballinasloe. The nearest continuous/real time data air quality monitoring point to Ballinasloe is located at Bodkin Roundabout to the north of Galway City.

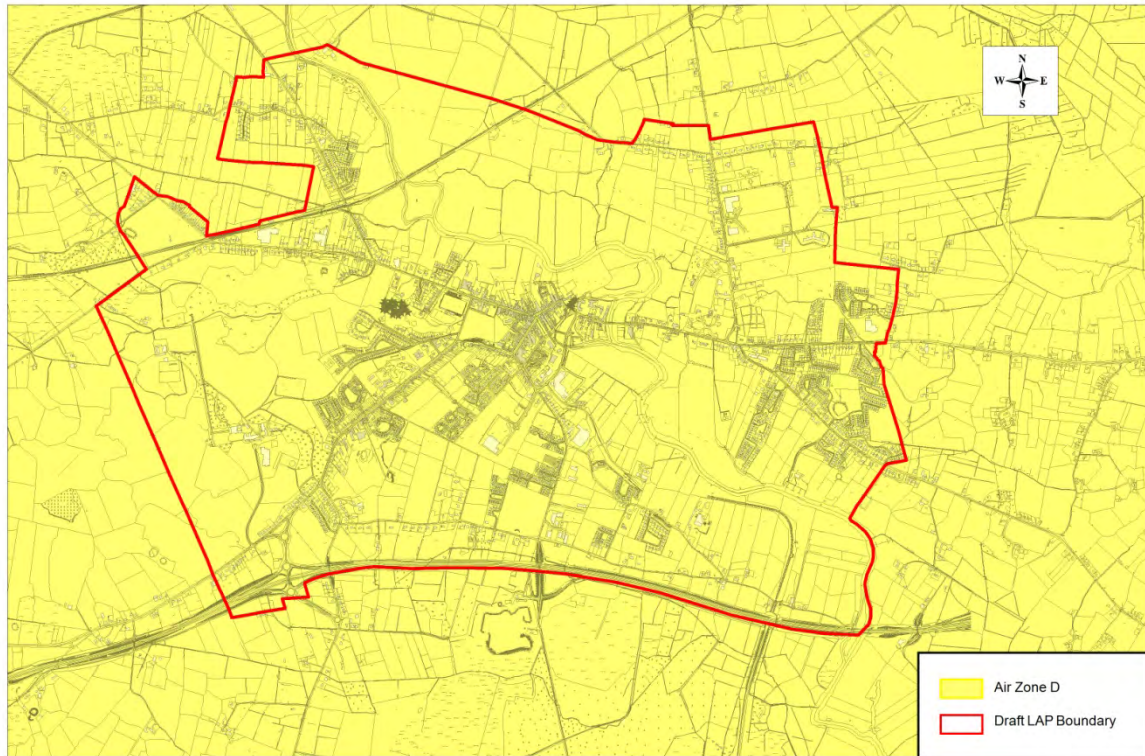


Figure 3.24 Air Zone with the plan area. (Source EPA).

3.8.3 Radon Gas

Radon is a naturally occurring radioactive and carcinogenic gas that originates from the decay of uranium in rocks and soils. Radon has no smell, colour or taste and can only be detected using special detectors. The Radon Protection Institute of Ireland (RPII) estimates that between 1% - 5% of homes in a 10km grid square pertaining to Ballinasloe town are above the reference level. The RPII highlights the dangers of exposure to radon, including increased risk of lung cancer. The RPII website provides details with regard to assessing homes for the risk of radon (www.rpii.ie).

3.8.4 Noise

The EU Directive 2002/49/EC, transposed into Irish law under Statutory Instrument number 140 of 2006 (the **Regulations**), which calls for the development of strategic noise maps and action plans for major roads, railways, airports and cities. Under the regulations, the National Roads Authority is responsible for the development of noise maps for all national roads carrying in excess of 3 million vehicles a year.

The over-riding noise source in Ballinasloe is from traffic. Traffic hotspots located along the M6 Motorway and main road routes especially at intersections are likely to have sensory environments that are relatively more stressful due to air pollution and noise levels.

The NRA website displays noise maps for major roads outside the agglomerations of Dublin and Cork. Strategic noise maps were developed by the National Roads Authority (NRA) in 2012 for just over 3000 km of national roads including the M6 Motorway and contain both Lden and Lnight noise maps. The following noise maps (Figures 3.25-3.26) indicate noise levels for the M6 motorway within the Ballinasloe Local Area Plan area.

3.8.4.1 Strategic Noise Mapping 2012 Lden Web Map

Lden is the calculated day-evening-night noise level and represents the noise indicator for overall annoyance. It is calculated over all day-evening-night periods for one year. The day period is from 07:00 to 19:00, the evening period is from 19:00 to 23:00 and the night period is from 23:00 to 07:00. The Lden indicator contains extra weighting for the evening and night periods as noise is generally more annoying during these periods.

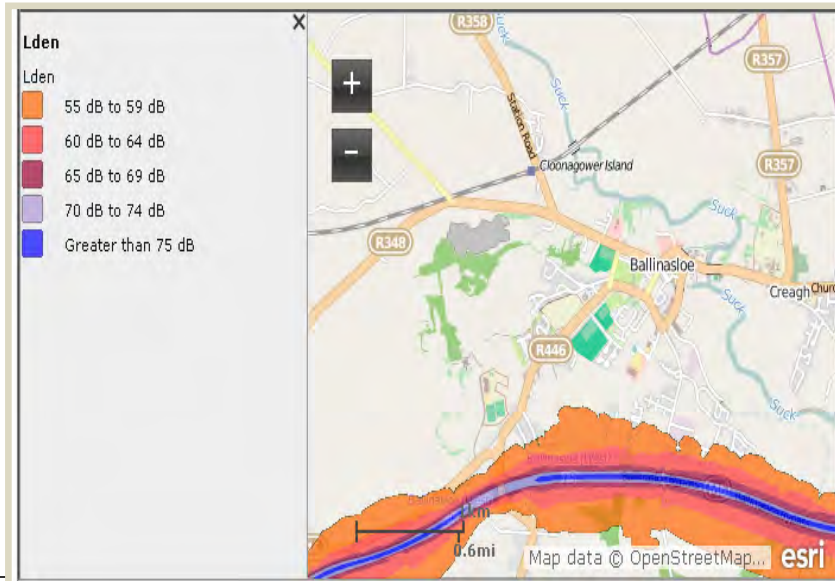


Figure 3.25 Lden Noise Map for the M6 within Plan area. (Source www.nra.ie).

3.8.4.2 Strategic Noise Mapping 2012 Lnight Web Map

Lnight is the night time noise indicator and is used in the assessment of sleep disturbance. It is the average noise level calculated over all night periods, 23:00 to 07:00, for one year. The map below indicates the Lnight decibel (dB) bands reported for Strategic Noise Mapping 2012 which relates to the plan area.

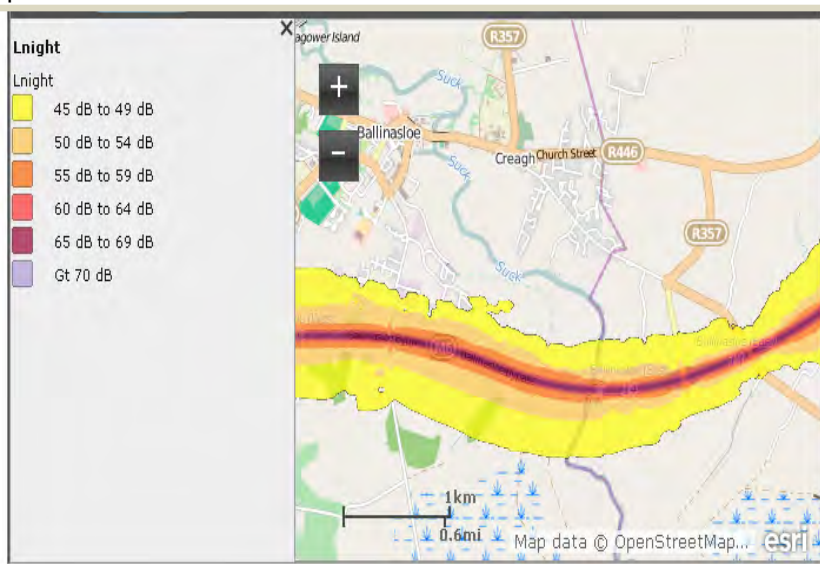


Figure 3.26 Lnight Noise Map for the M6 within Plan area. (Source www.nra.ie).

3.8.5 Climatic Factors

3.8.5.1 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 combined emissions during the five-year period 2008-2012 to 13 per cent above 1990 levels.

Under the EU Commission's Climate and Energy Package, Ireland is required to deliver a 20% reduction in non-ETS greenhouse gas emissions by 2020 (relative to 2005 levels). In addition, Ireland also has binding annual emission limits for the period 2013-2020 to ensure a gradual move towards the 2020 target. The non-ETS sectors cover those that are outside the EU Emissions Trading Scheme and include the agriculture, transport, residential and waste sectors. The 'best case scenario' assumes that Government targets for 2020, for example renewable targets, will be fully achieved (With Additional Measures projection), under this scenario, emissions decrease by 3% by 2020 (Source: EPA document titled 'Ireland's Greenhouse Gas Emission Projections 2013-2030; published 28/05/2014).

3.8.5.2 Climate Change

A *National Climate Change Adaptation Framework* is already in place since 2012 and provides the policy context for a strategic national adaptation response to climate change. This policy includes mitigation and adaptation measures and the integration of climate change considerations in planning and delivering work programmes.

3.8.5.3 Existing Problems

- Traffic hotspots within the plan area are likely to have elevated levels of air pollution and noise due to traffic congestion;
- Localised air pollution incidences with regard to PM10 and PM2.5 and noise pollution are both likely to occur when demolition/construction takes place;
- The occurrence of severe rainfall events and changes in the occurrence and magnitude of these events as a result of climate change could have an impact on the Ballinasloe area;
- The loss of habitats could present problems for species numbers and diversity especially in the Suck River Callows SPA.

3.8.6 Evolution of Air and Climatic Factors in the absence of a Local Area Plan

In the absence of a Local Area Plan there would be no framework for the location of new development and, as a consequence development would be likely to occur in a piecemeal fashion, spread out across wider areas than otherwise maybe the case. This would result in significant increases in travel related emissions in the air.

While increases in the use of catalytic convertors, cleaner fuels, better engine technology and maintenance is generally reducing the pollution emitted per motor vehicle, this reduction is more than likely offset by the increases in the number of cars as well as the increase in the volume of incidences of traffic congestion. Increases in the number of cars as well as the increases in volume and increased traffic congestion may lead to increases in air and noise pollution in the future.

In the absence of a Local Area Plan the realisation of objectives relating to energy efficiency, renewable energy and a reduction in transport related emissions contained within the Local Area Plan would be made more difficult. 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 on human health, would likely to arise if unmitigated.

3.8.7 Inter-relationships with Other Environmental Parameters

The environmental parameter air and climatic factors have a strong inter-relationship with all of the other environmental parameters. In order for the other environmental parameters to succeed it is essential that climate change and air quality is closely monitored and measures incorporated to reduce the impact of climate change on the local environment which has a direct effect on the quality of life of the local population. Reduction in greenhouse gases contributes to the air quality

thus improving the quality of life of the general population of the area.

	B	PHH	SG	W	M	CH	L
Air & Climatic Factors	✓	✓	✓	✓	✓	✓	✓

(B=Biodiversity, Flora & Fauna, PHH=Population, Human Health, SG=Soil & Geology, W=Water, M=Material Assets, CH=Cultural Heritage, L=Landscape).

3.9 Material Assets

3.9.1 Categories of Material Assets

The material assets of Ballinasloe may be broken down into a number of relevant categories including:

- Wastewater;
- Drinking water;
- Waste management;
- Transport infrastructure, telecommunication and energy infrastructure;

Irish Water is responsible for the operation of public water and wastewater services. In May 2014, Irish Water published the Proposed Capital Investment Plan 2014-2016 and will implement same in conjunction with the Water Services Section of Galway County Council in order to secure the provision of an adequate public water supply and wastewater infrastructure network within the county.

3.9.2 Waste Water Treatment Infrastructure

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 wastewater discharges by ensuring that waste water 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. The drainage system at Ballinasloe collects foul sewerage, industrial effluent and rainwater. Ballinasloe Town is split into three main drainage catchments in the east and west of the town and at St. Brigid's Hospital. These drainage catchments are further divided into 10 drainage areas with 10 associated sewage pumping stations within the town collection system. (See Figure 3.29)

Wastewater arising from the plan area is treated to primary and secondary treatment (with phosphorus removal) at the Ballinasloe Public Sewerage Treatment Works at Pollboy. The public wastewater treatment plant at Pollboy has a current design capacity of 13,500 population equivalent (P.E.) and the current loading to the plant is 12,100 P.E., leaving a spare capacity of 1,400 P.E. The existing plant is considered sufficient to cater for wastewater loads up to 2020. The proposed additional upgrade of the WWTP to 18,000 P.E. is not included on Irish Water's Draft Capital Investment Programme 2014-2016 and such works will not commence prior to 2018. The requirement and provision for any further upgrades will be reviewed and considered by Irish Water when planning any subsequent Capital Investment Programme (Source: Irish Water to EPA 14/08/2014).

An Appropriate Assessment Screening for the Ballinasloe Agglomeration was undertaken by Irish Water (in relation to Waste Water Certificate of Authorisation: D0032-01). The AA Screening Report concludes that neither as a result of the Ballinasloe WWTP discharge or in-combination with other sources (diffuse agricultural run-off), are significant adverse impacts anticipated for the River Suck Callows SPA or downstream receiving Natura 2000 Sites (Source: Irish Water AA Screening for the Ballinasloe Waste Water Certificate of Authorisation: D0032-01; submitted to EPA 14/08/2014 and GCC Water Services Section). The EPA's biological water quality analysis of the River Suck also found "Good Status" at two monitory stations downstream of Ballinasloe's WwTP's discharge point, an improvement on the "Poor Status" upstream of the plant. The report also stated that the dilutional and assimilative capacity of the River Suck will ensure that potential adverse effects from the Ballinasloe WwTP's discharge on the Natura 2000 sites are avoided. The upstream monitoring results indicate that the River Suck is already

being impacted prior to the WwTP discharge. The likely source of this impact is diffuse pollution from agriculture. This monitoring data also demonstrates that the water quality within the River Suck is in compliance with Schedule 5 of the European Communities Environmental Objectives (Surface Water) Regulations 2009(S.I No.272 of 2009). The AA Screening Report concludes that neither as a result of the Ballinasloe WwTP discharge or in combination with other sources (diffuse agriculture run-off) are significant adverse impacts anticipated for the River Suck Callows SPA or downstream receiving Natura 2000 sites(Source Irish Water AA Screening for the Ballinasloe Waste Water Certificate of Authorisation: DS0032-01;submitted to EPA 14-8-2014).

The private sewerage works (primary treatment GCC Discharge Licence W 005/78) located in the Portnick area will be connected to the foul sewer network and treatment system. Any new development within the grounds of the former St Brigid's hospital (30 P.E) will be required to link up with Galway County Council network. Figure 3.28 illustrates the Natura 2000 sites within 15km of the plan boundary.

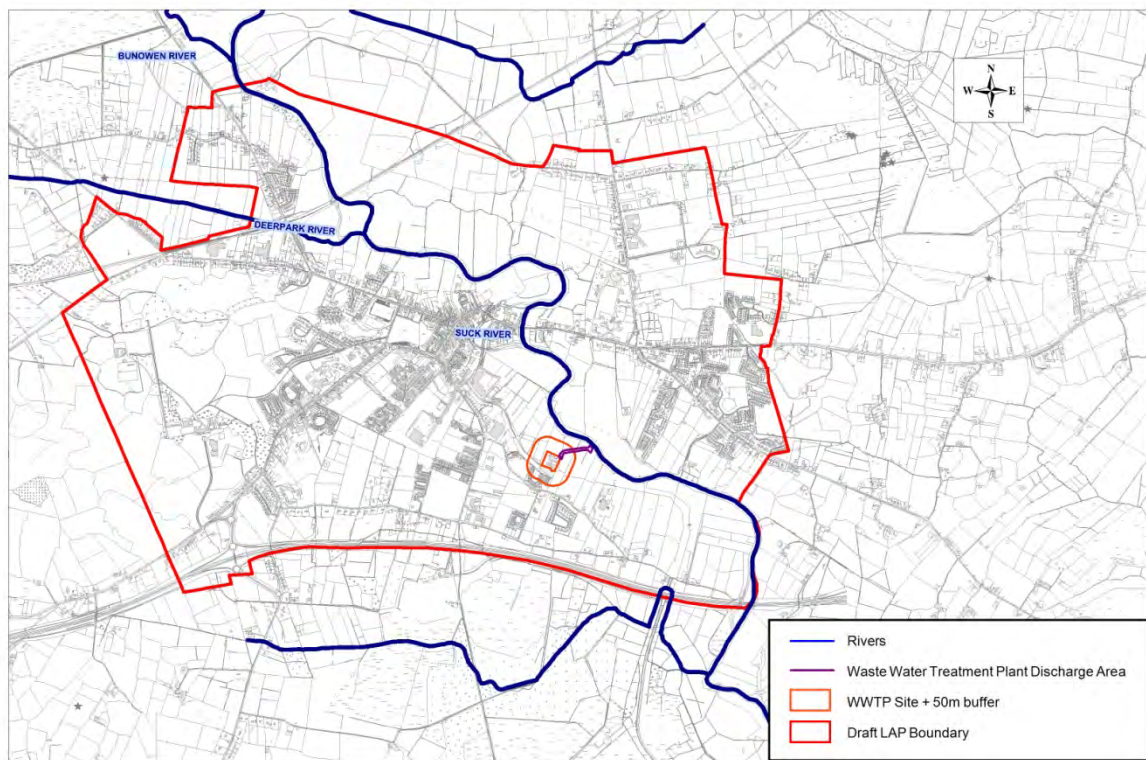


Figure 3.27 Public Wastewater Treatment Plant and Outfall. (Source GCC).

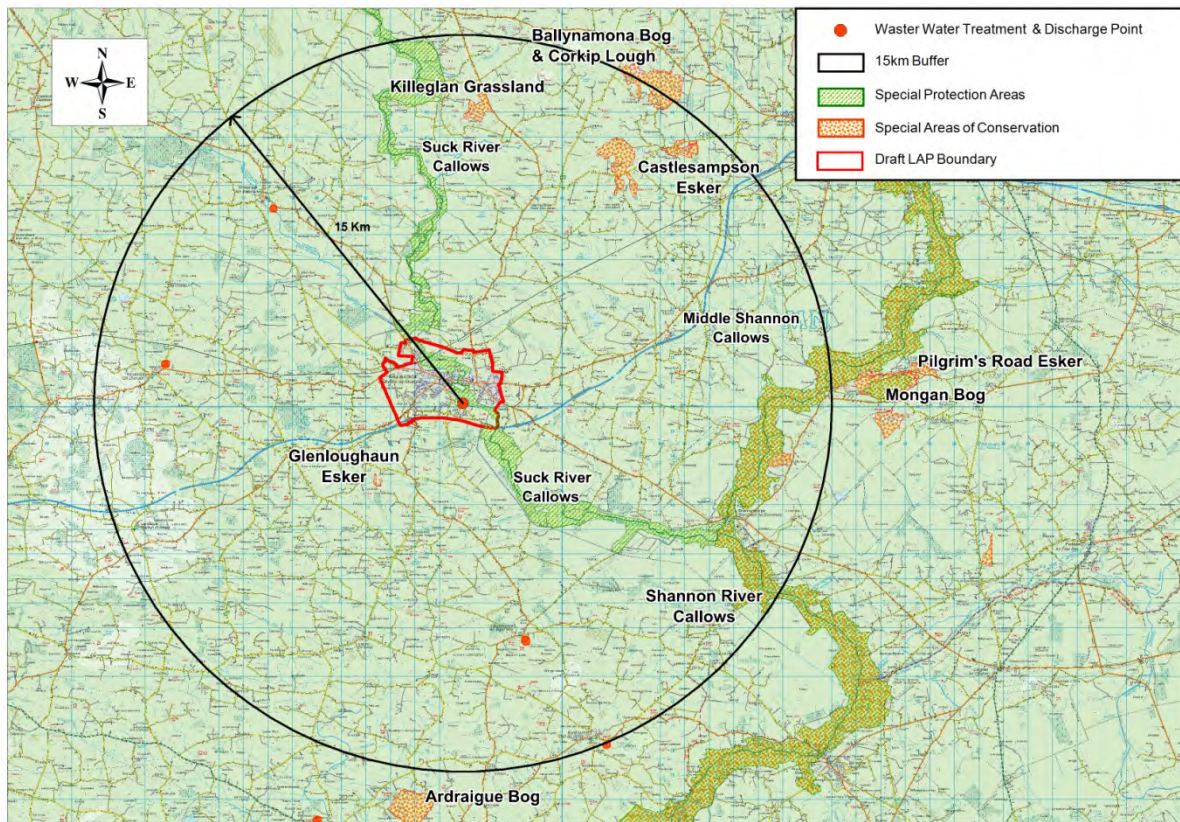


Figure 3.28 Public Wastewater treatment plant and Natura 2000 Sites within 15Km (Source GCC).

3.9.3 Sludge Management Plan

The Galway City Council & County Council Operational Sludge Management Plan was adopted in January, 2011. The objectives of the plan are to:

- Identify sources of sludge;
- Estimate rates for sludge production and final destinations for sludge;
- Recommend sustainable options for the management of non-hazardous sludge.

The provision of all new sewerage treatment plants will include works for dealing with any sludge arising from treatment, in accordance with the Sludge Management Plan.

3.9.4 Surface Water Drainage

There is no dedicated surface water sewer network serving Ballinasloe. Under the Ballinasloe Town Enhancement Scheme some separation will take place from the combined surface and foul sewerage system along a number of streets as proposed under Contracts 1 & 2. The timing of these contracts is dependent on the approval process from Irish Water.

Developments within the plan area will be required to comply with the Sustainable Drainage Systems (SuDs) as contained within the EPA document entitled *Guidance on Authorisation of Discharges to Groundwater 2011 (or any updated/superseding document)*.

3.9.5 Drinking Water Supply, Capacity and Demand

The availability of a water supply of sufficient quality and quantity is essential for public health and the sustainable economic growth of Ballinasloe town. Similarly water conservation is also essential to prevent the unnecessary loss of this precious resource. The primary source of Ballinasloe's public water supply is the Derrymullen Water Treatment Plant which sources water from the River Suck upstream of the town.

There are three reservoirs serving Ballinasloe Town and the surrounding areas. These are located at Garbally, Redmount Hill, and Sheepwalk.

The current capacity of the town's water supply at Derrymullen is 4,500m³/day and the current demand is 3,300m³/day. Ongoing water conservation works have increased the potential capacity of the plant and in addition works under the Ballinasloe Town Enhancement Scheme under Contracts 1 & 2 will provide for public water-main replacement along a number of streets. Recent analysis taken in August 2014 indicates that the water samples continue to comply with the drinking water regulations (S.I. 122 of 2014 (Source: GCC Water Services Section). The Drinking Water Network can be seen on the map below Figure 3.29. The *Ballinasloe Regional Water Supply Scheme (RWSS)* is listed under the *Irish Water Capital Investment Plan 2014-2016* proposed for County Galway and will provide a link from Ballinasloe to Ahascragh and will supply Ahascragh with Ballinasloe water.

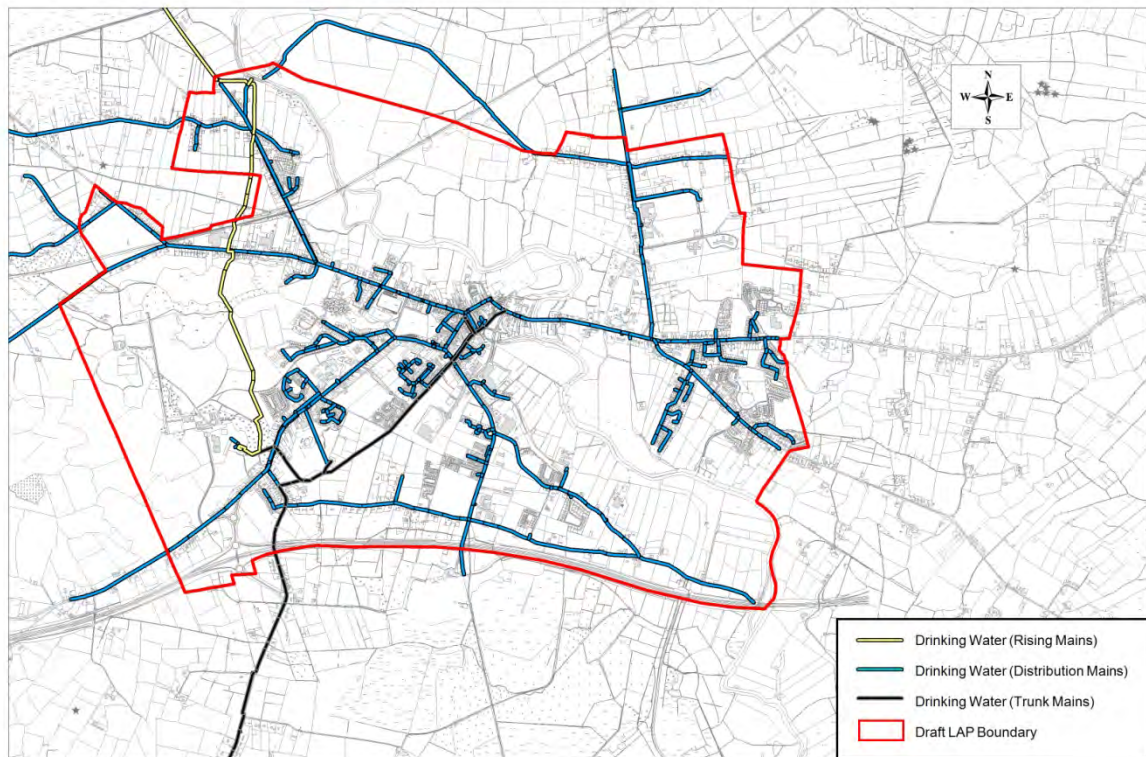


Figure 3.29 The Drinking Water Network within the plan area. (Source GCC).

3.9.6 Drinking Water Quality

Compliance with the drinking water requirement is determined by comparing the results of analysis 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.

The most recent EPA Drinking Water Report 2013 (published January 2015) identifies 12 water supplies that are in need of improvement including the Ballinasloe RWSS (not part of the town public water supply) which had elevated levels of THMs above the standard in the Drinking Water Regulations. The proposed programme of action indicated by the EPA involved the upgrading of disinfection and to provide chlorine and turbidity monitors and pH correction.

The current water supply will not impose limitations on the capacity to serve future developments in the town if it occurs within the predicted growth targets over the plan period. The existing plant has the capacity to cater for any increased demands that might arise during the life of the Ballinasloe Local Area Plan. The Shannon International River Basin District Management Plan provides for the protection of various water bodies that are used for drinking water purposes and listed under the WFD Register of Protected Areas.

3.9.7 Waste Management

The Replacement Connaught Waste Management Plan 2006-2011 provides policy guidance on waste management in County Galway. Best practice in terms of waste management recommends that as much waste as possible is dealt with through reduction, reuse and recycling, with as little as possible remaining to be disposed of to landfill.

A landfill site is located just outside the plan area at Pollboy. The landfill closed in December 2005 and is currently being managed in accordance with the EPA licence issued for the site.

There are five bring banks located throughout the town at a number of locations and there is a recycling facility at Pollboy.

3.9.8 Transport

In the *Galway County Development Plan*, Ballinasloe has been identified as the County Town. One of the strategic aims within the planning area is a move towards a more sustainable and integrated concept of development with regard to land use, transportation, water services and energy supply. The spatial/settlement strategy focused development in Tuam Hub Town and key towns and villages along strategic development corridors emerging along the new transportation infrastructure (road and rail) as recommended in the *Galway Transportation and Planning Study (GTPS 1999, 2003)*.

3.9.8.1 Vehicular Circulation

The strategic geographical location of Ballinasloe makes it accessible to most major towns and tourist attractions in Connacht. The town occupies a strategic location adjacent to the M6 National Primary route linking Dublin and Galway and is one of the principal 'Gateways to the West'. A number of regional roads (R446, R348, R357, R355 & R358) and local roads also converge in the town. These roads link Ballinasloe with a number of towns and villages, such as Tuam, Kilconnell, Laurencetown, Ahascragh, Athlone, Tullamore and Portumna. Ballinasloe is situated approximately 30.5km (19miles) west of Athlone and 67.5km (42miles) east of Galway and has daily public transport services (both rail and bus) to Galway, Athlone and Dublin and these services present the opportunity to commute to work to these destinations. Ballinasloe Railway Station is located on the Galway to Dublin line, approximately 1.3km to the northwest of the Town Centre at Deerpark. The present location for the bus stop is at the public marina. Ballinasloe is also located on the eastern aspect of one of the County's Strategic Development Corridors which are marked for coordinated and appropriate development. It is an objective of the *Galway County Development Plan* to investigate the potential for the development of integrated transportation hubs within a number of towns including Ballinasloe. The emphasis shall be on the provision of bus facilities adjacent to rail stations, where appropriate.

3.9.9 Energy/Renewable Energy and Telecommunications Infrastructure

Developments require adequate power, energy and telecommunications services, including electricity, gas supply, telephone services and broadband, which are provided by a number of different service providers. Ballinasloe is served by Eircom and a number of mobile telecommunications operators.

The Ballinasloe Metropolitan Area Broadband Network (MANS) is fully constructed and is routed mainly around the town centre. It serves the IDA site and HSE facilities along the R357, industrial lands at Pollboy, educational facilities and along the R446 servicing Garbally College, Portiuncla Hospital and the Dunlo area.

3.9.10 Licensed Facilities

3.9.10.1 IPPC Licensed Facilities

There are currently no licenced IPPC Facilities in operation in the plan area. The EPA revoked the licence for the Premier Proteins (2000) Limited Facility in 2012. There is no longer any discharge from Premier Proteins to the River Suck. Figure 3.30 maps the location of this facility.

3.9.10.2 Waste Licensed Facilities

There are currently no waste licenced facilities in the plan area. There was a landfill facility at Pollboy, however this facility has not been in operation for a number of years. A recycling facility is currently in operation at this location. The disused landfill facility needs to be monitored over time to ensure that the facility is not having an adverse impact on the environment. It should be noted that there are no private wells within 500m of the facility boundary. The houses to the north of the site are served by the Ballinasloe town water supply while the houses to the south of the site are served by Clontuskert Group Water Scheme. Figure 3.30 maps the location of this facility.

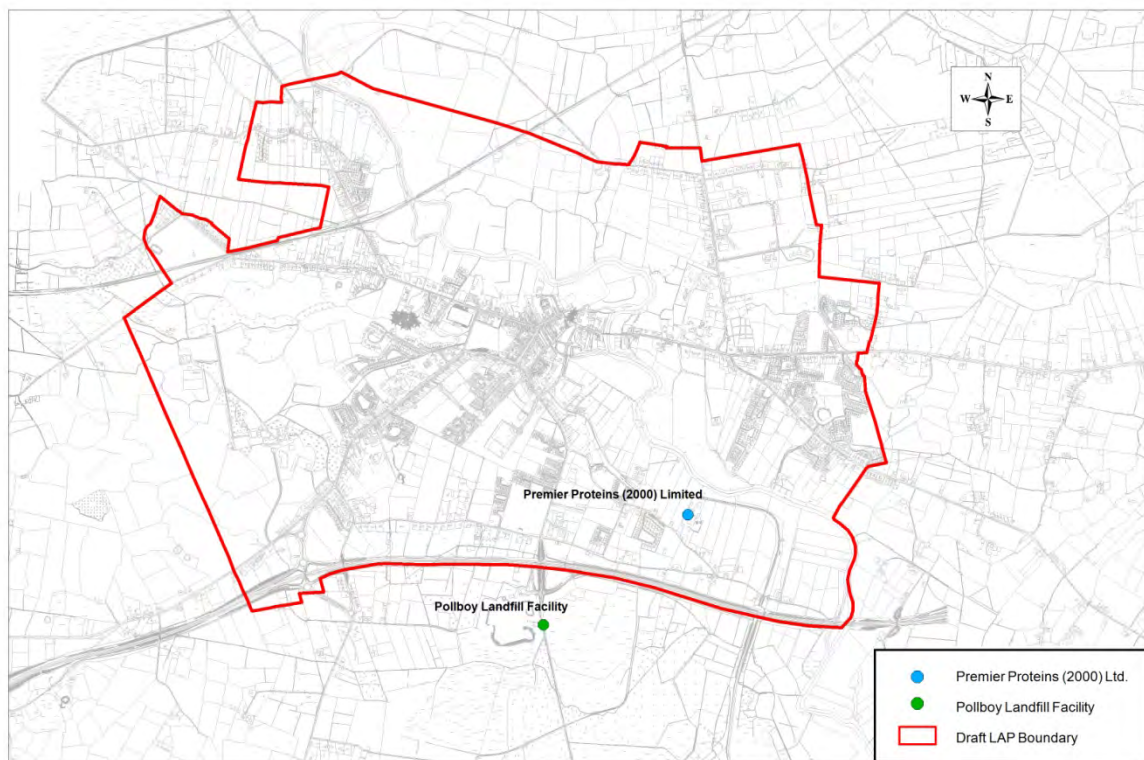


Figure 3.30 Location of EPA Licensed Facilities. (Source: GCC & WFD)

3.9.11 Existing Problems

- Certain regions of the plan area are not within the catchment of the waste water treatment network and consequently developments in these areas use septic tanks to treat waste water arising;
- The main impacts on the River Suck are the Ballinasloe WWTP, private licenced treatment plants and agricultural run-off.

3.9.12 Evolution of Material Assets in the absence of a Local Area Plan

The current legislation which provides for the protection and enhancement of water resources and quality at European, National, Regional and County level will protect and maintain existing water bodies in the

plan area. However, in the absence of a local area plan there would be no planning framework to regulate, and control development in accordance with specific local issues in relation to potable water, wastewater treatment, flooding and development.

3.9.13 Inter-relationships with Other Environmental Parameters

The environmental parameter material assets (wastewater, drinking water, waste management & transport) all have inter-relationships with the other environmental parameters. It is essential that there are an adequate and sufficient waste water treatment system and quality drinking water for the residents of the plan area. The transport infrastructure is centrally linked with a number of environmental parameters, it has a direct threat to local biodiversity, flora and fauna but it also improves the quality of life for the local residents.

	B	PHH	SG	W	AC	CH	L
Material Assets	✓	✓	✓	✓	✓	✓	✓

(B=Biodiversity, Flora & Fauna, PHH=Population, Human Health, SG=Soil & Geology, W=Water, AC=Air & Climatic Factors, CH=Cultural Heritage, L=Landscape).

3.10 Cultural Heritage

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

3.10.1 Archaeological Heritage

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 associated underwater features.

3.10.2 Record of Monuments and Places

Ballinasloe'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. In Ballinasloe, there are currently 54 entries to the Record of Monuments and Places (RMP). These are mapped on Figure 3.31.

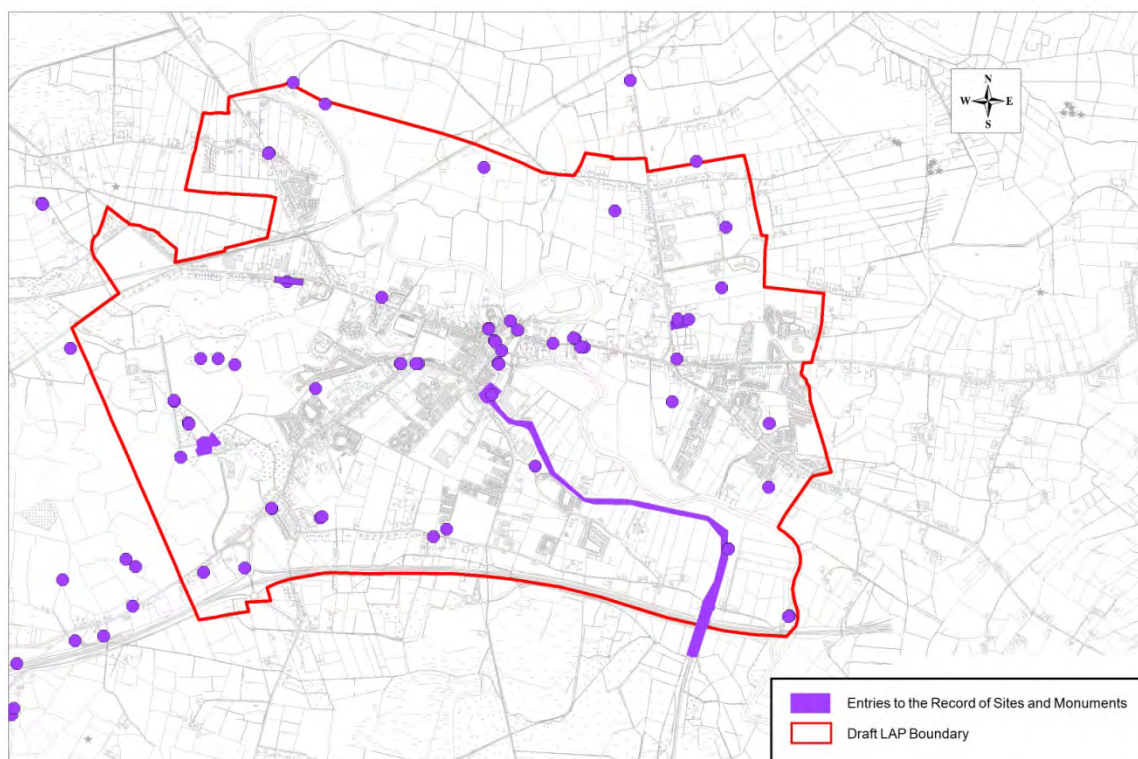


Figure 3.31 Entries to the Record of Monuments and Places. (Source: GCC & DAHG Archeological Constraints Map: www.archaeology.ie).

3.10.3 Architectural Heritage

The existing urban form of Ballinasloe was established by the Trench Family in the late 18th and early 19th century with the development of the broad pattern of streets lined with substantial three storey buildings, St. Michael's Square and the Fair Green.

3.10.4 Record of Protected Structures

The Record of Protected Structures (RPS) is legislated under Section 12 and Section 51 of the Planning and Development Act 2000 (as amended). There are currently 118 Protected Structures within the plan area. These structures include many houses from the Georgian and Victoria periods. Of note are two of the churches within the town, the church to the east of the Fair Green is a protected structure of national importance while the church at St. Michael's Square is a protected structure of international importance.

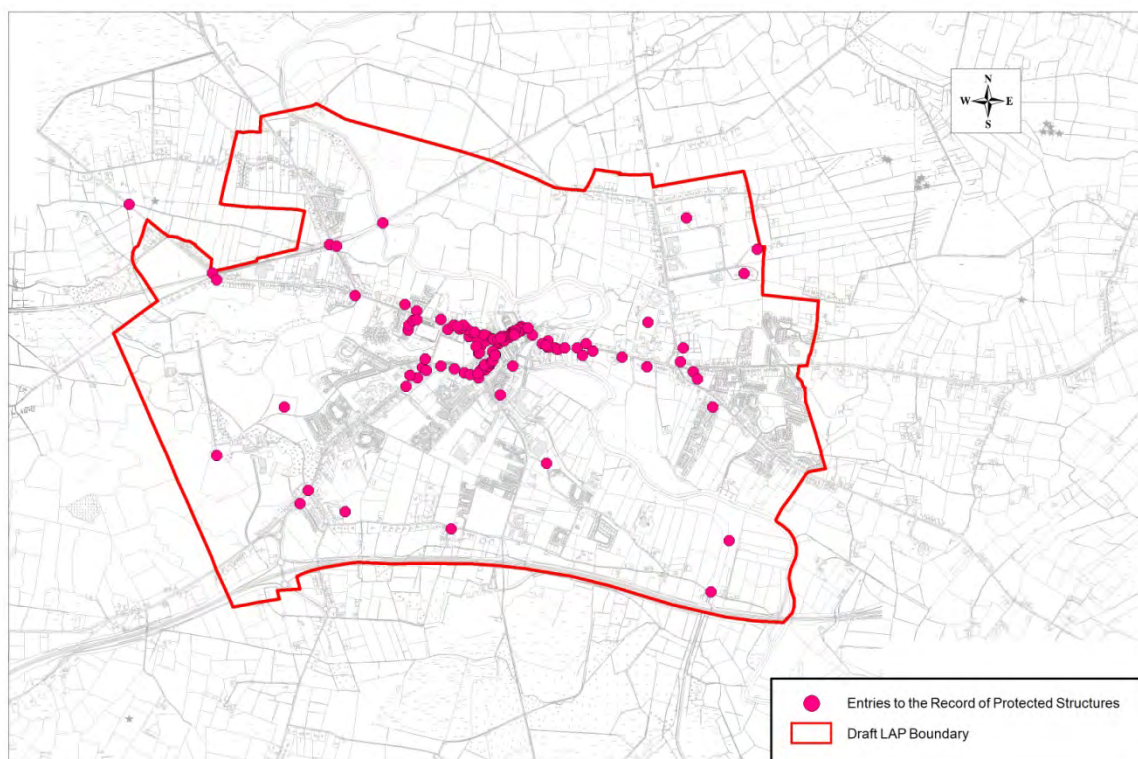


Figure 3.32 Current Entries to the Record of Protected Structures. (Source: GCC)

3.10.5 Architectural Conservation Areas

There are currently two Architectural Conservation Areas (ACAs) within the plan area, namely Ballinasloe Town Centre and St. Brigid's Hospital.

Ballinasloe Town Centre

Ballinasloe town centre's principal significance lies in the combination of its planned, formal street pattern, laid out by the Trench family, its plot sizes, architectural coherence, and distinctive landmark buildings. The imposing main streets have large three storey buildings with important traditional architectural features such as; cut stone sills, window and door surrounds and slate roofs. The large chimney stacks make a significant contribution to the roofscape of the town. One of the most attractive characteristic, of the houses on the main streets, is the Diocletian windows to the upper floors. The ground floors of many buildings still retain traditional shop fronts. The narrow streets rising to St. John's Church of Ireland, a major land mark in the town, form a tighter urban grain with great charm and many houses of vernacular style, displaying classically derived features, such as decorative fan lights. The Roman Catholic Church of St. Michael is a balancing landmark, situated as it is at the focus of St. Michael's Square. Society Street at its western end has a variety of institutional school buildings, developed around the Convent of Mercy. The Courthouse is a fine cut stone building. The opposite side of the Fair Green, and on a height overlooking it, has the Church of Ireland parish hall, and the Le Poer Trench Memorial. The Fair Green contributes hugely to Ballinasloe's special character, being the focus of the annual horse fair in October. On its western side, is the former entrance to the landlord's house, framed by twin lodge houses. The public realm in the town also retains some limestone kerbing. Ballinasloe contains a generous number of buildings of regional or national significance, which together with the characteristic buildings of the town, its distinctive form, shaped by its history, and its setting close to the River Suck give it its special character.

St. Bridgid's Hospital

St. Bridgid's special significance derives from the architectural quality of the main building, designed by Francis Johnston, and dated 1832. It is a classical style group of mental hospital buildings on an X-plan two-storey block with a cupola surmounting the entrance bay. Smaller scale two-storey buildings are attached, with pavilions at the ends. A detached single-cell chapel in the grounds, with later ancillary buildings through the extensive grounds, demonstrates the continuous use of the complex as a health facility over a long period of time, with the subsequent changes in developing practice. The tripartite entrance gateway with original cast and wrought ironwork is a significant landmark to the eastern approach to the town of Ballinasloe. The complex is of national value because of its special architectural quality as exemplified by its composition, plan and degree of craftsmanship in construction. In addition, it is a work by one of the most respected architects of the period and one of the earliest of its type.

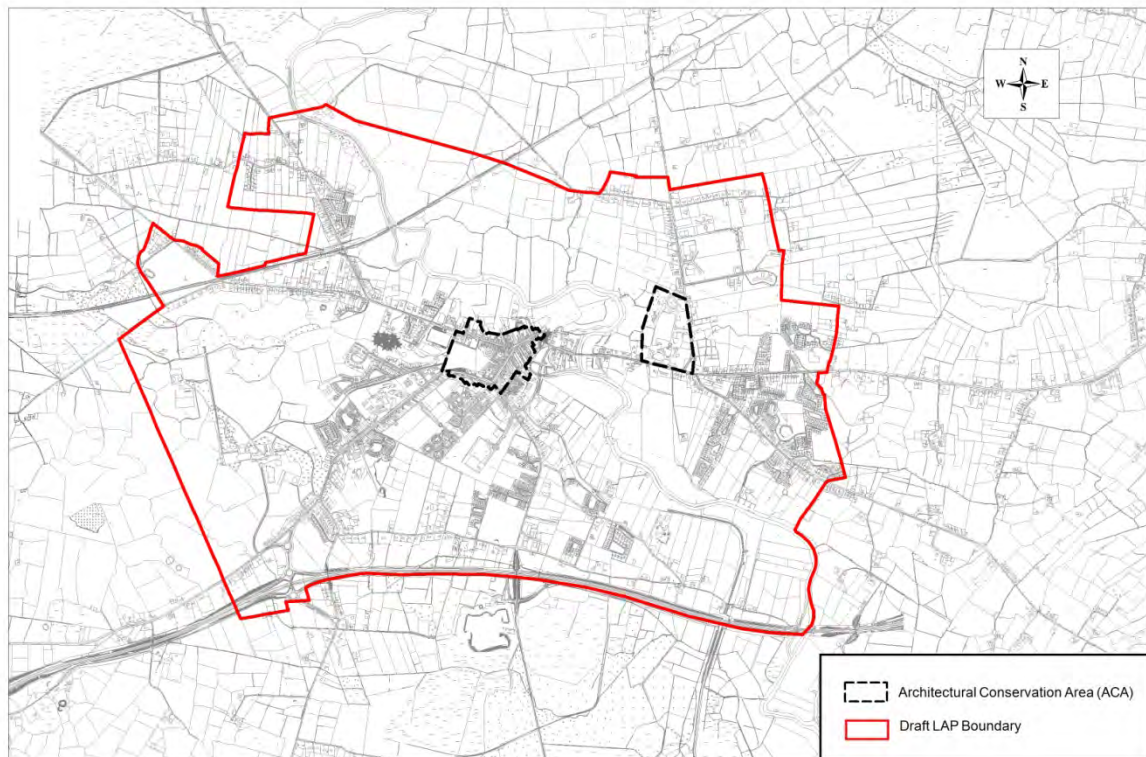


Figure 3.33 Architectural Conservation Areas (ACA). (Source GCC)

3.10.6 Existing Problems

- Developments within archaeologically or architecturally sensitive areas have the potential to individually or cumulatively impact upon 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;
- 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 have a significant adverse impact upon cultural

heritage both archaeological and architectural if unmitigated against.

3.10.7 Evolution of Cultural Heritage in the absence of a Local Area Plan

Ballinasloe has a significant assembly of cultural heritage and extensive and effective legislation and guidance from international and national level affording both the architectural or archeological elements a high level of protection. However, in the absence of a Local Area Plan there may not be a framework within which to regulate aid or control development which may lead to uncontrolled development resulting in losses and or deterioration in the cultural assets of the plan area. The cultural heritage of the plan area would suffer due to insufficient monitoring and guidance.

3.10.8 Inter-relationships with other Environmental Parameters

The environmental parameter cultural heritage has an inter-relationship with the other key environmental parameters.

	B	PHH	SG	W	AC	M*	L
Cultural Heritage	✓	✓	✓	✓	✓	✓	✓

** In relation to Material Assets as this encompasses a wide spectrum of categories it is considered that the inter-relationship with water, wastewater and waste management would be regarded as minimal however there would be a relationship with transport infrastructure.*

(B=Biodiversity, Flora & Fauna, PHH=Population, Human Health, SG=Soil & Geology, W=Water, AC=Air & Climatic Factors, M=Material Assets, CH=Cultural Heritage, L=Landscape).

3.11 Landscape

Landscapes are areas which are perceived by people and are made up of a number of layers: landform, which results from geological and geo-morphological 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. Ballinasloe's undulating landscape has been shaped primarily by the impact of glacial activity and the deposition of eskers. The River Suck which bisects the Town has also played a key role in shaping the development of the town.

3.11.1 Landscape Character Assessment¹³

In accordance with the DEHLG's Landscape and Landscape Assessment Guidelines (2000), Galway County Council prepared a Landscape Character Assessment (LCA) for the County in 2003. It classifies landscapes according to their:

- Character;
- Values; and,
- Sensitivity.

It is noted that, although the LCA was undertaken at a county level and its applicability is reduced at local levels, the content of the LCA provides useful information for this environmental assessment of the plan area.

3.11.2 Landscape Character Areas

Landscape character is a combination of landform, land cover and visual units, which are attractive in the landscape. The LCA identified 25 character areas within the county. The character areas relating to the plan area are mapped in Figure 3.34.

- **Area 1: North East Galway (Ballinasloe to Ballymoe)**

The landscape is flat to undulating and open pastoral land is bound by field hedgerows, with small

¹³ Text in this section is sourced from the Galway Landscape Character Assessment (Galway County Council, 2003)

scattered coniferous plantations of 1-6 km² in size. There are no areas of particular scenic value. This area is primarily rural and includes the settlements of Ballinasloe, Mountbellew Bridge, Glennamaddy, Ballymoe and Dunmore. This character area covers the north of the plan area.

- **Area 2: Shannon and Suck River Valley between Portumna and Ballinasloe**

The landscape of the river valley is flat, bordered by deciduous trees and water-edge planting. Also along the riverbank are recreational facilities for fishing, bird watching and boating. There are local scenic views along the river and to the local heritage sites. Long distant views are to the Aughty Mountains. This character area covers lands in the east of the plan area.

- **Area 3: East central Galway (Athenry, Ballinasloe to Portumna)**

The landscape is flat, coarse grassland, with occasional clumps of coniferous forestry between 1-3 km² in size and fields defined principally by stone walls. There are no areas of particular scenic value, although the stone walls are quite distinct. This classification covers the remaining lands in the plan area.

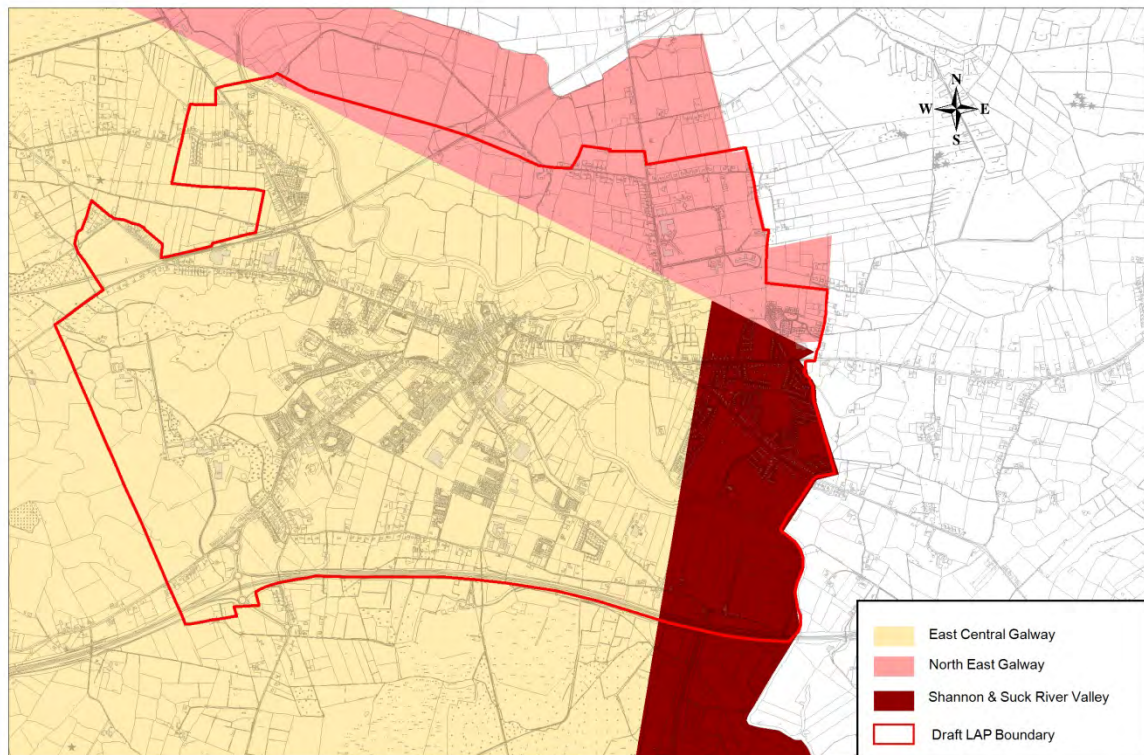


Figure 3.34 Landscape Character Area. (Source Landscape Character Assessment 2003, GCC)

3.11.3 Landscape Values

The LCA derived landscape values were derived for each landscape character area by consideration of environmental and cultural benefits such as visual beauty, ecology, archaeology, social history, religious sites and mythology. The values were given a score ranging from low to medium to high to outstanding. The east of the plan area - including the town centre and Suck river callows - is classified as being of a moderate value, while the west of the plan area is designated as being of a low value. Landscape values are mapped on Figure 3.35.

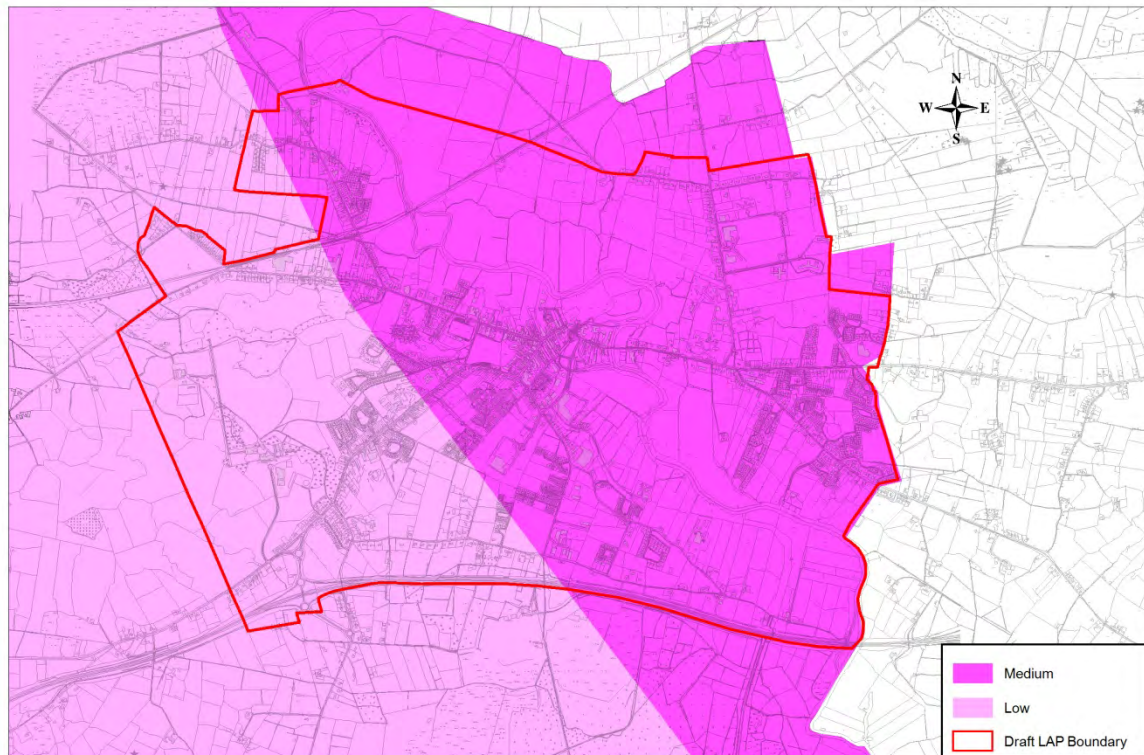


Figure 3.35 Landscape Values. (Source Landscape Character Assessment 2003. (Source GCC)

3.11.4 Landscape Sensitivity Classes

Landscape sensitivity is a measure of the ability of the landscape to accommodate change or intervention without suffering unacceptable effects to its character and values. Sensitivity ratings are derived from a combination of landscape values and landscape character.

The following five sensitivity classes were established by the LCA:

- Class 1 – Low sensitivity;
- Class 2 – Moderate sensitivity;
- Class 3 – High sensitivity;
- Class 4 – Special; and,
- Class 5 – Unique.

These sensitivity classifications - together with visually sensitive ridges are mapped on Figure 3.36.

The callows of the Suck River and the Ballinasloe esker are both classified as having a high sensitivity these landscapes are most vulnerable to change. The remainder of the east of the plan area including the town centre is classified as being of a moderate sensitivity while the remainder of the west of the plan area is designated as being of a low sensitivity. Figure 3.36 illustrates the landscape sensitivities within the plan area.

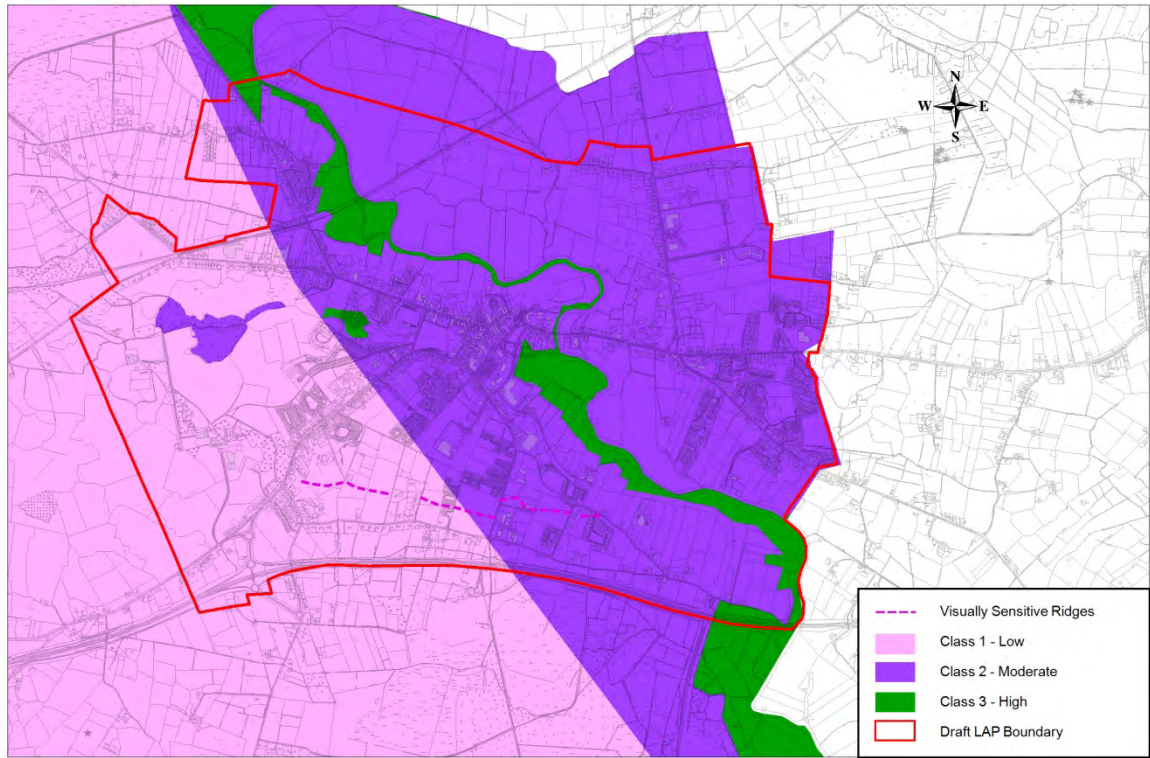


Figure 3.36 Landscape Sensitivities and Visually Sensitive Ridges. (Source: GCC)

3.11.5 Focal Points and Views

There are a number of views proposed to be listed in the local area plan and identified below. The views identified in the map relate to the following:

- To the high and special amenity of the River Suck and surrounds;
- To the open character of St Michael's Square (including its focus St Michael's Church);
- The Fair Green and the Le Poer Trench Memorial;
- The narrow streets rising to St John's Church of Ireland a major landmark of the town;
- Vistas as indicated within Garbally Demesne;
- Vistas from the Public Marina;
- Vistas at the junction of Creagh Church and graveyard.

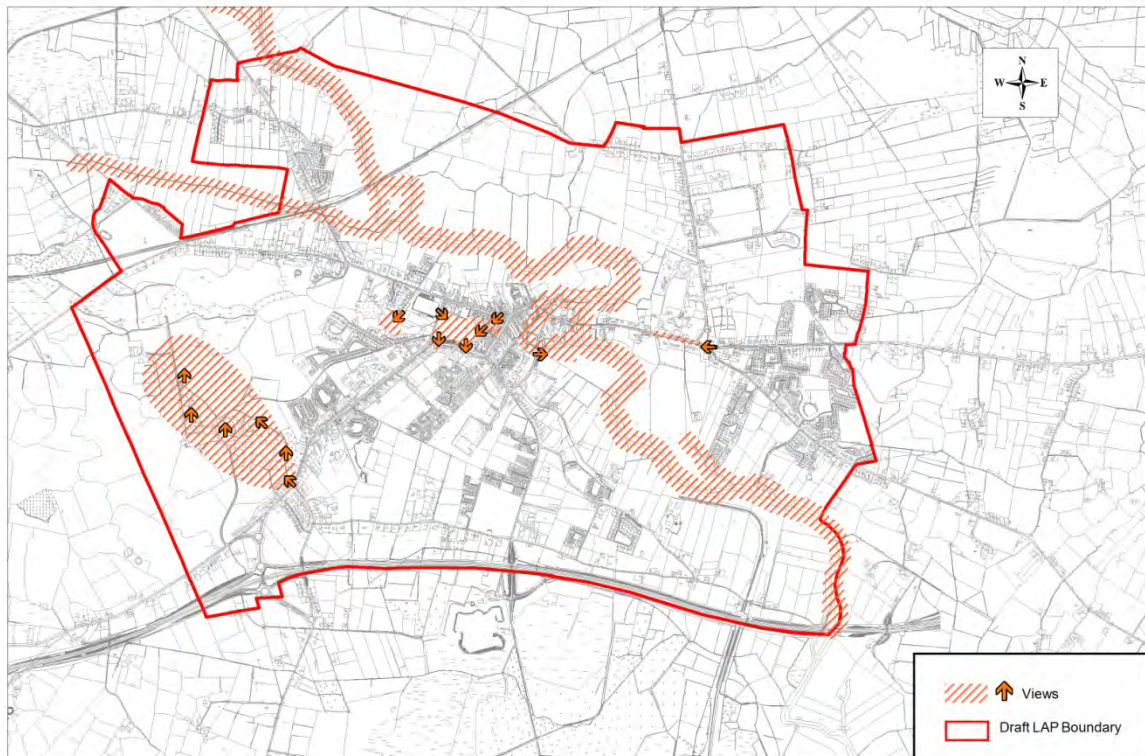


Figure 3.37 Views (Source: GCC)

3.11.6 Existing Problems

The intrusion onto greenfield sites for development can have a significant effect on the landscape and local landscape features in rural and urban areas.

A problem with regard to the environmental component of landscape is the cumulative visual impact which occurs as a result of developments such as one off houses. Such developments, which individually often do not have significant adverse impacts, have the potential to cumulatively and adversely have a significant impact upon sensitive landscapes. In the context of Ballinasloe, this type of development has the potential to occur within the peri-urban areas including the outskirts of the town boundary, but could pose a potential impact on the proposed protected focal views which occur throughout Ballinasloe.

3.11.7 Evolution of Landscape in the absence of a Local Area Plan

In the absence of the Local Area Plan there would be no framework within which to regulate and manage future developments. A lack of development objectives would lead to uncontrolled developments with no framework to identify specific locations for developments. Development would occur on an ad-hoc

basis which would have a cumulative impact on the landscape and development pressures would invariably be on a number of specific locations. The Local Area Plan will include objectives that provide for the preservation, protection and enhancement of the landscape as part of an integrated sustainable approach to future development within the plan area. In the absence of a plan, this would remove this protection and enhancement measures for the landscape, potentially leading to its fragmentation, loss and deterioration.

3.11.8 Inter-relationships with Other Environmental Parameters

The environmental parameter landscape has an inter-relationship with the other key environmental parameters. The landscape in which we live in inter-relates all facets of the environment, including human health and quality of life. It also impacts on the biodiversity, flora and fauna and water quality.

	B	PHH	SG	W	AC	M	CH
Landscape	✓	✓	✓	✓	✓	✓	✓

(B=Biodiversity, Flora & Fauna, PHH=Population, Human Health, SG=Soil & Geology, W=Water, AC=Air & Climatic Factors M=Material Assets, CH=Cultural Heritage, L=Landscape).

3.12 Overlay of Environmental Sensitivities of the Plan Area

In order to identify where the most sensitivities within the plan area occur, a number of the environmental sensitivities described in this section were weighed and mapped overlapping each other. Figure 3.38 provides an overlay of environmental sensitivities in the Ballinasloe area. By mapping key environmental layers (GIS) to produce an environmental sensitivities map, it provides a visual impression which can assist in identifying which areas within the plan area experience environmental sensitivities, the highest concentration(i.e indicates the level of overlap) of environmental sensitivities and consequently the areas potentially most vulnerable to potential environmental impacts from development. The physical extent of the environmental sensitivity extends beyond the defined area on the map, as the potential impact can be generated at a location outside of the plan area. Environmental sensitivities are indicated by colours which range from extreme vulnerability, high vulnerability, elevated vulnerability, moderate vulnerability and low vulnerability. 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.

The map effectively reflects where the key concentrations of sensitivity are situated within the plan area. These include:

- The River Suck and its Callows are identified as ranging from high, extreme to acute vulnerability;
- Most of the plan area is identified as being low to moderate vulnerability;
- Areas to the south east of the plan area are regarded as more vulnerable.

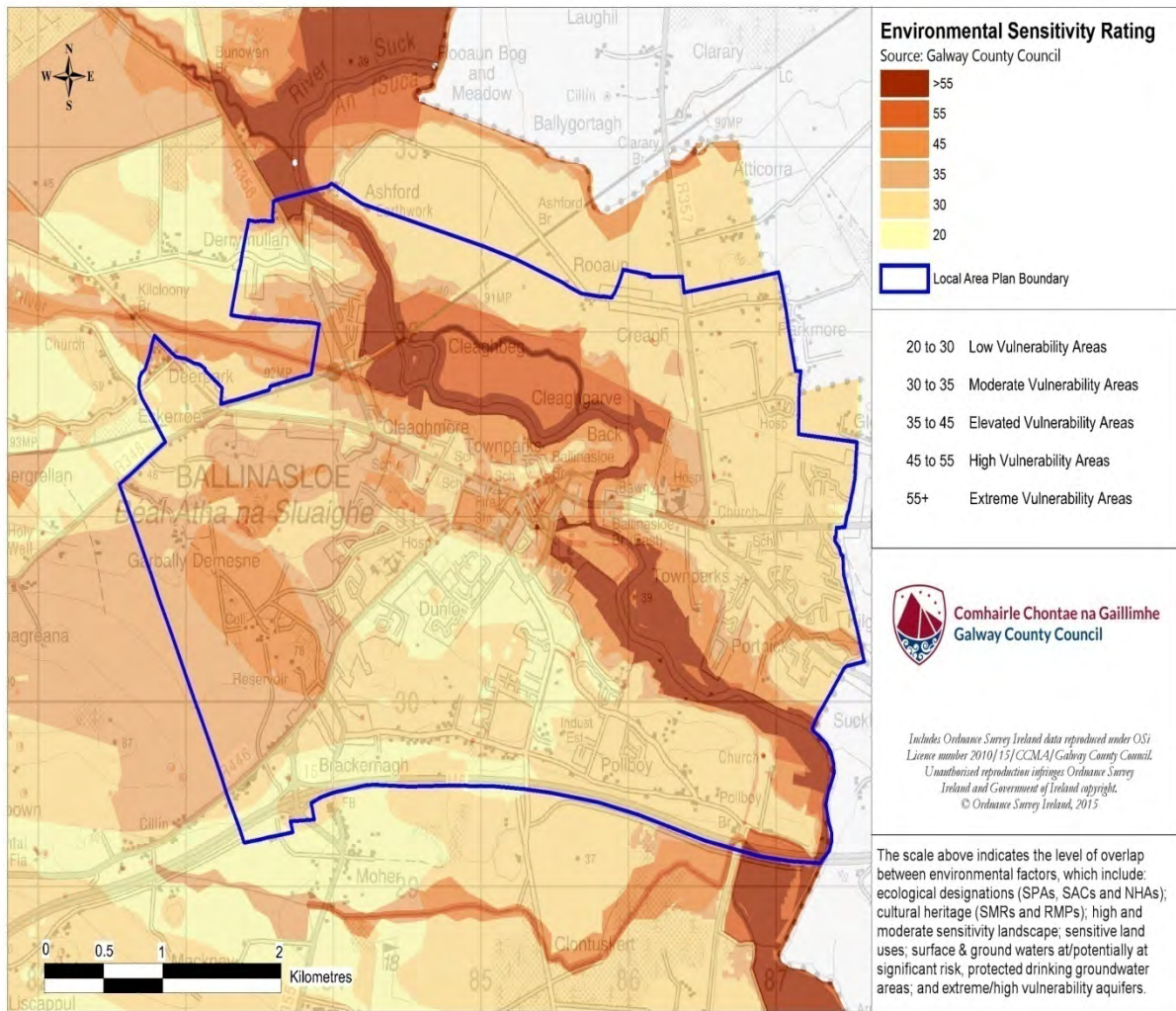


Figure 3.38 Overlay of Environmental Sensitivities (Source GCC)

Section 4 Review of Relevant Policies, Plans and Programmes

4.1 Introduction

The objective of the SEA Directive is

“to provide for a high level of protection of the environment and to contribute to the integration of environmental considerations in the preparation and adoption of plans and programmes with a view to promoting sustainable development”.

In order to meet the requirements of the Directive in this respect, the environmental assessment must,

‘...identify the environmental protection objectives, established at International, Community or Member State level, which are relevant to the plan or programme and the way those objectives and any environmental considerations have been taken into account during its preparation.’

The purpose of this review is to take into consideration the policy and legislative framework within which the Ballinasloe Local Area Plan 2015-2021 is being developed. Consideration has been given to the key statutory and non-statutory plans, programmes and policies relevant to the Local Area Plan in order to inform the SEA Strategic Environmental Objectives and Targets (discussed further in Section 6). It is important in terms of the development of Ballinasloe that the Draft Local Area Plan adheres to policy and strategic options which are pre-determined by higher level plans and guidelines.

A distinction must be made between the different sets of objectives, which have an influence on the preparation of the Draft Ballinasloe Local Area Plan. International and National strategies and policies have a strong role to play in establishing higher level agendas such as climate change, while the Ballinasloe level plan objectives are more specific and localised in their orientation. Additionally, a third set of objectives, i.e. Strategic Environmental Objectives (see Section 6 & 7) must also be taken into account. The following section provides an overview of the key planning policies that are relevant and which influence the Ballinasloe Local Area Plan. This list is comprehensive however it is not exhaustive and will be amended throughout the plan review and the preparation process as new policy, guidance plans programmes etc are adopted.

Appendix II provides details on all key legislation, plans and programmes which are considered most relevant to the Local Area Plan.

4.2 The Key Relevant Planning Policies

The following is a summary of the key relevant policies, plans and programmes in relation to the Ballinasloe Local Area Plan.

4.2.1 Planning and Development Policies

National Development Plan (2007-2013)

The National Development Plan integrates strategic development frameworks for regional, development, for rural communities, for all-island co-operation, and for protection of the environment with common economic and social goals. The National Development Plan together with the National Spatial Strategy and Regional Planning Guidelines must inform the development of Galway through its County Development Plan and associated core strategy, which in turn informs the Ballinasloe Local Area Plan.

National Spatial Strategy (2002-2020)

The National Spatial Strategy (NSS) is a 20 year planning framework to guide policies, programmes and investment in the interest of delivering balanced social, economic and physical development and population growth between the regions. The National Spatial Strategy together with the Regional Planning Guidelines must inform the development of Galway through its County Development Plan and associated core strategy, which in turn informs the Ballinasloe Local Area Plan. The NSS is based on a hierarchy of settlements including gateways, hubs, county towns, smaller towns, rural villages and diverse

rural economies. Within the NSS, Galway is recognised as a 'Gateway' which has a strategic location, nationally and relative to its surrounding areas, and provides national scale social, economic infrastructure and support services. Strategic issues of importance relevant to Ballinasloe include effective integration in terms of land use and transportation and maintaining a high quality environment.

The Regional Planning Guidelines for the West Region 2010 – 2022

These Guidelines cover the area of the West Regional Authority. The Regional Planning Guidelines (RPGs) work to implement the strategic planning framework set out in the National Spatial Strategy (NSS). As part of the planning framework, the Guidelines allocate housing and population targets for the individual counties based on national and regional population targets set by the NSS. The RPGs designate Ballinasloe as a 'County Town'.

Galway County Development Plan

This Plan was prepared in accordance with the requirements and provisions of the Planning and Development Act and sets out an overall strategy for the proper planning and sustainable development of County Galway over the period 2015-2021. This plan is very relevant to Ballinasloe Local Area Plan as it sets out an overall vision, core strategy, policies and objectives for the County. The County Development Plan designates Ballinasloe as the "County Town". As the "County Town" Ballinasloe plays an important role in particular for east Galway and in the delivery of Local Government services. Ballinasloe is a key commercial centre and a large employer for the residents of the town and surrounding hinterland. The town provides higher order important services such as Portiuncula Hospital, one of the largest general and maternity hospitals in the Country.

4.2.2 Environmental Plans and Policies

Habitats (92/43/EEC) and Birds (2009/147/EC) Directives

These directives seek to protect habitats and species which are important at a European level. The Habitats Directive requires Ireland and other EU member states to designate Special Areas of Conservation (SACs) where either one or many Annex I habitats or Annex II species occur while the Birds Directive protects bird species through designation of Special Protection Areas (SPAs). Together, these form the Natura 2000 network of sites. There are a number of Natura 2000 sites within 15km of the Local Area Plan; however the Suck River Callows SPA is located within the plan area. The Local Area Plan must protect this designated site and the habitats and species for which they have been designated (see also the Natura Impact Report for Appropriate Assessment of the Ballinasloe Local Area Plan).

European Communities (Bird and Natural Habitats) Regulations

The European Communities (Bird and Natural Habitats) Regulations 2011 consolidate the European Communities (Natural Habitats) Regulations 1997-2005 and the European Communities (Bird and Natural Habitats) (Controls of Recreational Activities) Regulations 2010, as well as addressing transposition failures identified in the Court of Justice of the European Union (CJEU) judgements.

Galway County Heritage Plan 2010- 2016

This is the second Heritage Plan for County Galway and carries forward the overall aim of the first plan, which is to "place heritage at the heart of the life of the county through increasing awareness, enjoyment, knowledge and understanding of our shared heritage thereby leading to its proper management and protection and safeguarding it for future generations". The aims and objectives of the Draft Ballinasloe Local Area Plan 2015-2021 are consistent with this Plan.

Water Framework Directive (2000/60/EC)

This Directive seeks to maintain and enhance the quality of all surface water and groundwater in the EU. The Directive is focused at the River Basin District (RBD) level to ensure that all potential pathways for pollution can be explored and measures to mitigate negative impacts can be better focused. There are eight RBD's on the island of Ireland and Ballinasloe falls within the Shannon International River Basin District (SIRBD).

River Basin Management Plans and associated programmes of measures have been developed for each region and must be implemented. The Ballinasloe Local Area Plan must have regard to these measures.

The assessment of potential impacts on water quality needs to be considered in the context of the WFD and the River Basin Management Plan and Programme of Measures for the Shannon International River Basin District which lays out the objectives for waters within the area.

Surface Water Regulations (2009)

Aligned to the WFD is the Surface Water Regulations (S.I. 272 of 2009). These Regulations have significant implications across a range of existing legislation. They provide for the classification of surface water bodies by the EPA for the purposes of the Water Framework Directive.

Groundwater Directive (2006/118/EC)

The Directive seeks to prevent and combat groundwater pollution in the EU. It contains key criteria for the assessment of the chemical status of groundwater, for identifying significant upward trends in groundwater pollution levels and for preventing and limiting indirect discharges of pollutants to groundwater. As Ballinasloe have sensitive groundwater habitats in proximity to its administrative boundary the formulation of the Plan should have regard to these objectives.

Environmental Liability Directive (2004/35/EC)

The Directive establishes a framework for environmental liability based on the "polluter pays" principle, with a view to preventing and remedying environmental damage. The principle of liability applies to environmental damage and imminent threat of damage resulting from occupational activities, where it is possible to establish a causal link between the damage and the activity in question.

Floods Directive (2007/60/EC) and Associated CFRAMS

Floods are a natural and inevitable part of life in Ireland. Floods pose a risk to human life and wellbeing, can cause extensive damage to property and have significant consequences for the environment. With the effects of climate change, it is likely that there will be more frequent and severe flooding events in the future. The EU has responded to this with the Floods Directive. This Directive sets a framework for proactive management of flooding and, like the WFD, will see measures being implemented through the development plan process. The first step in this is the development of Catchment Flood Risk Assessment and Management Studies (CFRAMS) which are ongoing, these studies will identify areas susceptible to flooding and identify measures to reduce or eliminate flooding in key areas. However, due to the delay in publishing the final CFRAM maps, the Planning Authority has carried out a Stage 2 Strategic Flood Risk Assessment (SFRA), which forms part of the preparation of the plan.

The Planning System and Flood Risk Management – Guidelines for Planning Authorities 2009 & Circular PL2/2014

These guidelines were published by the Department of Environment, Heritage and Local Government and the Office of Public Works in November 2009. The Guidelines are aimed at ensuring a more consistent, rigorous and systematic approach to fully incorporating flood risk assessment and management into the planning system.

The guidelines will require the planning system at National, Regional and Local levels to:

- Avoid development in areas at risk of flooding, such as floodplains, unless there are wider sustainability grounds that justify appropriate development; and where the flood risk can be reduced or managed to an acceptable level without increasing flood risk elsewhere;
- Adopt a sequential approach to flood risk management and guide development away from areas that have been identified as being at risk through flood risk assessment, in areas of high risk, for example, should see water-compatible developments such as docks and marinas, amenity open space, outdoor sports and recreation, while other more vulnerable development should be directed towards areas of minimal or no flood risk;
- Incorporate flood risk assessment into the process of making decisions on planning applications and planning appeals.

An important context for these Guidelines is the need to adapt to inevitable impacts of climate change. Future impacts are likely to be felt in every sector of the economy and may include both persistent long-term changes and acute short-term events. Increased frequency and magnitude of flooding due to heavier rainfall, sea level rises and storm surges are among the most serious threats for Ireland. These

Guidelines have statutory force under Section 28 of the Planning and Development Act 2000 (as amended) In addition to the Guidelines Circular PL2/2014 was issued by the Department of the Environment, Community & Local Government in August 2014 and relates to areas that are developed but are located in a Flood Risk area. Certain areas of the Draft Ballinasloe Local Area Plan area are susceptible to flooding therefore it is acknowledged that the objectives of the Draft Ballinasloe Local Area Plan will be generally consistent with the Guidelines.

Urban Waste Water Directive (91/271/EEC), amended by Directive (98/15/EEC)

The primary objective is to protect the environment from the adverse effects of discharges of urban wastewater, by the provision of urban wastewater collecting systems (sewerage) and treatment plants for urban centres. The Directive also provides general rules for the sustainable disposal of sludge arising from wastewater treatment. Wastewater arising from the plan area is treated to primary and secondary treatment (with phosphorus removal) at the Ballinasloe Treatment Works at Pollboy. The current treatment plant has a current design capacity of 13,500 population equivalent (P.E) and the current loading is 12100 P.E leaving a spare capacity of 1400 P.E. The existing plant is considered sufficient to cater for wastewater up to 2020.

Drinking Water Directive (80/778/EEC) as amended by (Directive 98/83/EC)

The primary objective is to protect the health of the consumers in the European Union and to make sure drinking water is wholesome and clean. The (Drinking Water) (No. 2) Regulations 2007 (SI No. 278 of 2007) have the following aims:

- To provide for the creation of EPA and local authorities as supervisory authorities;
- To set obligations for water suppliers to provide wholesome and clean drinking water;
- To ensure protection of public health;
- To inform the public; and
- To monitor and carry out remedial action.

The primary source of Ballinasloe's public water supply is the Derrymullen Water Treatment Plant which sources water from the River Suck upstream of the town. The current capacity of the towns water supply at Derrymullen is 4,500m³/day and the current demand is 3,300m³/day. The Local Area Plan must have regard to ensuring adequate and clean water is available for all existing and planned developed within the Town.

Water Services Act (2007) and Irish Water Capital Investment Plan 2014-2016

The Water Services Act provides for provision of water services and gives effect to certain Acts adopted by the institutions of the European Communities. The Act identifies and prioritises national water infrastructure through the Water Services Investment Programme (WSIP). Irish Water is now the regulatory authority implementing the investment and carrying out of infrastructural works. The WSIP works programme presents a balanced national strategic programme of works designed to support the national socio-economic objectives established by government in the National Development Plan and related plans and policies.

Surface Water Regulations (2009)

These Regulations have significant implications across a range of existing legislation. They provide for the classification of surface water bodies by the EPA for the purposes of the Water Framework Directive which dictates that waterbodies are required to achieve Good Status by 2015.

National Climate Change Strategy, 2007-2012

The National Climate Change Strategy 2007-2012 was published in April 2007 and builds on the commitment for sustainable development as set out in *Towards 2016* and the National Development Plan 2007-2013. The Strategy provides a framework for the achievement of reductions in greenhouse gas emissions as an essential step in achieving the targets agreed under the Kyoto Protocol. In broad terms the purpose of the Strategy is to:

- Show clearly the measures by which Ireland will meet its 2008-2012 commitment;

- Show how the measures position us for the post 2012 period, and identify the areas in which further measures are being researched and developed to enable us to meet our 2020 commitment.

The Strategy recognises that, while progress in emissions reductions has been made, significant further advances are required. The objectives of the Draft Ballinasloe Local Area Plan 2015- 2021 are broadly consistent with this Strategy.

National Climate Change Adaptation Framework (DECLG, 2012)

The DECLG is the body responsible for climate change policy in Ireland. The National Climate Change Adaptation Strategy sets out how Ireland is to meet its objectives under the Kyoto Protocol. The Strategy sits within the National Climate Change Adaptation Framework which provides the policy context for the national response to achieving the objectives in a strategic manner. The Framework also requires Local Authorities, relevant agencies and Government Departments to prepare and publish draft adaptation plans by mid-2014. The objectives of the Draft Ballinasloe Local Area Plan 2015-2021 are broadly consistent with this Framework.

County Galway Wind Energy Strategy, 2015-2021

The County Galway Wind Energy Strategy forms part of the Galway County Development Plan 2015 – 2021. The Wind Energy Strategy will facilitate development of wind farms by maximising the wind resource of the county having regard to recent technological advances in turbine design, updated information on wind speeds, proximity and availability to grid connections and to changing energy and grid connection regulations, while minimising any environmental and visual impacts. The objectives of the Draft Ballinasloe Local Area Plan 2015-2021 are consistent with the County Galway Wind Energy Strategy.

European Convention on the Protection of the Archaeological Heritage, 1992 (the ‘Valletta Convention’)

This convention was ratified by Ireland in 1997. It aim is to ‘protect the archaeological heritage as a source of the European collective memory and as an instrument for historical and scientific study’. It requires that appropriate consideration be given to archaeological issues at all stages of the planning and development process.

Architectural Heritage Protection – Guidelines for Planning Authorities 2004

These guidelines were first published by the Department of the Environment, Heritage and Local Government in 2004. They outline the guidelines concerning development objectives for protecting structures, or parts of structures, which are of special architectural, historical, archaeological, artistic, cultural, scientific, social, or technical interest and for preserving the character of architectural conservation areas. These guidelines are issued under Section 28 and Section 52 of the Planning and Development Act 2000 as amended by Section 20 of the Planning and Development Act 2010. It is considered that the policies and objectives of the Draft Ballinasloe Local Area Plan 2015-2021 are broadly consistent with the Guidelines.

Record of Monuments and Places

The Record of Monument and Places (RMP) is a statutory list of all known archaeological monuments provided for in the National Monuments Acts. The RMP consists of a published county by-county set of Ordnance Survey maps on which monuments are marked by a circle and an accompanying book which specifies the type of monuments. The County Council’s objectives with regard to the Record of Monument and Places for County Galway are broadly reflected in the Draft Ballinasloe Local Area Plan 2015- 2021.

European Landscape Convention

This convention was signed and ratified by the Irish Government in March 2002 and came into effect in Ireland in 2004. It aims to promote the protection, management and planning of landscapes. The

Convention outlines specific measures to be implemented namely relating to awareness raising, training and education, identification and assessment, landscape quality objectives and implementation.

Draft Landscape Strategy for Ireland 2014-2024

The Draft National Landscape Strategy for Ireland 2014-2024 (July 2014) seeks to provide a framework for the protection of the many cultural, social, economic and environmental values embedded in the landscape and the relevant elements of the strategy will be integrated as appropriate into the Plan upon its adoption.

Draft Landscape and Landscape Assessment Guidelines 2000

These Guidelines set out a methodology, called Landscape Character Assessment, which Planning Authorities should use to underpin the provisions related to landscape matters in their statutory plans. The Guidelines favour a method of characterisation of the landscape based initially on land cover – trees, vegetation, settlement, water, etc., and landform which results from geological and geomorphological history.

Section 5 Draft Ballinasloe Local Area Plan 2015-2021

5.1 Introduction

Galway County Council has initiated the preparation of a local area land use plan for the Ballinasloe Local Area Plan 2015-2021 in order to ensure that future development is accommodated in a sustainable and planned manner once adopted. The Draft Local Area Plan will replace the current Ballinasloe Town Development Plan 2009-2015 and it is intended to provide for the proper planning and sustainable development for Ballinasloe for duration of six years from the date of which it is adopted, unless amended.

5.2 Draft Ballinasloe Local Area Plan 2015-2021-Context

The Draft Ballinasloe Local Area Plan has been prepared by Galway County Council under the provisions of the Planning and Development Act, 2000(as amended). The Electoral Local Government and Planning and Development Act 2013, has abolished all second tier Town Councils effective from the 2014 Local Elections. As the population of Ballinasloe exceeds 5,000 persons, in accordance with Article 14B of the Planning and Development (Strategic Environmental Assessment) Regulations 2004(S.I 436 OF 2004) (as amended), Galway County Council must prepare an Environmental Report on the likely significant effects on the environment of implementing the local area plan.

The plan will be the guiding statutory document for the proper planning and sustainable development of the plan area. The plan, and any subsequent amendments will remain in place for a period of six years from the date of its adoption, unless otherwise revoked or the preparation of a Local Area Plan is deferred under the provisions of the Act.

The plan has two main purposes, first to provide a framework of acceptable uses within the plan area, defining acceptable forms of development and where they should be directed; and secondly to provide a detailed basis for the promotion and management of development. The objectives set out in the plan accord with the objectives set out in each of the higher tier policy documents. The higher tier documents are contained in Appendix II of this report.

The Local Area Plan sets out the overall strategy for the proper planning and sustainable development of the area and consists of a written statement and plan indicating the development objectives for the plan area. The overall strategy for the plan area is set out in Section 2 of the Ballinasloe Local Area Plan.

Ballinasloe is located on the River Suck upstream of its confluence with the Shannon. The town occupies a strategic location adjacent to the M6 National Primary route linking Dublin and Galway and is one of the principal 'Gateways to the West'. Ballinasloe is situated approximately 30.5km (19miles) west of Athlone and 67.5km (42miles) east of Galway and has daily public transport services (both rail and bus) to Galway, Athlone and Dublin. The area to which the current *Ballinasloe Development Plan 2009-2015* is in excess of 4,000 acres. The current plan area consists of Ballinasloe town and the surrounding countryside.

A large proportion of the plan area could be described as rural. The county border with Roscommon lies just over 1km from the town centre with some developments in the eastern environs of the town lying within County Roscommon. The eastern boundary of the existing plan area is guided by the Roscommon county boundary. The River Suck forms part of the northern boundary and the Kellysgrrove River makes up part of the southern boundary.

Today Ballinasloe is identified as the '*County Town*', in the core strategy of the *Galway County Development Plan* and plays an important role in particular for east Galway and in the delivery of Local Government services. Ballinasloe is a key commercial centre and a large employer for the residents of the town and surrounding hinterland. The town provides higher order important services such as Portiuncula Hospital, one of the largest general and maternity hospitals in the Country. The town is well serviced with educational facilities and spare capacity exists in both primary and second level schools. Ballinasloe hosts a range of industrial/enterprise ventures that are operated by both national and

international companies. The industrial developments are located on the outskirts of the town, to the south, southeast, southwest and northwest. The main enterprise areas are located in the IDA Business and Technology Park and the Ballinasloe Enterprise and Technology Centre which are situated to the northeast of the town centre along the R357.

The current Town Development Plan for the Ballinasloe was subject to a variation in 2011 which introduced a Core Strategy and a phased approach to existing residential zoning. Only lands required to meet the DoEHLG target population was included in phase 1. All other residential lands were included in phase 2. This phasing was a policy response to over-zoning in the original town plan and effectively reduced the quantum of available residential zoned land to only that required by the Core Strategy. The planning rationale behind the zoning of lands for development within the Draft Ballinasloe Local Area Plan includes having regard to:

- The Galway County Development Plan 2015-2021;
- The provisions of Government Guidelines set out under section 28 of the Planning and Development Act 2000, as amended;
- Consultation under Section 20 of the Planning and Development Act 2000, as amended;
- Availability of services;
- Consolidation of the built environment;
- Sequential development;
- Sustainable development;
- The consideration under the Flood Risk Assessment, SEA and HAD processes.

5.3 Structure and Content

The Local Area Plan has been structured into 4 main sections with separate supporting documents:

Section 1	Introduction 1.1 Preamble 1.2 Profile of Ballinasloe 1.3 Local Area Plan 1.4 Plan Structure 1.5 Plan Informants and Considerations
Section 2	Strategic Vision and Development Strategy 2.1 Strategic Vision 2.2 Development Strategy
Section 3	Development Policies, Objectives and Guidelines 3.1 Land Use Management 3.2 Residential Development 3.3 Social and Community Development 3.4 Economic Development 3.5 Transportation Infrastructure 3.6 Utility Infrastructure, Telecommunications and Energy Infrastructure 3.7 Climate Change & Flooding 3.8 Urban Design and Landscape 3.9 Built Heritage and Cultural Heritage 3.10 Natural Heritage and Biodiversity
Section 4	Local Area Plan Maps Map 1A & 1B – Land Use Zoning Map 2A & 2B – Specific Objectives Map 3A & 3B – Flood Risk Management

5.4 Strategic Vision

The Local Area Plan envisages Ballinasloe as a sustainable, self-sufficient, vibrant, socially inclusive and innovative ‘*County Town*’, which maintains its unique attractive character, capitalises on its strengths, in particular public transport, while offering a pleasant and qualitative environment for a growing population, for living, working, doing business, shopping, recreation and tourism, balanced against the need to safeguard and enhance the environmental sensitivities of the area for present and future generations’.

This strategic vision is informed by guiding principles enabling the overall vision to be achieved, these include the following:

- Realising the town’s potential as a ‘*County Town*’ as set out in the current *Galway County Development Plan* and attracting and planning for the population target established in the Core Strategy up to 2021 and beyond;
- Acknowledging that the medium term growth of Ballinasloe should focus on new sustainable communities and adopt a consolidation approach to the zoning of residential lands with sequential development around established consolidated areas;
- Reflecting the needs and aspirations of local communities, businesses and other interested and affected groups, as expressed through the public consultation process;
- Promoting sustainable land use and transport by capitalising on the opportunity presented by the delivery of the M6 Motorway, the railway service so that sustainable travel, including walking and cycling, and integrated land use and transportation become central to the development of new neighbourhoods and the future development of Ballinasloe;
- Maintaining a strong and vibrant town centre that sustains the ability to attract new businesses and meets the retailing and service needs of Ballinasloe and its surrounding hinterland, in addition to offering a pleasant and attractive environment for shopping, business, recreation and living;
- Facilitating the provision of a range of facilities, amenities and supporting services to serve the needs of the town, including educational, recreational, religious, social, community and civic requirements for children, youths, adults and the older persons to serve a growing community;
- Fostering economic development and employment creation by optimising the potential of the town’s strategic location and enhancing Ballinasloe as a place of employment through the provision of a positive and flexible framework for the creation of new employment opportunities;
- Seeking the delivery of the necessary infrastructure to facilitate the future growth and sustainable development of the town;
- Promoting strong community spirit, social inclusion, civic pride and local identity for the town within the broader rural area surrounding Ballinasloe;
- Protecting the natural assets, environment, built heritage and public realm of the town, including its local character and riparian amenity, for the benefit of future generations.

Section 6 Environmental Assessment and Strategic Environmental Objectives

6.1 Introduction

SEA uses a combination of objectives, targets and indicators to predict impacts and describe and monitor change resulting from proposed plans and programmes on the environment (Therivel, 2004). Strategic Environmental Objectives (SEOs) and targets set aims and thresholds that should be taken into account when assessing the impact of the proposed plans and programmes on the environment. Allied to the development of the SEOs are environmental indicators and targets. Indicators facilitate the monitoring aspect of the SEA, while targets provide a realistic and achievable target to which the local authority can work towards. Indicators are used to illustrate and communicate impacts in a simple and effective manner. Indicators can also be used to form the basis of a monitoring programme for the plan.

6.2 Development of Strategic Environmental Objectives

Strategic Environmental Objectives (SEOs) are methodical measures against which the environmental effects of the implementation of the Draft Ballinasloe Local Area Plan 2015-2021 can be tested. If complied in full, SEOs would result in an environmentally neutral impact from the implementation of the Draft Local Area Plan. The SEOs are set out under a range of topics and are used as standards against which the provisions of the Draft 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 Draft Local Area 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 county level and integrated into any plan for the county.

The SEA Directive requires that the evaluation of Plans and Programmes focus upon the relevant aspects of the environmental characteristics likely to be significantly affected. In compliance with this requirement, SEOs have been developed for the relevant environmental parameters, tailored to the environmental issues specific to the Draft Plan area. Focus has evolved throughout the SEA process, from the scoping stage to the compilation of the existing environmental baseline, identifying the key environmental issues and challenges which are prevalent within the plan area. In the case of the Draft Ballinasloe Local Area Plan, these environmental criteria relate particularly to water supply, wastewater treatment, flooding, biodiversity and climate change.

Particular focus has been given to environmental parameters which are likely to be impacted upon as a result of implementation of the Draft Local Area Plan. The SEOs are linked to a series of targets and indicators which can facilitate in monitoring the implementation of the Plan when adopted (see Section 10 on Monitoring).

The primary source used in formulating the SEOs was Table 4B of the SEA Guidelines which have been tailored to be relevant to the plan area. The use of SEOs, although not a statutory requirement, does fulfill obligations set out in Schedule 2B of the Planning and Development (Strategic Environmental Assessment) Regulations 2004, as amended. The SEOs formulated for this SEA for the Draft Ballinasloe Local Area Plan area are broadly in line with those of the Galway County Development Plan and are set out in Table 6.1.

SEA Topics	SEO Objectives	Principal Aims of the SEO's	Detailed Assessment
Biodiversity, Flora and Fauna	<p>B1: To ensure compliance with the Habitats and Birds Directive with regard to the protection of Natura 2000 Sites and Annexed habitats and Species¹⁴;</p> <p>B2: To ensure the protection, conservation to avoid the loss of diversity and integrity of a broad range of habitats, species and ecological and wildlife corridors and networks (non-designated sites) which provide connectivity between areas of local biodiversity within the Draft Ballinasloe Local Area Plan;</p> <p>B3: Conserve and protect other sites of Nature conservation including NHAs and pNHAs.</p>	To maintain and enhance biodiversity.	<ul style="list-style-type: none"> • Conserve protected habitats and species; • Ensure compliance with Habitats Directive with regard to the protection of Natura 2000 sites; • Protect the diversity of habitats and species in non-designated sites.
Population, Human Health	PHH: To protect human health from hazards or nuisances arising from exposure to incompatible land uses.	Improve people's quality of life by providing a high quality residential, working and recreational environment, and through the achievement of good quality health.	<ul style="list-style-type: none"> • Protect human health from hazards or nuisances arising from exposure to incompatible land uses; • Increase modal shift to public transport, walking and cycling; • Improve access to recreation and community facilities; • Reduce pollution; • Improve access for mobility impaired.
Soil & Geology	<p>SG1: To prevent pollution and/or contamination of soil;</p> <p>SG2: Conserve, protect and avoid loss of diversity</p>	Maintain the quality of soils.	<ul style="list-style-type: none"> • Maximise the sustainable re-use of brownfield sites and maximise the use of the existing built environment.

¹⁴ 'Annexed habitats and species' refer to those listed under Annex I, II & IV of the EU Habitats Directive and Annex I of the EU Birds Directive.

	and integrity of designated habitats, geological features, species or their sustaining resources in designated ecological sites.		
Water	<p>W1: To maintain and improve, where possible, the status of surface waters;</p> <p>W2: To prevent pollution and contamination of ground water;</p> <p>W3: To comply as appropriate with the Provisions of the Planning System and Flood Risk Management Guidelines for Planning Authorities (DEHLG,2009) and associated Circular PL 2/2014.</p>	Prevent any deterioration in the status of water bodies and achieve the status objectives as set out in the Water Framework Directive; Address flood risk by Implementing the associated guidelines and circular.	<ul style="list-style-type: none"> • Maintain and improve the Biotic Quality Rating (Q value) of water bodies; • Achieve 'good' status in surface water bodies by 2015; • Ensure sustainable levels of abstraction from surface and groundwater; • Promote sustainable use of water and water conservation; • Promote sustainable drainage practices including the implementation of SUDS; • Prevent point source pollution; • Upgrade water services infrastructure; • Protect WFD register of 'protected areas'; • Mitigate the effect of flooding through the incorporation of a risk-based sequential approach to the management of flood risk, in adherence with the Planning Guidelines on flood risk management and associated <i>Circular PL2/2014</i>.
Air and Climatic Factors	AC: To reduce travel related greenhouse emissions to air and to encourage modal change from car to more sustainable forms of transport.	Reduce air pollution and control greenhouse gas emissions.	<ul style="list-style-type: none"> • Minimise greenhouse gas emissions to meet National and International standards; • Promote energy conservation and use of renewable energy systems; • Promote sustainable transportation patterns.
Material Assets	M1: To serve new development with adequate	Maximise the use of existing	<ul style="list-style-type: none"> • Ensure provision of water services

	<p>and appropriate waste water treatment;</p> <p>M2: To serve growth areas with drinking water that is both wholesome and clean;</p> <p>M3: Make the best use of existing road and transportation infrastructure.</p>	<p>infrastructure and plan for future needs.</p>	<p>to serve existing and new communities;</p> <ul style="list-style-type: none"> • Ensure provision of sustainable transportation infrastructure which reduces the need for car borne travel and reduces journey length; • Promote sustainable waste management practices; • Provide for the development of effective energy and communications infrastructure.
Cultural Heritage	<p>CH1: To protect the archaeological heritage of the town including entries to the Record of Monuments and Places and/or their context and Architectural Conservation Areas;</p> <p>CH2: To preserve and protect the special interest and character of the town's architectural heritage.</p>	<p>Promote the protection and where appropriate, conservation, of cultural heritage, including architectural and archaeological heritage.</p>	<ul style="list-style-type: none"> • Protect and preserve features of special interest as included in the RPS, RMP and ACA; • Protect and enhance physical features and areas that contribute to the town's special character and setting; • Encourage appropriate re-use of the traditional or historic building stock; • Enhance access to sites of heritage interest.
Landscape	<p>L: To avoid significant adverse impacts on the landscape, especially with regard to landscapes which are most valuable and most sensitive to change and protected focal points and views.</p>	<p>Protect and enhance valued natural and built landscapes and features within them.</p>	<ul style="list-style-type: none"> • Maintain clear urban/rural distinction; • Enhance provision of, and access to, green space in urban areas.

Table 6.1 Strategic Environmental Objectives

6.3 Application of Strategic Environmental Objectives

A key function of developing a series of SEOs is to allow for the Draft Local Area Plan's development and zoning objectives to be assessed in relation to the significance of any effects that are likely to have on the environment. Section 8 includes an assessment of both the Draft Local Area Plan objectives and the proposed land-use zonings as presented in the plan.

Section 7 Development and Consideration of Alternatives

7.1 Introduction

One of the critical roles of the SEA is to facilitate an evaluation of the likely environmental consequences of a range of alternative strategies for accommodating future development in Ballinasloe. 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. This section identifies and describes different plan scenarios, taking into account higher level strategic actions as well as the geographical scope of the town.

7.2 Legislative Context

The development and assessment of alternatives is a legal requirement under the SEA Directive and Regulations Article 5(1) of the SEA Directive and 13E (1) of the Planning Development (Strategic Environmental Assessment) Regulations 2004 (as amended 2011) requires that the Planning Authority considers this topic within the Environmental Report. Under Article 5(1)

“Where an environmental assessment is required under Article 3(1), an environmental report shall be prepared in which the likely significant effects on the environment of implementing the plan or programme, and reasonable alternatives taking into account the objectives and the geographical scope of the plan or programme, are identified, described and evaluate. The information to be given for this purpose is referred to in Annex 1”.

Annex 1 (h) of the Directive clarifies that the information to be provided on alternatives under Article 5(1) *is inter alia* an outline of the reasons for selecting the alternatives dealt with, and a description of how the assessment was undertaken including any difficulties (such as technical deficiency or lack of know-how) encountered in compiling the required information.

Article 9 of the Directive requires that a statement shall be prepared providing information on the reasons for choosing the plan as adopted, in the light of the other reasonable alternatives dealt with.

Annex 1 (f) details the environmental topics to be considered in the evaluation of the alternatives, which is the same as that addressed in the assessment of the plan itself:

“biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above factors”.

Therefore the Directive emphasises that the SEA process must consider alternatives that are “reasonable”, and take into account “the objectives” of the plan, and “the geographical scope of the plan”.

The SEA Statement, which is required at the end of the plan-making and SEA process, must include and summarise “the reasons for choosing the plan as adopted, in the light of other reasonable alternatives dealt with” (131(c) of the SEA Regulations).

Alternatives were formulated through consultation with the plan making team of Galway County Council and regard was had to the draft “Developing and Assessing Alternatives in Strategic Environmental Assessment” – Good Practice Guidance February 2014.

The alternative scenarios are evaluated in the following sections which results in the identification of potential impacts and informing the selection of a preferred alternative for the Draft Local Area 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.

7.3 Identification and Description of Alternative Plan Scenarios

7.3.1 Introduction

The following section summarises a series of “Scenarios” which provide alternative visions of how the future development of Ballinasloe might occur. These are neither predictions nor preferences—instead they offer a range of plausible and internally consistent narratives of the outcome of different planning and development strategies.

A range of three potential scenarios for the types of planning strategies that could be adopted are described below, these represent increasingly intensive and extensive development. A number of features are core to all scenarios, namely the location, extent and use of lands adjoining the Natura 2000 sites and the requirements of lands for housing. As a result the following are key components of the alternatives:

- It is estimated that there is a requirement of 477 additional housing units by 2021;
- The housing land requirement is 35.81Ha (with 50% over provision) in order to accommodate residential development over the plan period;
- Sufficient town centre lands to be provided to allow Ballinasloe develop;
- Sufficient employment lands to be provided to allow Ballinasloe function as “County Town” in accordance with the Galway County Development Plan 2015-2021;
- New residential development to be located in proximity to community facilities, educational facilities and local services;
- Phasing of Residential lands;
- The natural and built heritage of the plan area should be protected and enhanced where possible.

7.4 Alternatives Considered for SEA

The following strategic alternatives for the Local Area Plan were considered for assessment and are shown in Figures 7.1-7.3. The strengths and weaknesses of the various approaches are evaluated and a preferred alternative derived. A summary of the assessment of each alternative is included in table 7.1-7.3. The following criteria have been used in the Assessment Matrix:

	Alternative is consistent with environment goal
	Alternative is in conflict with environment goal
	Alternative is both consistent and in conflict with environmental goal
	Neutral/No Impact

7.4.1 Development Option 1 – Haphazard Development with a refined plan boundary

Alternative Considered				
<p>This alternative Scenario 1 (see Figure 7.1) may potentially lead to 'leapfrogging' over serviced and zoned sites to more remote areas where existing essential services/facilities including transportation may require upgrading. This scenario may also potentially facilitate pockets of development at peripheral locations within the Local Area Plan area including a proliferation of ribbon development.</p>	<p>W3</p>	<p>B1,B2,B3,M3 L W1,W2,</p>	<p>PHH S1 S2 M1,M2 AC</p>	<p>CHI CH2</p>
<p>Population growth would be accommodated throughout the draft plan area on land zoned for a number of specific uses. Growth would be managed but there would be a lack of integration and structure to grow due to the un-coordinated manner of this alternative. Growth would become more sporadic and potentially lead to ribbon development on the approaches into the town. By allowing this to occur services and facilities like local shops, community facilities etc will become more sporadic in that there will be a weak settlement and community focus in which to target specific growth. This option will also lead to a lack of cohesion in the approach to town centre activity, competition with out of town retailing opportunities for existing businesses to relocate from the town centre out will continue to threat the vitality and viability of the town centre. Rural areas would be under greater risk from development and servicing growth with infrastructural services like wastewater and water supply would become more challenging and would not be cost-effective as areas closer to the town have sufficient infrastructural capacity. In relation to flood risk the areas that have been identified as Flood Zone A and B will be zoned "Open Space/Recreational Uses" and development would only be considered subject to the justification test for areas at flood risk. In addition areas that are developed but find themselves in a flood risk areas will have the "Constrained Land Use" applied to their lands which requires them to comply with the Flood Risk Assessment. This option is likely to have potential significant adverse impacts on all elements of the environment but in particular, biodiversity, water quality, landscape and in relation to the quality of life for the residents of the plan area.</p>				

Table 7.1 Development Alternative No.1

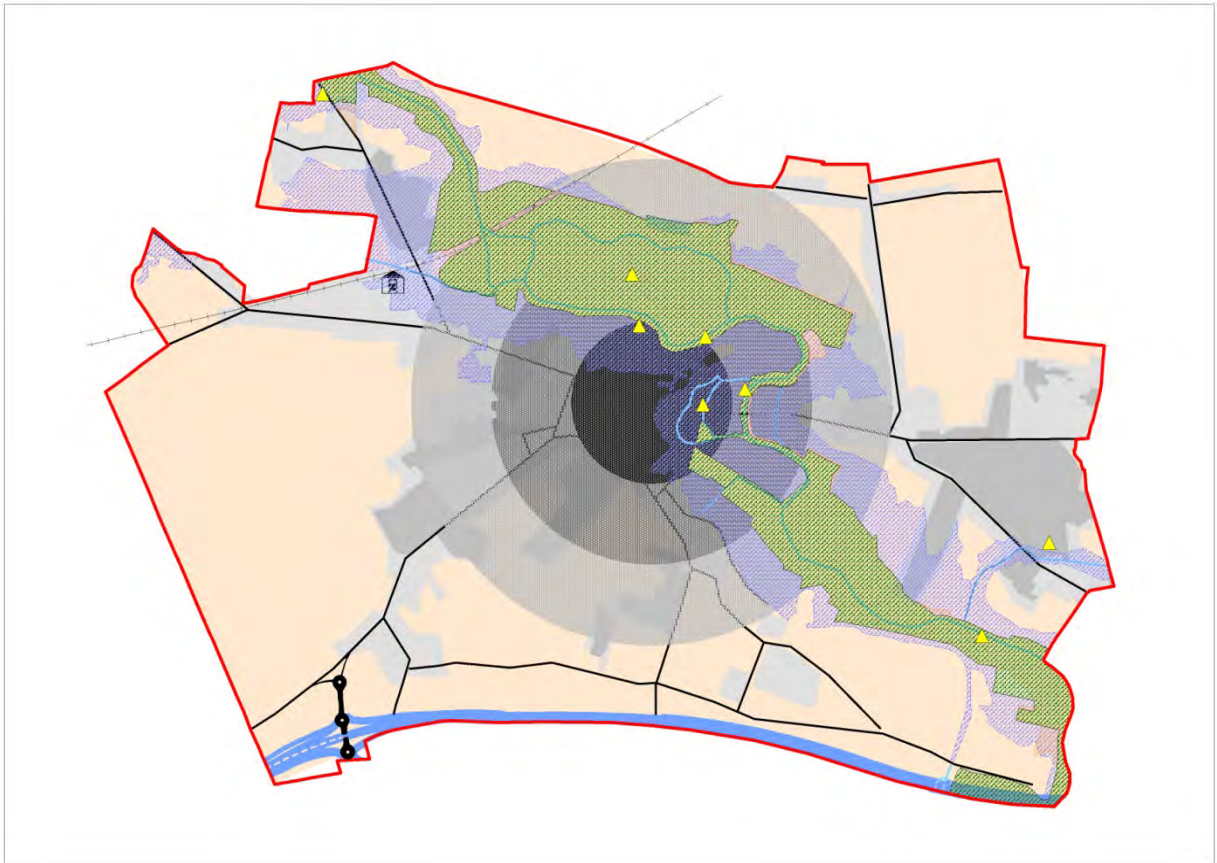


Figure 7.1 Development Option 1- Haphazard Development with a refined plan boundary

7.4.2 Development Option 2 –Consolidation of Existing Development with Sequential Development around Consolidated Areas with a refined plan boundary

Alternative Considered				
<p>This Alternative Scenario No.2 (See Figure 7.2) option provides for the consolidation of existing development, sequential development around the established urban core and controlled expansion mainly at Dunlo to the south of the Town Centre and limited sequential expansion around existing developed areas at Kilgarve/Glentaun. Densities will be proposed at appropriate locations, while also supporting the redevelopment of existing brownfield, derelict, backland sites and existing laneways within the urban core and adjacent areas.</p> <p>Development within the remainder of Ballinasloe is encouraged in a sequential manner in order to maximise return on investment in services and to ensure the availability of optimal residential lands to accommodate anticipated growth.</p>	<p>PHH, W3,M3, AC.</p>		<p>S1,S2,W1,W2, M1,M2 CHI,CH2 L.</p>	

This alternative favours meeting the development needs of the Draft Local Area Plan through consolidation of the existing development and the appropriate expansion around these areas in order to meet the needs of the plan area and the core strategy requirements. This option will ensure the availability of optimal and serviceable lands in order to accommodate the anticipated growth. Consolidation of development would focus on the utilisation of vacant and underutilized lands. This strategy would focus on the principles of sustainable living and creating sustainable communities. This would be achieved by identifying specific areas that will have identified growth strategies in accordance with capacity and demand for growth. Consolidation of the urban form would facilitate and promote sustainable mobility. In order to ensure that adequate supply of land is available for a range of economic uses including business and technology, industrial greenfield sites on the periphery of the developed areas will be required resulting in expansion of the defined settlement areas. Environmental sensitivities within the draft plan would inform potential land-uses and the nature and scale of development. Where expansion is required any potential environmental impacts would be mitigated against in the plan preparation process (policies and objectives identified in the plan as a result of the SEA, AA and SFRA process). Integration of sustainable mobility, protection of amenity areas would all have potential positive cumulative effects in relation to human health and quality of life, air quality and climate change. The positive cumulative effects are achieved as a result of consequences relating to sustainable travel patterns, protection of the natural heritage and the protection of soil through minimising development of greenfield sites and the enhancement of the built environment. Impacts on wildlife, habitats and designated sites would all have positive impacts as a result of this development option. This option will also avoid significant environmental impacts in relation to identified flood risk areas and ensure compliance with the Flood Risk Guidelines 2009 and the associated circular PL2/2014.

Table 7.2 Development Alternative No.2

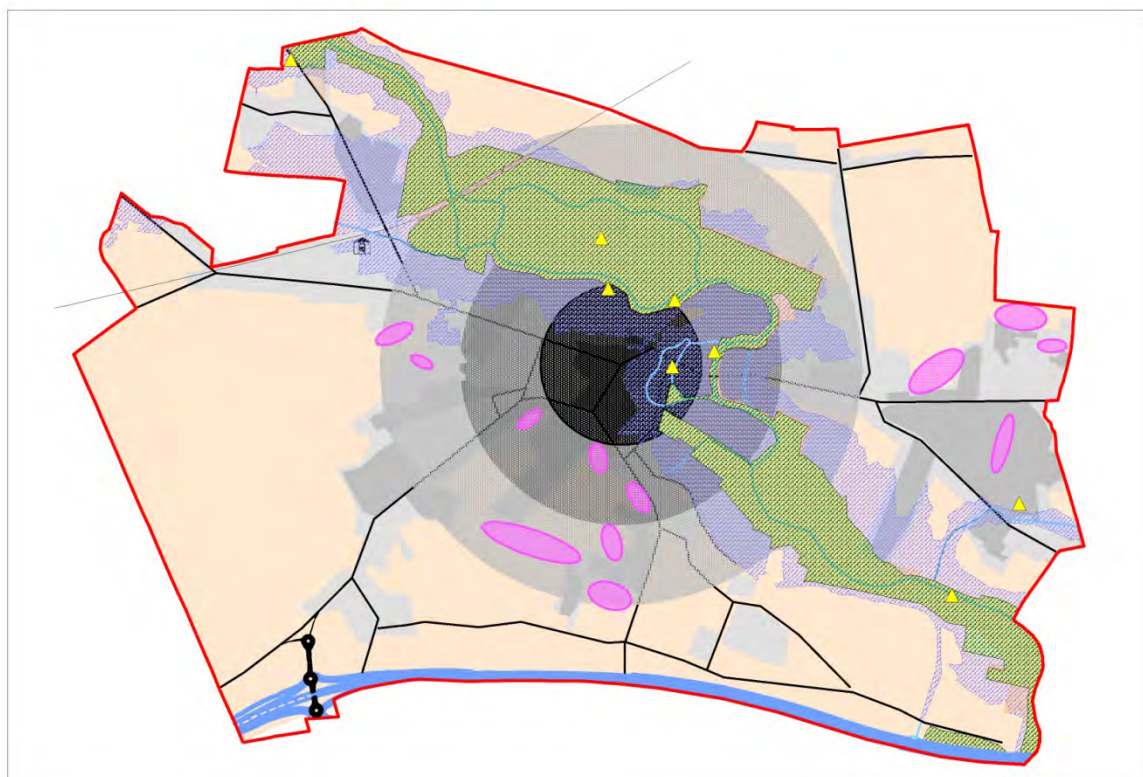


Figure 7.2 Development Option 2- Consolidation of Existing Development with Sequential Development around Consolidated Areas with a refined plan boundary

7.4.3 Development Option 3 – Bi-Nodal Development with a refined plan boundary

Alternative Considered				
<p>This scenario provides for the intensification and extension of new development both within the Town Centre and the development of a second neighbourhood centre on the eastern bank of the River Suck. Development under this option would result in an increase in ribbon development on the main eastern inward routes specifically to the north and south of the R446 and R357 with associated impacts in terms of poor environmental quality, increased traffic and congestion along these approach roads, increasingly peripheral car based development and would militate against easy walking distance to the town centre. This option may also lead to the unsustainable management of some development in relation to flood risk areas as well as sensitive environmental areas especially areas adjacent to the River Suck and associated flood zones, the continuance of urban sprawl and the improper management of development pressures at main transportation interchanges.</p>	<p>CH1 CH2</p>	<p>B1 B2 B3 PHH M1 M2,M3 L.</p>	<p>S1 S2 W1 W2 W3 AC</p>	
<p>This alternative favours meeting the development needs of the draft plan area by adopting a bi-nodal approach and creating a second neighborhood centre on the eastern side of the River Suck. This approach poses challenges in relation to the feasibility of encouraging sustainable travel options and implementing measures to encourage modal shift. The social cohesion of the existing settlements would suffer as consequences of the strategy of bi-nodal development. The potential with which the existing built environment and areas immediately surrounding has to offer in providing for the future needs of the draft plan would not be prioritised and therefore not fully realised if a second neighborhood was developed. This option would also have an impact on the quality of the built environment and possible loss of biodiversity, flora and fauna if development of a new settlement centre was to proceed. With the creation of the neighbourhood centre to the east of the River Suck this may have a direct impact on the ecological networks and flood risk management of the area which could have a direct impact on the quality of life for the local residents.</p>				

Table 7.3 Development Alternative No.3

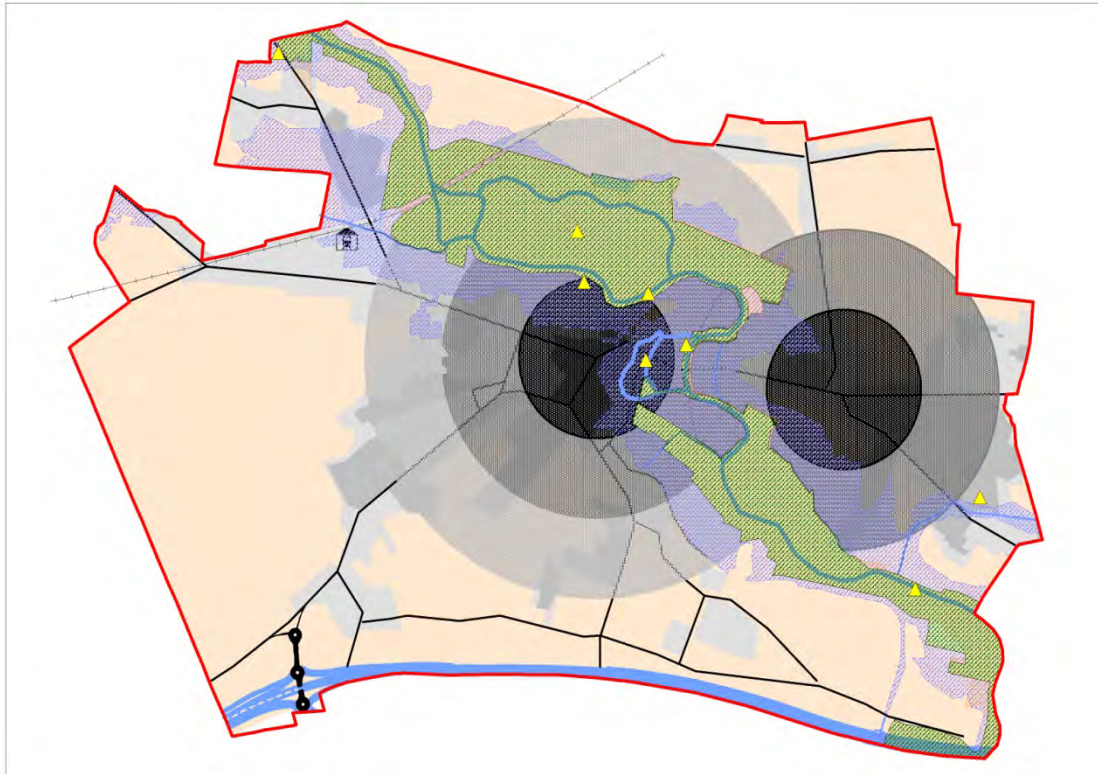


Figure 7.3 Development Option 3- Bi-Nodal Development with a refined plan boundary

7.5 Evaluation of SEA Alternatives

The visual appraisal for each development alternative against the SEO objectives is shown in Table 7.4. Each alternative is mapped in Figures 7.1-7.3 and should be referred to whilst reviewing Table 7.4.

Alternative	Biodiversity, Flora and Fauna	Population, Human Health	Soil & Geology	Water	Air and Climatic Factors	Material Assets	Cultural Heritage	Landscape
1.Haphazard Development with a refined plan boundary	Red	Light Green	Light Green	Light Green	Red	Red	Yellow	Red
2.Consolidation of Existing Development with Sequential Development around Consolidated Areas with a refined plan boundary	Light Green	Dark Green	Light Green	Light Green	Light Green	Light Green	Light Green	Yellow
3.Bi-Nodal Development with a refined plan boundary	Red	Light Green	Red	Light Green	Red	Light Green	Dark Green	Red

Table 7.4 Alternatives Option Scores against SEOs

7.6 SEA Preferred Alternative

Table 7.4 highlights that Alternative 2 is generally considered to be the most positive alternative when measured against the SEOs of this Environmental Report. Alternative 1 and 3 are generally considered to be more negative when reviewed in relation to the SEOs of this environmental report. Therefore the preferred SEA Alternative for the purpose of the Local Area Plan is Alternative 2.

7.7 The Preferred Alternative

The preferred Alternative as proposed under the development strategy for the Ballinasloe Local Area Plan is Alternative 2. The alternative chosen within the Ballinasloe Local Area Plan is in accordance with preferred alternative scenario as prepared in this Environmental Report. This alternative scenario would meet a large number of the objectives of the plan as it supports the consolidation of existing developed areas and will ensure the availability of optimal residential lands to accommodate anticipated growth requirements. This alternative also encourages the development of vacant and under-utilised sites in the town and ensures that those lands close to the town are the primary focus for development, thereby placing future residents within reasonable walking and cycling distance from the town centre services and thus reducing or minimising the demand for car generated trips by providing a more sustainable and integrated transport and land-use structure. Rural housing provision on lands in this alternative will be provided for through specific objectives tailored to accommodate such developments within the immediate environs of the settlement areas.

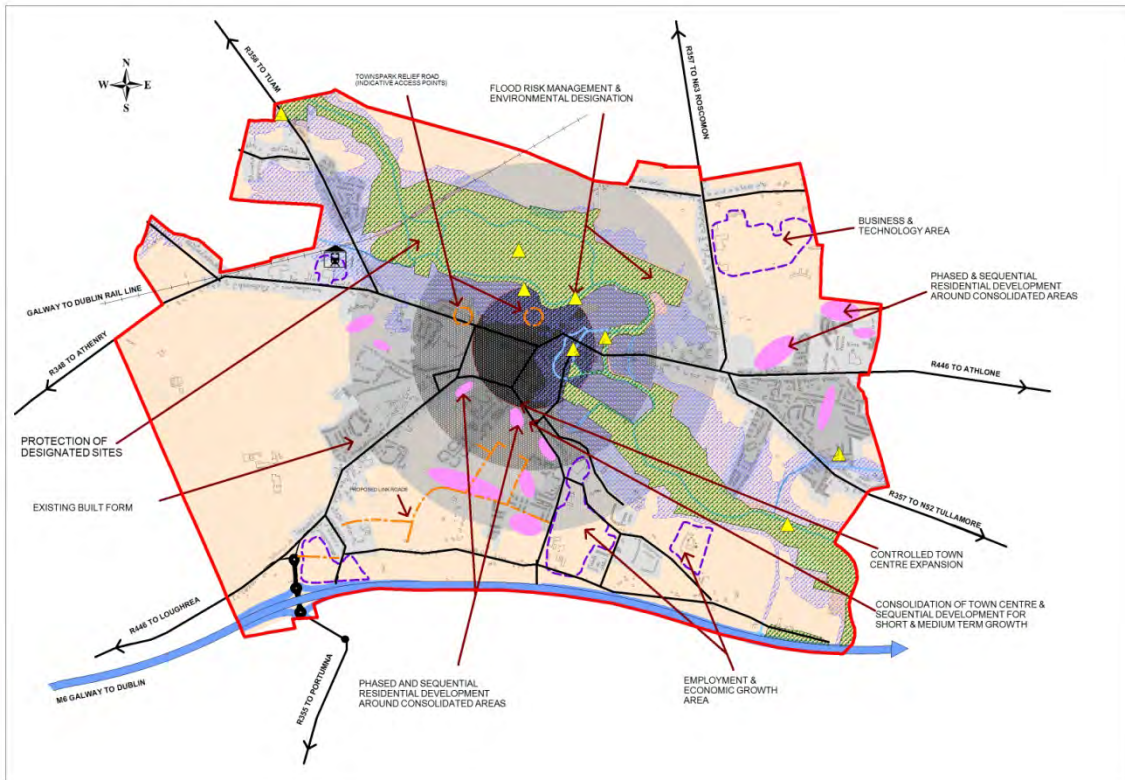


Figure 7.4 Preferred Development Option

Section 8 Assessment of Effects of Implementing the Ballinasloe Local Area Plan

8.1 Introduction

The purpose of this section is a summary of the detailed assessment of the objectives and land-use zonings within the Draft Ballinasloe Local Area Plan, which will identify where, if any effects on the environment may occur. These may be positive or negative effects, direct, indirect, synergistic, cumulative and/or in-combination effects.

8.2 Environmental Issues

Having established the environmental baseline and the key environmental sensitivities for the plan area in Section 3 and the Strategic Environmental Objectives in Section 6 an assessment for any potential environmental effects from implementing the Ballinasloe Local Area Plan was undertaken. The assessment carried out was primarily qualitative in nature, based on the expert judgment of the SEA/AA and plan making team. A precautionary approach was adopted in undertaking the assessment, whereby in the absence of scientific certainty, a prudent approach was taken in the protection of the Environment. An SEA Assessment Matrix is set out in the attached Appendix (I), on which the Draft Local Area Plan's development policies and objectives are listed on the one axis and the Strategic Environmental Objectives (SEOs) are listed on the other axis. Potential effects of the Draft Local Area Plan on the SEOs are determined as follows:

	Significance of Impacts
	Positive
	Negative
	Positive & Negative
	No significant relationship/Neutral/Uncertain

The SEA Assessment Matrix includes a column headed "Comments & Mitigation Measures", which describes the reasons why a negative impact has been identified and the environmental objectives that mitigate the negative impacts.

While the majority of impacts was found to be either positive, neutral or contained both positive & negative impacts, particular attention has been paid to the identification of the draft local area plan policies and objectives that conflict with some of the SEOs of the Environmental Report. All mitigation measures proposed as a result of this assessment are outlined in Section 9-10 of this report.

8.3 Overview of Evaluation of Policies and Objectives

8.3.1 Development Strategy

Development Strategy objectives aim to support orderly and sequential development which are to be consistent with the following:

- The Core Strategy of the Galway County Development Plan;
- To protect Natura 2000 Network and Habitats Directive;
- To implement the development management standards and guidelines as set out in Galway County Development Plan;
- To ensure that development is preceded by sufficient capacity in the public waste water and potable water infrastructure;
- To direct residential development into appropriately zoned land and serviced lands;
- To ensure that all new developments will be assessed in accordance with the provisions of the Flood Risk Management Guidelines 2009 and associated circular PL2/2014.

The policies and objectives for the Development Strategy support and facilitate the sustainable

development of the plan area in line with the preferred development strategy option, Option 2- Consolidation of Existing Development with Sequential Development around Consolidated Areas with a refined plan boundary. This strategy maintains and enhances the quality of life of the local community, promotes opportunities for economic development, social integration, sustainable transport options, protects the cultural, built and natural heritage and environment. There is some potential for negative impacts on biodiversity, water and human health as a result of development and the requirement for population growth in line with the Core Strategy. Any new development applications in this regard will be subject to the objective DS8 which specifically relates to the sufficient capacity in the public waste water and potable infrastructure and therefore potential impacts will be minimised or mitigated at this stage.

8.3.2 Residential Development

The policies and objectives for Residential Development are generally aimed at the provision of adequate suitable housing and at a rate and scale which is in line with the core strategy of the County Development Plan and the Ballinasloe Local Area Plan. These policies and objectives are expected to result in positive direct and indirect impacts to population through improvements to quality of life and ensure that there is suitable accommodation for a wide section of the population. Appropriate densities, housing mix and provision of services in relation development of new residential developments are promoted within the section.

Policy RD1 & Objective RD1 promotes the phasing of development and the prioritisation of phase 1 residential zoned lands within close proximity of the town centre during the lifetime of the plan. This will indirectly assist in maintaining the habitat networks and rivers in undeveloped rural areas by promoting development in the town centre and established settlement areas of the town. There is also a specific objective RD 2 which promotes sequential development of lands in an orderly and phased manner. There is some potential for negative impacts on biodiversity, water and soils; however there are sufficient policies and objectives that will ensure that these impacts are mitigated especially in Section 3.10.2 objectives NH1, NH2, NH6, NH7 & NH8. Any new development proposals in this regard will also be subject to development management requirements of the Ballinasloe Local Area Plan and the Galway County Development Plan and potential impacts will be minimised or mitigated during this process.

Impacts on the human health of the local population as a result of promoting the consolidation of development within and immediate to the town centre would be positive in the promotion of walking and cycling.

8.3.3 Social and Community Development

The policies and objectives for social and community development in Section 3.3.2 are generally aimed at the provision of services and education for the community (Objectives CF3, CF4, CF5, CF6, CF7, CF11 & CF12). It is considered that there would be a direct positive impact on the local population in terms of the requirement that social and community developments are located in close proximity to the residential population (Objective CF4 & CF 5). There will be an indirect positive impact with respect to the air and climatic factors of the town as a result of the reduction in travel related journeys due to the encouragement of the social and community developments to be in close proximity to the local residential population.

There is some potential for negative impacts on biodiversity, water and soils; however there are sufficient policies and objectives especially in Section 3.10.2 (Objectives NH1, NH2, NH6, NH7 & NH8) that will ensure that these impacts are mitigated. Any new development proposals in this regard will also be subject to development management requirements of the Ballinasloe Local Area Plan and the Galway County Development Plan and potential impacts will be minimised or mitigated during this process.

8.3.4 Economic Development

The policies and objectives regarding Economic Development are aimed at facilitating and encouraging tourism, retail and economic development of Ballinasloe which would reinforce the town's designation as a "County Town" in accordance with the Galway County Development Plan. To achieve this and maintain the status of Ballinasloe as the "County Town" policies and objectives in Section 3.4.2 are crafted to exploit the towns location and to ensure that lands are strategically located to provide for future development. In addition, it is anticipated that tourism developments could have the potential to increase

tourism and employment numbers which would directly have an impact on the quality of life for the local residents in that with new employment opportunities there is less time commuting to outside the area for work. The objectives in relation to the tourism potential (ED7 & ED8) are largely anticipated to have a positive impact on population through improving the economic prosperity of Ballinasloe.

As with any new commercial, industrial or tourism related developments there is potential for negative impacts arising, however there are sufficient policies and objectives that will ensure that these impacts are mitigated. There are sufficient policies and objectives especially in Section 3.10.2 objectives NH1, NH2, NH6, NH7 & NH8 which will ensure that these impacts are mitigated. Any new development proposals in this regard will also be subject to development management requirements of the Ballinasloe Local Area Plan and the Galway County Development Plan and potential impacts will be minimised or mitigated during this process.

8.3.5 Transport Infrastructure

A number of policies and objectives in Section 3.5.2 promotes the use of sustainable forms of transport such as walking, cycling and public transport which will all have positive impacts on the wider environment. This promotion of sustainable transport will also have positive indirect and cumulative impacts on the air and climatic factors as a result of the decrease in emissions associated with the reduction in the use of private vehicles. There are positive impacts on the quality of life for local residents and positive impacts on the material assets through the provision of improved infrastructure for users of sustainable transport modes, e.g. Public Transport, cycling and walking.

In addition, the promotion of sustainable travel with integrated land use and transportation policies should encourage the redevelopment of Ballinasloe rather than development on sites that are not serviced by public transport or cycle/walking networks, which results in a positive direct impact on the quality of life for the residents of the plan area.

There is however potential for indirect negative effects with regard to the development of new road infrastructure with respect to biodiversity, water, soils and landscape in particular; however, it is considered that there are sufficient policies and objectives especially in Section 3.10.2 under objectives NH1, NH2, NH6 & NH7 that will ensure that these impacts are mitigated.

8.3.6 Utilities Infrastructure

The adequacy of water, waste water and environmental services is essential for the sustainable development of Ballinasloe. These key issues are addressed in various policies and objectives in Section 3.6.3 & 3.6.6 to provide for sufficient water, wastewater and drainage infrastructure to serve the projected growth in population that is envisaged.

There are a number of policies and objectives that specifically relate to the provision of waste management in Section 3.6.9 which encourages the reduction, reuse and recycling of waste materials. In Section 3.6.11 the provision of energy infrastructure, renewable energy and telecommunications ensures that existing and future telecommunication requirements of the town are planned in an environmental sustainable manner for the duration of the plan period.

The policies and objectives in relation to waste management will generally have positive direct and indirect impacts through the provision of recycling facilities throughout the plan area which will benefit biodiversity, flora and fauna, human health, soils, air & climatic factors, landscape and material assets. The policies and objectives relating to the provision of energy and communications infrastructure will have direct and indirect positive impacts on population by improving the quality of life for the residents of Ballinasloe.

8.3.7 Climate Change and Flooding

There are a number of policies and objectives within Section 3.7.2 that focus on climate change and green infrastructure, air quality and flooding. The promotion of improved air quality and climate change adaptation framework will result in positive direct impacts on air and climatic factors, population and human health, biodiversity and material assets.

In relation to avoidance of development in flood risk areas and the recognition of existing built up areas that are prone to flood risk there are a number of objectives (FL1, FL2, FL3 & FL4) that will result in positive direct impacts on water, population and human health, soils and biodiversity.

8.3.8 Urban Design and Landscape

The protection of the built environment and the recognition of the requirement of high quality, and sensitive design of buildings within Ballinasloe are outlined in Section 3.8.1. The importance of Ballinasloe townscape qualities which are derived from its historic urban structures are noted throughout the Local Area Plan. There are a number of policies and objectives (UD1, UD2, UD3, UD5 & UD6) that support the urban fabric of Ballinasloe and these objectives will result in positive direct impacts on population and human health, material assets and cultural heritage.

In relation to landscape there is a positive presumption in the promotion of the landscape character, values, sensitivities and views within the plan area. The objective in relation to Landscape (UD 7) will result in positive direct impacts on population and human health, material assets and the landscape itself.

8.3.9 Built and Cultural Heritage

The built heritage should be carefully considered in any such proposed developments. The consolidation and expansion of the town centre is primarily expected to result in positive impacts as these could result in the redevelopment of brownfield lands, thereby protecting soils, water and biodiversity and population from cumulative impacts of new developments. There can also be instances where development and intensification of construction may have indirect impacts in terms of placing pressure on soils, water and biodiversity. However it is considered that the integration of the policies and objectives in Section 3.9.2 would be expected to reduce indirect negative impacts on other receptors.

The protection and enhancement of Ballinasloe towns built heritage is central to the Local Area Plan. The policies and objectives for cultural, architectural and archaeological heritage will generally be positive through the protection and preservation of the cultural heritage.

8.3.10 Natural Heritage and Biodiversity

The importance of green infrastructure and ecological networks is recognised within the plan area. There is a designated ecological site within the plan area, policies and objectives ensure the protection of this designated site. In addition to this designated site there is also proposed natural heritage areas within the plan area, policies and objectives are also set out to ensure that these sites are also protected. The policies and objectives in Section 3.10.2 for natural heritage and biodiversity for the Ballinasloe Local Area Plan will generally be positive for biodiversity as it aims to protect and promote opportunities for enhancement of local biodiversity features throughout the plan area. It is considered that there will be indirect positive impacts on water and soil as the protection, conservation and enhancement of biodiversity is expected to also result in protection of these resources.

The policies and objectives in this section are expected to result in largely positive direct and indirect impacts to population through the improvements to the quality of life. It is considered that there will be indirect positive effects in relation to biodiversity and landscape.

8.3.11 Overview of Evaluation of Land Use Zoning Objectives

The Ballinasloe Local Area Plan 2015-2021 provides a development framework to guide the development for the next six years. As part of the development framework, one of the key principles to this approach as set out in the Ballinasloe plan is to achieve consolidated growth rates over the short to medium term through development of residential, employment, cultural, retail and educational facilities. The framework for the plan is outlined on Map 1A and Map 1B of the Ballinasloe plan and associated land use zoning objectives. Figure 8.1 illustrates the proposed land use map as contained in the Draft Local Area Plan and Figure 8.2 illustrates the comparison between the land use zoning as adopted under the 2009-2015 Town Development Plan (as varied) and the Draft Local Area Plan. The purpose of land use zoning is to indicate to property owners, and to the general public, the types of development that the Council considers most appropriate in each zone.

Land use zoning objectives are provided for with respect to the following uses:

- Town Centre/Commercial;
- Commercial/Mixed Use;
- Residential Phase 1;
- Residential Phase 2;
- Industrial;
- Business & Enterprise;
- Business & Technology;
- Community Facilities;
- Environmental Management;
- Open Space/Recreation & Amenity;
- Public Utilities;
- Transport Infrastructure.

Town Centre/Commercial

Lands zoned for town centre uses are generally considered to be quite positive with respect to population, climate change and material assets as they promote the consolidation and improvement of these areas and provision of services in close proximity to same. This will have indirect positive effects on landscape due to the promotion of vacant lands and underutilized sites which will have a net positive effect through reduction in development on greenfield lands.

Residential Phase 1

Undeveloped lands zoned for new residential development during the lifetime of the plan are zoned R-residential in Map 1A of the Ballinasloe Local Area Plan. These undeveloped zoned lands include lands which have the benefit of planning permission and have not yet been developed. R-Residential (Phase 1) zoned lands also include residentially zoned lands identified as part of the development strategy for the Ballinasloe Local Area Plan which will aim to deliver the Core Strategy allocations as set out in the Galway County Development Plan. Phase 1 lands are strategically located in close proximity to existing residential and business/commercial developments.

Residential Phase 2

Map 1A of the Ballinasloe Plan makes provision for residentially zoned Phase 2 lands under zoning R2. These undeveloped lands are reserved for the longer term growth needs of the town and are generally located in more peripheral areas to the south and east of the town with a number of parcels of R2 lands to the north of the town. These lands will not normally be eligible for development during the lifetime of this Plan. However, consideration will be given to single house developments for family members on family owned lands or where it is apparent that Residential (Phase 1) lands cannot or will not be developed within the plan period. These lands may accommodate residential units however compliance with the core strategy is required and the principles of proper planning and sustainable development will also be required.

The phased development of lands for residential use in accordance with Map 1A will have an overall beneficial effect on population, climate change, landscape and material assets as residential development will be developed in a planned, phased and serviced manner. This would result in high quality living environments; it promotes sustainable transport, walking and cycling and will reduce potential effects on landscape from otherwise sprawling developments throughout the environs of the town.

As with all new developments on greenfield sites, there is potential for negative effects on biodiversity, water and soils. However, it is anticipated that any potential mitigation measures would be offset or mitigated against through the normal development management process which is likely to offset any significant impacts associated with development of these lands.

Industrial

Objectives for the development of Industrial lands are anticipated to have a positive direct impact on population and material assets as these land uses will help to reinforce the town's designation as the County Town under the Core Strategy of the County Development Plan. The zoning of these lands provides an opportunity to increase employment in these areas and as a result has a direct positive impact on the quality of life for those living in Ballinasloe.

Zoning of Industrial lands to the south of the plan area in close proximity to the town centre is in line with the Local Area Plan's development strategy which supports the use of public transport and walking and cycling and will as a result reduce impacts on climate change. Secondary positive impacts on population, climate, landscape and material assets as these objectives would be expected to discourage sprawl of these uses in an unregulated manner throughout the town.

As with all new developments, there is the potential for in combination effects (along with other developments planned for the town) to have impacts on biodiversity, soil, water and landscape through pressure on wastewater systems, water supplies and through development of greenfield lands. However, any new developments on these lands would be subject to the normal development management process which is likely to offset any significant impacts associated with development of these lands.

Business and Technology

Objectives for the development of Business and Technology lands are anticipated to have a positive direct impact on population and material assets as these land uses will help to reinforce the town's designation as the "County Town" under the Core Strategy of the County Development Plan. The zoning of these lands provides an opportunity to increase employment within the town and as a result has a direct positive impact on the quality of life for those living in Ballinasloe.

The zoning of Business and Technology lands to the north east of the plan area, which are situated on lands with an established technology park within easy access of the town, support the use of public transport and walking and cycling and will as a result reduce impacts on climate change. Secondary positive impacts will also occur on population, climate, landscape and material assets as these objectives would be expected to discourage sprawl of technology parks in an unregulated manner throughout the town.

Business and Enterprise

Objectives for the development of Business and Enterprise lands are anticipated to have a positive direct impact on population and material assets as these land uses will help to reinforce the town's designation as the "County Town" under the Core Strategy of the County Development Plan.

The zoning of these Business and Enterprise lands which are in close proximity to existing residential lands and which are within easy access of the town centre supports the use of public transport, walking and cycling and will as a result reduce impacts on climate change. Secondary positive impacts will also occur on population, climate, landscape and material assets as these objectives would be expected to discourage sprawl of the business and enterprise uses in an unregulated manner throughout the town.

Community Facilities

The aim of the land use zoning objective for community facilities is to protect and provide for the development of schools, community and educational facilities. It is anticipated that this land use zoning objective would have an overall positive effect on population as it would improve educational and community facilities serving the public. As with all new developments there is potential to impact on biodiversity, soils, landscape and water through the development of greenfield lands. However, any new development would be subject to development management requirements of the Ballinasloe Plan and the Galway County Development Plan.

Environmental Management

Objectives for the development of Environmental Management lands relate to lands that have a high biodiversity value and/or environmental sensitivities which include the protection of the integrity of

European sites that form part of the Natura 2000 network. It is anticipated that this land use will have a positive direct impact on population, biodiversity and material assets. This land use objective is expected to result in direct positive impacts to biodiversity. Positive and secondary impacts are also likely to occur in the areas of soil and water due to the controls that would be placed on development as a result of implementation of this objective.

Open Space/Recreation & Amenity

The land use objective for Open Space/Recreation and Amenity aims to retain and protect existing open space and recreational facilities and uses and to protect these lands from urban sprawl and ribbon development. Additionally, these lands are zoned to ensure that any flood risk areas within the OS zone are appropriately managed to avoid, reduce and/or mitigate, as appropriate, the risk and potential impact of flooding.

This land use objective will have overall positive effect with respect to population and climate change. It will help to maintain the quality of people's lives through high quality environments and providing recreational areas which may indirectly have positive effects on people. This land use objective is expected to result in direct positive impacts to biodiversity. Positive and secondary impacts are also likely to occur in the areas of soil and water due to the controls that would be placed on development as a result of implementation of this objective.

Agriculture

The land use zoning objective for Agriculture aims to protect the rural character of the plan area from inappropriate development and provide for agricultural and appropriate non-urban uses. This land use objective will have overall positive effects with respect to population and climate change as the quality of people's lives are improved through the provision of high quality environments and recreational areas. This land use objective is expected to result in direct positive impacts to biodiversity. Positive and secondary impacts are also likely to occur in the areas of soil and water due to the controls that would be placed on development as a result of implementation of this objective.

Public Utilities

The land use objective for public utilities aims to facilitate the provision and maintenance of essential public utility infrastructure, together with necessary ancillary facilities and uses, as appropriate. Zoning of lands for public utilities is necessary to take account of existing wastewater treatment within the boundary of the plan area. This zoning provides lands for improvements to existing wastewater infrastructure and therefore has the potential to provide positive impacts on population, biodiversity and water quality. However, as with all new developments, development within public utilities zones have potential for impacts on biodiversity, soil, water and landscape through construction activities and development of greenfield lands. However, any new developments on these lands would be subject to the normal development management process which is likely to offset any significant impacts associated with development of these lands.

Constrained Land Use Zone (CL) (Refer to Maps 1A/1B)

The land use zoning for constrained land use applies to developed areas that are located within a flood risk area. The underlying zonings or the existing permitted uses are deemed to be acceptable in principal for minor developments to existing buildings subject to normal planning and flood risk assessment (such as small extensions to houses, most changes of use of existing buildings). This land use objective will have overall positive effects with respect to population and human health which would help to maintain the quality of people's lives through high quality environments and ensuring that the flood mitigation measures are considered fully which will directly have positive effects on people and their property.

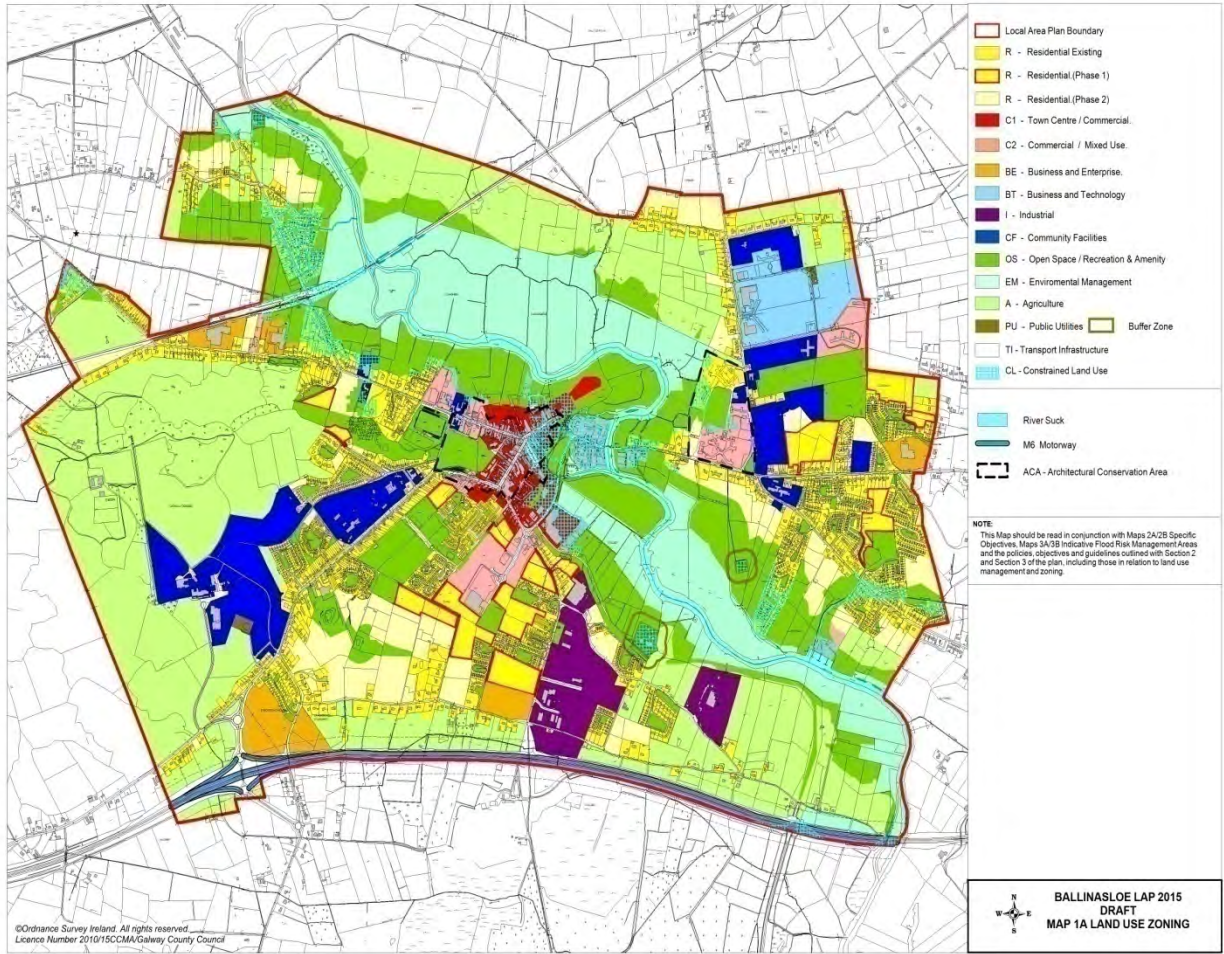


Figure 8.1 Draft Ballinasloe Local Area Plan Land Use Zoning

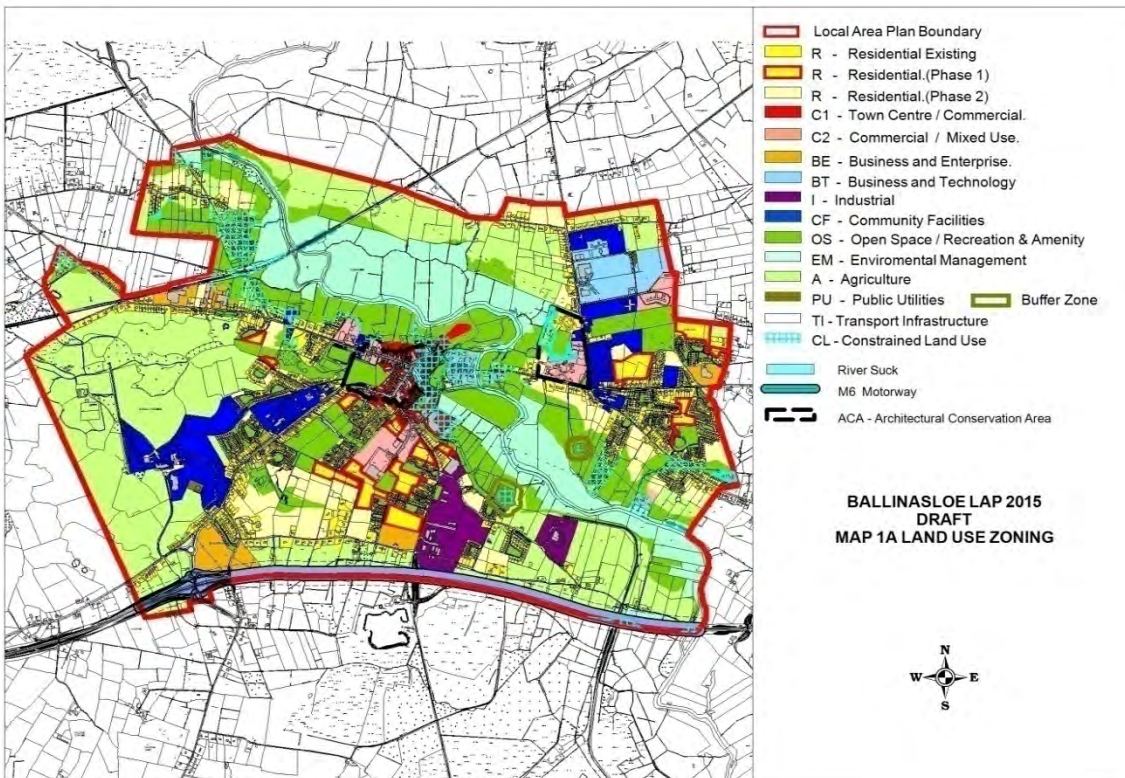
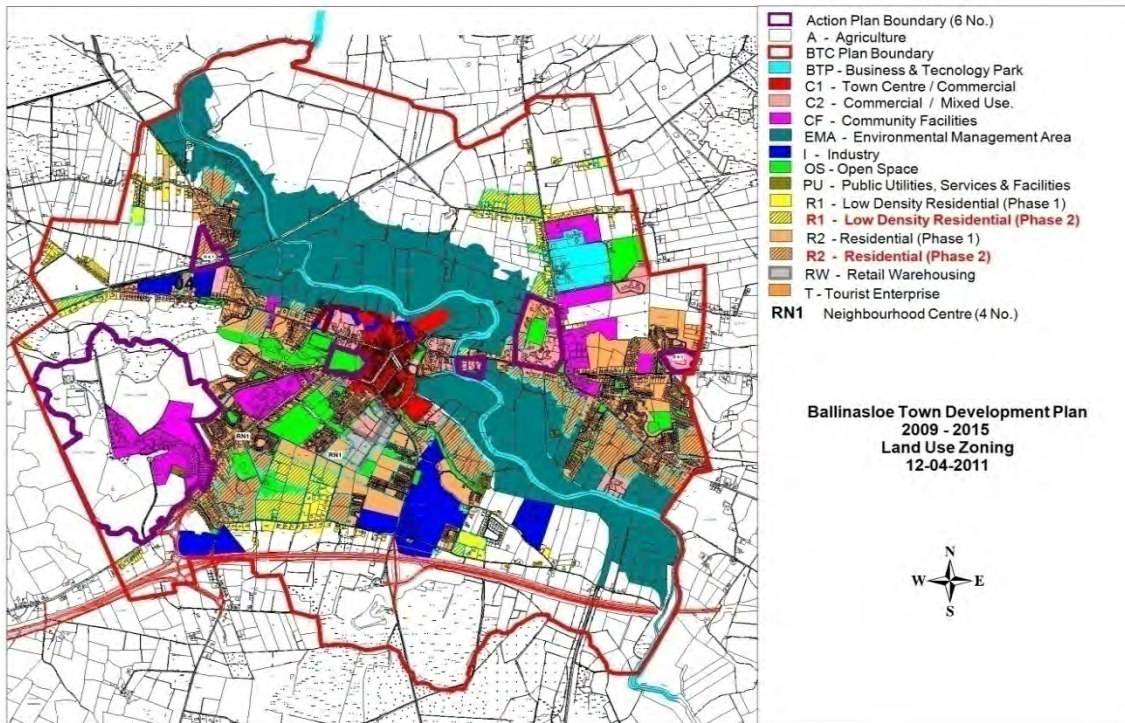


Figure 8.2 Comparison of Land Use Zoning Map 2009-2015(as varied) & Draft Ballinasloe Local Area Plan 2015-2021 Land Use Zoning Map.

8.4 Cumulative/In-combination Effects

Cumulative effects are defined as “effects on the environment that result from incremental changes caused by the strategic action together with other past, present and reasonably foreseeable future actions” (EPA SEA Process Checklist (2011)). In considering cumulative effects it recognises that although effects of an action may be insignificant individually, that cumulatively over a period of time there could be consequent negative environmental effects and impacts. The assessment of cumulative effects is a requirement of the SEA Directive (2001/42/EC).

Potential cumulative and in-combination effects of the Draft Ballinasloe Local Area Plan have been assessed as follows:

- An assessment against other Plans and Programmes; and
- An assessment of the cumulative effects from development arising from the implementation of the Plan.

8.4.1 Legislation

The consideration of cumulative effects is a requirement of the SEA Directive (2001/42/EC). It states under Article 5(1) that an Environmental Report shall be prepared and relevant criteria is provided in Annex I, which states that;

“The likely significant effect (these effects should include secondary, cumulative, synergistic, short, medium and long-term permanent and temporary, positive and negative effects) on the environment, including on issues such as biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above factors”.

Under Article 3(5) of the SEA Directive the determination of likely significant effects is addressed and within this it is stated that Member States shall take into account the relevant criteria within Annex II. Under Annex II (2) it is stated that “characteristics of the effects and of the area likely to be affected, having regard, in particular, to the cumulative nature of the effects”.

8.4.2 Assessment against Other Plans and Programmes

The Draft Ballinasloe Local Area Plan complies with the National Spatial Strategy 2002-2020, the Regional Planning Guidelines for the West Region 2010-2022, Our Sustainable Future – A Framework for Sustainable Development for Ireland (2012) and the National Development Plan 2007-2013 as superseded by the Department of Public Expenditure and Reform document entitled “Infrastructure and Capital Investment 2012-2016”. In accordance with the Planning and Development Act 2000 (as amended) all development proposals must be consistent with the objectives of these higher-level plans and guidelines.

The Core Strategy set out in the County Development Plan provides the policy framework for the Draft Local Area Plan which is in compliance with the Regional Planning Guidelines for the West Region 2010-2022.

The Core Strategy set out in the Galway County Development Plan provides the policy framework for the Local Area Plan which is in turn in compliance with the Regional Planning Guidelines for the West Region 2010-2022. All Regional Planning Guidelines were subject to Strategic Environmental Assessment to assess the potential significant environmental effects of their implementation, in accordance with national and European legislation.

The County Development Plan sets out the strategy for the proper planning and sustainable development of the county which was subject to Strategic Environmental Assessment including the assessment of cumulative effects with regard to the county.

The Draft Ballinasloe Local Area Plan presents the strategy for the Ballinasloe area and it must be in compliance with the Galway County Development Plan.

An assessment against these and other relevant plans and programmes are set out below.

Table 8.1 In –combination Effects with Other Plans and Programmes

Policy,Plan or Programme	Summary of Objectives	Possible Impacts	Risk of significant “in combination” effects with Draft Local Area Plan
Regional Planning Guidelines for the West Region 2010-2022,	The Guidelines seek to ensure a proper balance between settlements in the region with regard to development, population and services. The Guidelines also set out the population targets for the County	No significant environmental impacts including on European sites either within or outside the Plan area as the plan has been subject to SEA and Appropriate Assessment.	No
Galway County Development Plan	This plan aims to facilitate the sustainable development of the county, to conserve the natural and built environment of the county and to improve Galway’s infrastructural requirements.	No significant environmental impacts including on European sites either within or outside the Plan area as the plan has been subject to a full SEA and AA/NIR.	No
Tuam Local Area Plan 2011-2017	This plan aims to facilitate the sustainable development of the county, to conserve the natural and built environment of the county and to improve its infrastructural provision.	No significant impacts as the plan has been subject to SEA and AA requirements.	No
Loughrea Local Area Plan 2012-2018	This plan aims to facilitate the sustainable development of the county, to conserve the natural and built environment of the county and to improve its infrastructural provision.	No significant impacts as the plan has been subject to SEA and AA requirements.	No
Oranmore Local Area Plan 2012-2018	This plan aims to facilitate the sustainable development of the county, to conserve the natural and built environment of the county and to improve its infrastructural provision.	No significant impacts as the plan has been subject to SEA and AA requirements.	No
Athenry Local Area plan	This plan aims to	No significant impacts	No

2012-2018	facilitate the sustainable development of the county, to conserve the natural and built environment of the county and to improve its infrastructural provision.	as the plan has been subject to SEA and AA requirements.	
Craughwell Local Area Plan 2009-2015	This plan aims to facilitate the sustainable development of the county, to conserve the natural and built environment of the county and to improve its infrastructural provision.	No significant impacts as the plan has been subject to SEA and AA requirements.	No
Galway County Heritage Plan 2010-2016	The plan places heritage at the heart of the life of the County through increasing awareness, enjoyment, knowledge and understanding of the shared heritage which aims to ensure the proper management and protection and safeguarding for future generations.	No significant impacts within or outside plan area.	No
Shannon International River Basin District	To protect and enhance surface and groundwater resources and to achieve at least Good Ecological Status in all waterbodies by 2015.	No significant impacts within or outside plan area.	No

Table 8.1 In –combination Effects with Other Plans and Programmes

8.4.3 Assessment of Cumulative Effects of Ballinasloe Local Area Plan 2015-2021

The assessment process has identified a number of issues which have potential cumulative effects and these include:

Single rural houses – potential for long term negative cumulative effects as they pose a threat to designated sites, flood plains and other important habitat areas. An increase in travel patterns to services and employment are likely to increase with an over-reliance on vehicular transport which has implications for air quality and climate change, for quality of life and human health and soil removal on Greenfield locations. There is a potential risk of contamination of the water supply from a proliferation of developments served by individual wastewater treatment units.

Mitigation – To zone the lands outside of the immediate envelope of the town to the extremities of the plan boundary and ensure that the provision for eligibility to build within this zoning is controlled by a specific policy as set out in the Draft Local Area Plan.

Loss of Biodiversity and Flora and Fauna - potential for negative cumulative effects arising from the replacement of semi-natural land covers with artificial surfaces.

Mitigation –To ensure that any proposals for development seek to retain or incorporate natural features into their proposals as set out in the Draft Local Area Plan.

Loss of Trees, Parklands, Woodland and Hedgegrow - There is potential for long-term negative cumulative effects as a consequence off removal of hedgerow, trees as a result of development, which would pose threats to wildlife habitat and commuting corridors and qualifying interests of Natura 2000 Network.

Mitigation - Requirement to protect hedgerows and trees and if removed compensatory planting is required as outlined in objective NH10 of the Local Area Plan.

Loss of Habitats - Due to the disturbance to bird species there is potential for new transportation networks to impact riparian zones and affect Natura 2000 species

Mitigation - Any new linear projects such as trails, greenways or cycle tracks will be subject to Appropriate Assessment.

Section 9 Mitigation Measures

9.1 Introduction

Annex 1 (g) of the SEA Directive requires that the Environmental Report describes the measures envisaged to prevent, reduce and/or offset as fully as possible any significant adverse effects on the environment from implementation of the Local Area Plan. While this section is largely focused on key mitigation measures that should be included in the Local Area Plan, in some cases recommendations are made as to issues that should be considered during the planning process during the lifetime of the Plan. A detailed assessment of policies and objectives within the Plan has been undertaken and proposed mitigation is presented in Table 9.1.

In the preparation of the Draft Ballinasloe Local Area Plan 2015-2021, the SEA and AA processes ran in parallel and the iterative nature of the SEA process in particular has informed and influenced the formulation of the policies, objectives and land-use zonings. A detailed assessment of both the plan objectives and land-use zonings is undertaken in Section 8 of this report. Where mitigation measures were still considered necessary, this resulted in either amendment or addition to wording, inclusion of additional objectives or additions/amendments/removal in the explanatory sub-text of the draft plan. The recommended mitigation measures for the plan objectives are set out in Table 9.1 (indicated in **green font**) and column two of the table indicates whether the measures were incorporated into the Plan.

SEA Recommendations and Suggested Mitigation	Change to the Draft Local Area Plan
Section 2	
In relation to the Land Use Matrix Table: <ul style="list-style-type: none"> • Open for Consideration for Take-Aways in the Residential Areas. This should be "Not Normally Permitted". 	Wording accepted as proposed.
Objective LU 1 – Town Centre/Commercial (C1) (Refer to Maps 1A/1B) Promote the sustainable development of the Town Centre as an intensive, high quality, well-landscaped, human-scaled and accessible environment with an appropriate mix of uses, including residential, commercial, service, tourism, enterprise, public and community uses as appropriate, that provide a range of retail services, facilities and amenities to the local community and visitors to the town. The town centre and associated main streets will remain the primary focus for retail and service activity in Ballinasloe.	Wording accepted as proposed.
Objective LU 2 – Commercial/Mixed Use (C2) (Refer to Maps 1A/1B) Promote the sustainable development of commercial and complementary mixed uses, on suitable lands that can provide focal points for the provision of services to surrounding neighbourhoods/areas and opportunities for commercial enterprises, retail developments and employment creation and which do not undermine the vitality and viability of the town centre.	Wording accepted as proposed.

<p>Objective LU 3 – Residential (R) (Refer to Maps 1A/1B and Objective RD1)</p> <p>Promote a phased, sequential approach on Residential zoned lands, with a strong emphasis on consolidating existing patterns of development, encouraging infill opportunities and promoting sustainable transport options.</p> <p>It is an objective to:</p> <ol style="list-style-type: none"> 1. Promote the development of appropriate and serviced lands to provide for high quality, well laid out and well landscaped sustainable residential communities with an appropriate mix of housing types and densities, together with complementary land uses such as community facilities, local services and public transport facilities, and sustainable transport options to serve the residential population of the area and the surrounding environment; 2. Protect existing residential amenities and facilitate compatible and appropriately designed new infill development, in accordance with the proper planning and sustainable development of the area. <p>A Phasing Scheme shall apply to residential uses on Residential (R) zoned lands, as set out under Objective RD1 in Section 3.2.2.</p>	<p>Wording accepted as proposed.</p>
<p>Objective LU 5 – Business & Technology (BT) (Refer to Maps 1A/1B)</p> <p>Promote the sustainable development of high value business and technology uses to reinforce Ballinasloe’s potential as a growth centre for medium - large, innovative, companies in sectors including, science and technology based industry in life sciences, bio-pharma, IT, internationally traded services and Research and Development. This zoning shall also provide for office park developments, storage facilities and logistics that are ancillary to the primary uses outlined above. Appropriate training facilities, such as Third Level Outreach facilities, may also be considered.</p> <p>The development of inappropriate or non-complementary uses, and which would be more appropriately located on lands zoned as Industrial, Business & Enterprise and Town Centre/Commercial, Commercial/Mixed Use will not normally be permitted within this zoning.</p>	<p>Wording accepted as proposed.</p>
<p>Objective CF 13 – Amenity Network</p> <ol style="list-style-type: none"> (a) Support the establishment of an accessible and sustainable network of greenway linkages and amenities that provide safe and attractive circulation routes for pedestrians and cyclists and for the 	<p>Wording accepted as proposed.</p>

<p>enjoyment and recreational use of the entire community.</p> <p>(b) Galway County Council will also seek to promote the functioning of greenway networks as wildlife corridors and habitats to enhance the biodiversity and the natural environment.</p>	
<p>Objective CF 14 – Linear Park (Indicative Route) (Refer to Maps 2A/2B)</p> <p>(a). Support the sustainable development of a Linear Park including recreational facilities and activities that will benefit the local community and visitors to the area and enhance the tourism infrastructure in an environmentally sustainable manner.</p> <p>(b). Ensure that in particular that all such developments shall not adversely affect habitats and species protected by Article 10 Habitats Directive and that other designated sites and habitats of national, regional or local importance are not adversely affected.</p>	<p>Wording accepted as proposed.</p>
<p>Objective CF 15 – Cycle and Pedestrian Networks</p> <p>(a). Encourage and support the development of a series of cycle and pedestrian routes in the Ballinasloe area and in accordance with the Galway to Dublin Cycle Route and the Townspark Relief Road where feasible and in a sensitive manner, incorporating the streams, rivers, woods, and canal. Indirect impacts on built heritage, natural heritage and designated conservation areas arising from such recreational activities should be duly considered and addressed as part of any proposal.</p> <p>(b). Ensure that in particular that all such development shall not adversely affect habitats and species protected by Article 10 Habitats Directive and that other designated sites and habitats of national, regional or local importance are not adversely affected.</p>	<p>Wording accepted as proposed.</p>
<p>Objective ED 7 – Tourism Development</p> <p>Encourage and facilitate the sustainable development of the tourism potential of Ballinasloe and its environs in a manner that respects, builds on, protects and enhances the cultural, built and natural heritage of the town and the local amenities within the Plan area including natural heritage and biodiversity.</p> <p>Key projects and initiatives that will be supported in this plan shall include:</p> <p>a) Facilitate the sustainable development of</p>	<p>Wording accepted as proposed.</p>

<p>East Galway as a cultural and tourist destination while simultaneously safeguarding its integrity. Promote active collaboration between all stakeholders both in County Galway and adjoining counties and region.</p> <p>b) Collaborate with the Ballinasloe Town Twinning Committee and other tourism agencies in the enhancement and increased economic value of Ballinasloe's town twinning linkages and to create a broader tourist offer within the concept of the 'Fair Towns'.</p> <p>Ensure that in particular all such development shall not adversely affect habitats and species protected by Article 10 of the Habitats Directive and any other sites that maybe considered as stepping stones in support of Natura 2000 sites</p>	
<p>Objective ED 8 – Water-Based Tourism (Refer to Maps 2A/2B)</p> <p>The Council will support, subject to meeting the requirements of relevant Irish Planning and European environmental legislation including the Habitats Directive, the development of the necessary infrastructure and amenities to support water-based tourism within the plan area.</p> <p>The Council shall:</p> <p>a) Collaborate with Waterways Ireland, Fáilte Ireland, other Local Authorities and other relevant agencies in the implementation of 'The Mid Shannon and Lough Ree Product Development Study' which involves waterways and waterside tourism potential and to enhance water-based tourism product along the Shannon Navigation System including Ballinasloe in order to make the town a more attractive inland water tourism destination;</p> <p>b) Continue to promote and enhance the public marina at Slí na hAbhainn as a sustainable marina resource including ancillary facilities and services as appropriate;</p> <p>c) Ensure that in particular that all such development shall not adversely affect habitats and species protected by Article 10 of the Habitats Directive and that other designated sites and habitats of national, regional or local importance are not adversely affected.</p>	<p>Wording accepted as proposed.</p>
<p>Objective ED 12 – Town Centre Viability, Vitality and Vacancy Ensure a balance of development in the town</p>	<p>Wording accepted as proposed.</p>

<p>centre of Ballinasloe so as to revitalise Dunlo Street, Market Square, Society Street and Main Street, and to reduce vacancies and avoid an unbalanced retail pull from these core shopping streets/side streets and the town centre.</p>	
<p>Objective ED 13 – Brownfield Development & Vacancy Encourage the redevelopment of existing brownfield sites within the plan area in order to maximise the sustainable regeneration of underutilized/vacant lands and/or buildings for potential commercial, retail and residential developments.</p>	<p>Wording accepted as proposed.</p>
<p>Objective UD 4 – Green Network and Landscaping (a). Support the development of a network of amenities, open spaces and natural areas that support biodiversity, that incorporate existing landscape features such as local rivers, streams, trees, stone walls and hedgerows. (b). Support the sustainable development of provide pedestrian and cycling linkages and active and passive recreation opportunities, that help to structure and provide relief from the built environment and that can provide areas for surface water attenuation and flood risk management.</p>	<p>Wording accepted as proposed.</p>
<p>Green Infrastructure Green infrastructure can be defined as networks of green areas that provide multiple environmental, social, educational and economic benefits to society and can include open spaces, woodlands, parks, farmland and private gardens. The environmental benefits of identifying a green infrastructure network cannot be underestimated as the protection of natural features like flood plains, wetlands, woodlands and hedgerows provide far-reaching benefits, e.g. in climate change adaptation. Developing a green infrastructure approach can assist with the loss of biodiversity while enhancing an environment in which we live and thereby creating a high quality environment. Comhar Sustainable Development Council publication (2010) “<i>Creating Green Infrastructure for Ireland: Enhancing Natural Capital for Human Wellbeing</i>” sets out how a network of green spaces can be developed to benefit natural heritage and biodiversity as well as the greater economy and society.</p> <p>Invasive Species Non-native species both animal and plants can represent a major threat to local, regional and global biodiversity. Terrestrial and aquatic habitats</p>	<p>Wording accepted as proposed.</p>

<p>can be negatively affected, resulting in significant damage to conservation and economic interests such as agriculture, forestry and civil infrastructure. The <i>Third Schedule of European Communities (Birds & Natural Habitats) Regulations, 2011</i> lists restricted non-native species and Regulation No.49 and No. 50 specifically relate to recognised invasive species.</p> <p>Development proposals must ensure that the presence or absence of invasive alien species has been addressed in accordance with the new European Regulations for the prevention and management of the introduction and spread of Invasive Alien Species (1st Jan 2015) and the EC (Birds and Habitats) Regulations 2011. Where invasive alien species are present on a development site an Invasive Alien Species Management Plan will be required.</p>	
<p>Objective NH 9 - Control of Invasive and Invasive Alien Species Seek to prevent the spread of invasive, and alien invasive alien species and noxious weeds and require a landscaping plan to be produced for developments near water bodies and ensure that such plans do not include invasive species.</p>	Wording accepted as proposed.
<p>Objective NH 12 – Eskers (Refer to Specific Objectives Maps 2A/2B)</p> <ul style="list-style-type: none"> • Assess applications for quarrying and other proposed developments that are in close proximity to eskers that are located within the plan area that have the potential to impact on their landscape, scientific or amenity value; • Recognise that the Eskers in the plan area have unique landscape, scientific and amenity values and ensure that any development proposals should not detract from these values; • Maintain ridge tops of eskers to the south and northwest of the town as areas of open space. 	Wording accepted as proposed.

Table 9.1 Mitigation Measures Proposed as a Result of Assessment of Policies and Objectives

Section 10 Monitoring

10.1 Requirement for Monitoring

Article 10 of the SEA Directive (2001/42/EEC) requires Member States to monitor the significant environmental effects of the implementation of plans *“in order, inter alia, to identify at an early stage unforeseen adverse effects to be able to undertake appropriate remedial action”*. The primary purpose of monitoring is to cross-check significant environmental effects which arise during the implementation stage against those predicted during the plan preparation stage.

The Directive leaves considerable flexibility to Member States in deciding how monitoring shall be arranged, however, it is generally agreed that a mixture of “quantitative and qualitative indicators” are required. The Directive recognises that the monitoring does not necessarily require new research activity and that existing sources of information can be used. In addition, monitoring can be used to identify any information gaps and deficiencies that were identified as part of the SEA process.

Furthermore, Government guidelines state that monitoring should concentrate on the likely significant effects identified in the Environmental Report (DoEHLG, 2004). Monitoring will be based around the Strategic Environmental Objectives, Indicators and Targets. The Strategic Environmental Objectives, Indicators and Targets for the various environmental topics are set out in Table 10.1. The indicators that are used will show changes that would be attributable to the implementation of the Local Area Plan. The indicators chosen are at a level, which is relevant to the Plan and are collated on and reported on by a variety of government agencies including the EPA, NPWS and OPW.

Monitoring proposals must concentrate on likely significant environmental effects, as identified in the Environmental Report, and the measures identified as necessary to prevent, reduce, or offset any significant adverse effects. The indicators/monitoring will act as an early warning sign so that appropriate remedial action is undertaken.

10.2 Responsibilities and Frequency of Reporting

The statutory Chief Executive’s Report on progress in achieving objectives of the Local Area Plan, takes place two years after the adoption of the Plan and “shall include information in relation to the progress on, and the results of monitoring the significant environmental effects of implementation of the Plan”. If a policy or an objective is resulting in a significant adverse effect then a variation may be considered during the lifetime of the Local Area Plan. It is largely the responsibility of Galway County Council to undertake the monitoring and to interpret the monitoring data relevant to Ballinasloe and to deal with unforeseen effects as a result of implementing the Ballinasloe Local Area Plan.

Environmental Component	SEO Objectives	Target	Indicator	Source/Responsibility
Biodiversity, Flora and Fauna	<p>B1: To ensure compliance with the Habitats and Birds Directive with regard to the protection of Natura 2000 Sites and Annexed habitats and Species¹⁵;</p> <p>B2: To ensure the protection, conservation to avoid the loss of diversity and integrity of a broad range of habitats, species and ecological and wildlife corridors and networks (non-designated sites) which provide connectivity between areas of local biodiversity within the Draft Ballinasloe Local Area Plan;</p> <p>B3: Conserve and protect other sites of Nature conservation including NHAs and pNHAs.</p>	<p>B1: Maintenance of favourable conservation status for all habitats and species protected under national and international legislation to be unaffected by implementation of the Plan¹⁶;</p> <p>B2: No significant ecological networks or parts thereof which provide functional connectivity to be lost without remediation resulting from development provided for in the Plan;</p> <p>B3: No net loss of habitat and species.</p>	<p>B1:No significant negative impacts on designated habitats and species of the SPA;</p> <p>B2:Habitat Loss e.g. loss of hedgerow, loss of mature trees, treelines, wooded areas and stone walls; No loss of locally rare species/habitats; No net loss of green linkages/ecological networks especially rivers;</p> <p>B3: Habitat quantity and quality of species.</p>	<ul style="list-style-type: none"> Galway County Council; National Parks and Wildlife'.
Population, Human Health	<p>PHH To protect human health from hazards or nuisances arising from exposure to incompatible land uses.</p>	<p>PHH: No spatial concentrations of health problems arising from environmental factors as a result of implementing the Plan.</p>	<p>PHH: Number of newly constructed developments Population Equivalent input to WWTP;</p> <p>Also see Water and Biodiversity Indicators.</p>	<ul style="list-style-type: none"> Galway County Council.
Soil & Geology	<p>SG1:To prevent pollution and/or contamination of soil;</p> <p>SG2: Conserve, protect and avoid loss of diversity and integrity of designated habitats, geological features, species or their sustaining resources in designated ecological sites.</p>	<p>SG1 & SG2: To minimise reductions in soil extent and hydraulic connectivity;</p> <p>SG1 & SG2: Limit residential development to phase 1 lands.</p>	<p>SG1 & SG2: Area of soil where function and quality is compromised e.g. where soil sealing occurs;</p> <p>SG1 & SG2:Limit net loss of groundwater recharge capability through loss of permeable soil resource.</p>	<ul style="list-style-type: none"> Galway County Council; Environmental Protection Agency.
Water	<p>W1: To maintain and improve, where possible, the status of surface waters;</p>	<p>W1 To improve Biotic Quality Rating (Q Values) and Risk Assessment of Water Bodies;</p>	<p>W1:The Biotic Quality Rating;</p>	<ul style="list-style-type: none"> Galway County Council; Environmental Protection Agency.

¹⁵ 'Annexed habitats and species' refer to those listed under Annex I, II & IV of the EU Habitats Directive and Annex I of the EU Birds Directive.

¹⁶ 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.

	<p>W2: To prevent pollution and contamination of ground water;</p> <p>W3: To comply as appropriate with the Provisions of the Planning System and Flood Risk Management Guidelines for Planning Authorities (DEHLG,2009) and associated Circular PL 2/2014.</p>	<p>W2 No reductions in the Q value in relevant water courses; No change or Improvement in groundwater quality associated with development;</p> <p>% increase in waters achieving “good status” as defined by WFD;</p> <p>W3 No new development in Flood Zone A Developments proposed with Flood Risk Zones to comply with Floods Directive;</p> <p>SUDS in all new developments.</p>	<p>W2 Risk Assessment. Implementation of the Programme of Measures identified under the SERBD River Basin Management Plan; Ensure wastewater collection system capacity is provided either prior to construction of new development or is developed in parallel;</p> <p>W3 Number and area of developments within Flood Risk Zones Ensure that there is no development granted on lands which are outlined in the flood risk assessment as not suitable for development.</p>	
Air and Climatic Factors	<p>AC: To reduce travel related greenhouse emissions to air and to encourage modal change from car to more sustainable forms of transport.</p>	<p>AC Reduce Greenhouse gas emissions in line with 2020 commitments;</p> <p>% Increase in number of people travelling to work and school via public transport.</p>	<p>AC All new development applications within areas at risk of flooding to be accompanied by Flood Risk Assessment;</p> <p>Increase access by households to public transport, including bus and rail services;</p> <p>Increase number of people travelling to work and school via public transport.</p>	<ul style="list-style-type: none"> Galway County Council.
Material Assets	<p>M1: To serve new development with adequate and appropriate waste water treatment;</p> <p>M2: To serve growth areas with drinking water that is both wholesome and clean;</p> <p>M3: Make the best use of existing road and transportation infrastructure.</p>	<p>M1: % Compliance in wastewater discharges from municipal treatment;</p> <p>M2: % Compliance in potable water quality monitoring;</p> <p>M3: Increase in population in urban areas.</p>	<p>M1: % compliance in wastewater discharges from municipal treatment;</p> <p>M2:% compliance in potable water quality monitoring;</p> <p>M3:Maximise development potential within urban envelope in order to reduce travel.</p>	<ul style="list-style-type: none"> Galway County Council.
Cultural Heritage	<p>CH1: To protect the archaeological heritage of the town including entries</p>	<p>CH1:Ensure that the culture heritage of the town is</p>	<p>CH1: % of Protected Structures ‘at risk’;</p>	<ul style="list-style-type: none"> Galway County Council; Buildings at Risk Register,

	<p>to the Record of Monuments and Places and/or their context and Architectural Conservation Areas;</p> <p>CH2: To preserve and protect the special interest and character of the town's architectural heritage.</p>	<p>maintained and protected from damage and deterioration;</p> <p>CH1: Number of monuments on the RMP, impacted by granted planning permissions;</p> <p>CH1: Number of protected structures impacted by development granted planning permission;</p> <p>CH1 & CH2: Number of protected structures that have been demolished because of long term neglect and dereliction.</p>	<p>No. of archaeological sites Investigated;</p> <p>No impact on the fabric or setting of monuments on the Record of Monuments and Places (RMP) by development granted planning permission;</p> <p>No impacts on the architectural heritage value or setting of protected structures by development granted planning permission;</p> <p>CH2: No. of ACAs</p> <p>Protect and preserve features of special interest as included in the RPS, RMP and ACA;</p> <p>CH2: Protect and enhance physical features and areas that contribute to the town's special character and setting.</p>	<p>Heritage Council Ireland.</p>
Landscape	<p>L: To avoid significant adverse impacts on the landscape, especially with regard to landscapes which are most valuable and most sensitive to change and protected focal points and views.</p>	<p>L: Minimal negative impacts on designated landscapes and scenic views, landscape features of local value;</p> <p>L: Number of protected views impacted by development.</p>	<p>L: Number of developments impacting on designated landscapes and scenic views, routes and landscape features of local value;</p> <p>L: No planning permission granted within special qualities of landscapes that materially contravene the policies or objectives of the plan, within the lifetime of the plan;</p> <p>L: No negative alteration to</p> <ul style="list-style-type: none"> Protected views. 	<ul style="list-style-type: none"> Galway County Council.

Table 10.1 Monitoring and Reporting Programme

10.3 Conclusion

The Draft Ballinasloe Local Area Plan sets out an overall strategy, policies and objectives for the period 2015-2021 which seeks to provide for the long term planning and overall benefit of the town. This SEA Environmental Report demonstrates how environmental parameters have been addressed in the Ballinasloe Local Area Plan preparation process to date. Consultation has been undertaken for the Scoping of the Environmental Report, and current baseline information has been described for all SEA parameters. This Environmental Report forms a key part of the consultation process and is accompanied by the Habitats Directive Assessment and Draft Ballinasloe Local Area Plan which is subject to public display. Policies, objectives and land use zonings were assessed in terms of the impacts on the environment and mitigation measures proposed through rewording of the policies/objectives or rezoning where necessary. The mitigation measures proposed for the policies/objectives through the SEA and AA process have been incorporated into the Draft Local Area Plan.

The SEA and Appropriate Assessment (AA) have informed the Draft Local Area Plan through an ongoing iterative process that incorporated environmental considerations and sensitivities throughout the preparation of the plan. The SEA and HDA has been undertaken in line with the Planning and Development (Strategic Environmental Assessment) Regulations 2004 to 2011 (as amended) and the European Union (Natural Habitats) Regulations 94 of 1999, as amended SI 233/1998 and SI 378/2005. Subject to the full and proper implementation of the mitigation measures outlined in this Environmental Report, it is considered that significant adverse impacts on the environment will be avoided.

This Environmental Report, which identifies the likely significant effects on the environment of implementing the plan has been submitted to the Elected Members of Galway County Council for their consideration and should be read in conjunction with the Draft Ballinasloe Local Area Plan. The Environmental Report must be taken account of before adopting the Plan.

Appendix I
SEA MATRIX

	B1	B2	B3	PHH	SG1	SG2	W1	W2	W3	AC	M1	M2	M3	CH1	CH2	L	Comment & Mitigation
Objective TI 15 – Urban Street Network Support the treatment of the route network within the built areas of the town as urban streets that prioritise the needs of pedestrians, that facilitate cyclists wherever possible and that support public and private transport movements, stopping and parking, as appropriate. In this regard, the principles, approaches, and standards set out in the Design Manual for Urban Roads and Streets 2013 (or as updated) shall be applied to new development as appropriate. New developments will be required to facilitate the extension of the urban street network to provide improved connectivity and permeability, particularly for pedestrians and cyclists, where appropriate.																	
Objective TI 16 – Traffic and Transport Assessment (TTA) and Road Safety Audits (RSA) Require all significant development proposals to be accompanied by a Road Safety Audit and Traffic & Transport Assessment carried out by suitably competent consultants, which are assessed in association with their cumulative impact with neighbouring developments on the road network, in accordance with the requirements contained within the NRA's Traffic & Transport Assessment Guidelines, having regard to Road Safety Audits in the NRA document DMRB HD19/12 Road Safety Audit (including any updated/superseding document).																	
Objective TI 17 – Transport Network Improvements Facilitate improvements to the existing transportation network and the implementation of traffic management measures, subject to normal planning and environmental considerations. a) Implement the transport network improvement provisions as set out within the Ballinasloe Town Enhancement Scheme (including any updated/superseding scheme) as resources permit over the plan period; b) Explore the possibility of one way systems/pedestrianisation in the Town Centre including the possibility of different road surfaces and traffic calming methods in order to slow traffic and create a safe environment for pedestrians; c) Continue to implement the provisions of the current Traffic Management Plan for Ballinasloe (and any updated/superseding documents); d) Improve and maintain existing public footpaths within the town as resources permit;																	
Objective TI 18 – Preservation of Routes, Road Upgrades & Infrastructure Provision Prohibit development on lands which are reserved for proposed road/street corridors and associated buffers and where development would affect a route, line, level or layout of any proposed new roadway or any junction required between a proposed and existing road.																	Road Construction may cause significant compaction of soil and may interfere with ecological quality. Facilitates increase in car trips/greenhouse gases. May compromise landscape quality. Significant new road materially inconsistent with SEO to utilise existing infrastructure. Mitigation Measures: DS3,NH1-NH6,Chapter 5,9 & 13 CDP
Objective TI 19 – Noise Require all new proposed development, which is considered to be noise sensitive within 300m of existing, new or planned national roads, or roadways with traffic volumes greater than 8,220AADT, to include a noise assessment and mitigation measures if necessary with their planning application documentation. The cost of mitigation measures shall be borne by the developer. Mitigation measures in order to protect the noise environment of existing residential development will be facilitated or enforced as necessary.																	
Objective TI 20 – Schools Promote and facilitate greater ease of traffic movement and safe routes to schools in partnership with local schools and ensure that schools have safe drop off/collection facilities for pedestrians, cyclists and vehicles and adequate and appropriately located staff parking.																	
Objective TI 21 – Parking Facilities (Refer to Specific Objective Maps 2A/2B & CDP DM Standard 22 - Parking Standards) a) Ensure that existing parking facilities in the town centre and at other existing locations are managed appropriately. b) Provide additional long stay public parking facilities in suitable locations within the plan area to serve the needs of the town in accordance with applicable standards and guidelines at the following locations: • At the proposed public transportation hub/node (site to the south of the railway station); • In the vicinity of Creagh National School; c) Provide disabled car parking facilities at appropriate locations throughout the town and ensure that all new developments have adequate car parking, disabled parking and cycling facilities																	
Objective TI 22 – Traffic Safety and Access Ensure that all new developments are properly located in terms of traffic safety and adequately address issues of traffic safety and access. a) Provide adequate facilities for people with special mobility needs to create a safe and accessible environment by providing parking facilities on ground floor level, tactile crossing points, audio facilities on traffic lights and ramped kerbs. b) Encourage new developments to use existing access junctions that enter onto major traffic routes rather than allowing a proliferation of new individual vehicular access points. c) Require developers to bear the cost of improvements to junctions, road widening and the provision of footpaths in association with public lighting requirements where these will facilitate or benefit the proposed development. Require, where possible, the provision of adequate off-street parking and adequate loading/ unloading facilities as part of each development to ensure that parked vehicles do not cause a traffic hazard, obstruct vehicle or pedestrian movement or create a negative visual impact. Underground car parking will be considered in the Town Centre/Commercial (C1) and within the Commercial/Mixed Use (C2) zoning objectives where it would not conflict with residential amenity, geological, natural heritage, archaeological sensitivities or traffic safety.																	
Objective TI 23 – M6 Galway to Dublin Motorway (Refer to Specific Objective Maps 2A/2B) Protect the section of the M6 Galway to Dublin Motorway which is located within the area covered by the Ballinasloe LAP from future inappropriate development. In this regard the following shall apply: • A building setback of 90m minimum shall be required on each side of the route edge for the M6 Galway to Dublin route in areas where a speed limit greater than 50kph applies. • Prevent new accesses onto the M6 route that have not been accommodated in the motorway design in the interest of traffic safety.																	
Objective TI 24 – Townspark Relief Road (Indicative Access Points) (Refer to Specific Objective Maps 2A/2B) Reserve access points to provide for the Townspark Relief Road to the rear of Main Street and Society Street. The provision of this road shall be in compliance with the EU Habitats Directive, the EIA Directive Flood Risk Management Guidelines for Planning Authorities 2009.																	Road Construction may cause significant compaction of soil and may interfere with ecological quality. Facilitates increase in car trips/greenhouse gases. May compromise landscape quality. Significant new road materially inconsistent with SEO to utilise existing infrastructure. Mitigation Measures: DS3,NH1-NH6,Chapter 5,9 & 13 CDP
Objective TI 25 – Link Roads (Indicative) (Refer to Specific Objective Maps 2A/2B) a. Complete the provision of a link road from Beechlaw Road to Town Centre at Harbour Road and another link road from Brackernagh to Polboy using sections already granted and by determining the final alignment of the remaining sections; b Provide a link road in order to provide clarity on the access arrangements to these lands and to provide a division between Industrial and Residential/other zonings. The road objective will only provide for access to the interchange with the agreement of the NRA, if the access is onto the National Road Network.																	Road Construction may cause significant compaction of soil and may interfere with ecological quality. Facilitates increase in car trips/greenhouse gases. May compromise landscape quality. Significant new road materially inconsistent with SEO to utilise existing infrastructure. Mitigation Measures: DS3,NH1-NH6,Chapter 5,9 & 13 CDP

Appendix II
RELEVANT PLANS, PROGRAMMES AND POLICIES

RELEVANT PLANS, PROGRAMMES AND POLICIES


International/EU Level

Water Framework Directive (2000/60/EC)
 Floods Directive (2007/60/EC)
 SEA Directive (2001/42/EC)
 Bathing Water Directive (2006/7/EC)
 Habitats Directive (92/43/EEC)
 Birds Directive (79/409/EEC)
 Freshwater Fish Directive (78/659/EEC)
 Drinking Water Directive (98/83/EC)
 EIA Directive(85/337/EEC) as amended by Directive 97/11/EC
 Sewage Sludge in Agriculture Directive
 Groundwater Directive (2006/118/EC)
 Urban Waste Water Treatment Directive
 Nitrates Directive
 IPPC Directive
 Waste Framework Directive
 The Environmental Noise Directive (2002/49/EC)
 Convention for the Protection of the Archaeological Heritage of Europe (revised) (Valletta 1992)
 Convention for the Protection of the Architectural Heritage of Europe (Granada 1985)
 Landfill Directive (99/31/EC)
 Soil Thematic Strategy (COM) 2006/231) and proposal for a Soil Framework Directive (COM(2006)(232)

National Level

National Development Plan (as amended)
 National Spatial Strategy 2002-2020
 National Climate Change Strategy
 Climate Change Adaptation and Mitigation Framework
 Government White Paper – Delivering a Sustainable Energy Future for Ireland
 Our Sustainable Future, A Framework for Sustainable Development for Ireland
 “Actions for Biodiversity 2011-2016”, Ireland’s 2nd National Biodiversity Plan
 Flora Protection Order 1999
 The Wildlife Act 1976 and the Wildlife (Amendment) Act 2000
 European Communities (Natural Habitats) Regulations, S.I 94/1997, as amended S.I. 233/1998,S.I. 378/2005
 European Communities (Birds and Natural Habitats) Regulations 2011(S.I. No 477 of 2011)
 National Heritage Plan 2002-2006
 The National Monuments Acts (2004)
 The Architectural Heritage (National Inventory) and Historic Monuments (Miscellaneous Provisions) Act 1999
 Planning and Development Acts 2000(as amended)
 Planning and Development (Strategic Infrastructure) Act 2006
 Sustainable Residential Development in Urban Areas Best Practice Urban Design Manual
 The Planning System and Flood Risk Assessment Guidelines, 2009
 Local Area Plan Guidelines
 Retail Planning Guidelines & Retail Design Manual
 Spatial Planning and National Roads Guidelines’
 Transport 21
 Water Services Investment Programme

Relevant Plans, Programmes



Waste Water Discharge (Authorisation)
Regulations 2007(SI No.684 of 2007)
Surface Water Regulations 2009
Waste Management Act 1996(as amended)

Regional Level

River Basin Management Plans,
Flood Risk Management Plans,
Regional Planning Guidelines for the West
Region 2010-2022,
Water Services Strategic Plans
Regional Waste Management Plans,
Groundwater Protection Schemes,
A Platform for Change Strategy 2000-2016,

Local Level

Galway County Development Plan
Galway County Heritage Plan 2010-2016,
Galway County Council Walking & Cycling Strategy Report 2012
Local Area Plans
Regional Planning Guidelines for the West
Region 2010-2022,
Water Services Investment Programme

Appendix III
SITE SYNOPSIS

SITE SYNOPSIS

Special Protection Areas ⁶

Site Name: Suck River Callows SPA
Site Code: 004097

The Suck River Callows comprise a long, sinuous area of semi-natural lowland wet grassland, which floods extensively each winter along the River Suck between Castlecoote in the north and Shannonbridge in the south, and passing through Ballinasloe.

The River Suck is the largest tributary of the River Shannon. The site follows the river from Castlecoote, near Fuerty to its confluence with the River Shannon, a distance of approximately 70 km of river course. The main habitat is grassland, improved to varying extents, that is seasonally-flooded. The less-improved areas are species-rich. Here the vegetation consists of Common Sedge (*Carex nigra*), Creeping Bent (*Agrostis stolonifera*), Brown Sedge (*Carex disticha*), Marsh Foxtail (*Alopecurus geniculatus*), Reed Canary-grass (*Phalaris arundinacea*), Creeping Buttercup (*Ranunculus repens*), Jointed Rush (*Juncus articulatus*), Common Spikerush (*Eleocharis palustris*) and Floating Sweet-grass (*Glyceria fluitans*). Many of these species are important food plants for the wintering wildfowl which also forage on the improved grasslands within the site. A large area of flooded fen with Black Bog-rush (*Schoenus nigricans*) and Common Reed (*Phragmites australis*) occurs to the north of Derrycahill Bridge. Small patches of Common Club-rush (*Scirpus lacustris*) occur in shallows along the river margin. The grassland is used mainly for pasture but some is also used for silage or occasional hay-making. The site adjoins several raised bogs and cutover bogs, and there are turloughs in the vicinity.

The Suck River Callows is an important site for wintering waterfowl. Of particular note is the internationally important Greenland White-fronted Goose flock that is based along the Suck. The birds congregate mainly in the middle reaches of the river. A separate sub-flock is centred at Glenamaddy turlough. The average maximum winter count for the period 1988/89 to 1993/94 was 386 birds. In recent years, the only complete count of waterfowl for the site was in January 2002. Three species had populations of national importance, i.e. Whooper Swan (124), Wigeon (1,203) and Lapwing (3,640). Other species present included Mute Swan (90), Teal (325), Pintail (5), Curlew (67) and Black-headed Gull (240). Golden Plover, a species that is listed on Annex I of the E.U. Birds Directive, occurs at times. The good quality riverine and grassland habitats are also home to populations of Otter and Irish Hare, and Brown Trout occur in the river.

Arterial drainage in the past has already reduced the area of naturally flooded grasslands, and drainage and land improvement remain the principal threat to this site. The intensification of agriculture in recent years, with earlier mowing and the replacement of hay with silage, is likely to have caused the decline and eventual absence of breeding Corncrake. Wildfowling causes some disturbance, though there is a Wildfowl Sanctuary at Muckanagh, north of Ballyforan.

This site is of considerable ornithological importance on account of the Greenland White-fronted Goose population which is of international significance and which is one of the largest in the country outside of the Wexford Slob. Despite poor survey data for recent years, it is known to support nationally important populations of at least three species, i.e. Whooper Swan, Wigeon and Lapwing. Detailed survey is likely to show that other species also occur in substantial numbers. Of note is that two of the species which occur regularly, Greenland White-fronted Goose and Whooper Swan, are listed on Annex I of the E.U. Birds Directive. (Source: NPWS website; data downloaded August 2014)

⁶ National Parks and Wildlife (2005) *Site Synopsis for Suck River Callows candidate Special Protection Area* Dublin: Government of Ireland

Natural Heritage Areas ⁷

Site Name: Suck River Callows NHA

Site Code: 000222

The Suck River Callows is a long sinuous area of semi-natural lowland wet grassland, which floods extensively each winter along the River Suck between Castlecoote in the north and Shannonbridge in the south, passing through Ballinasloe. The Suck River forms the Roscommon - Galway county boundary and joins the River Shannon at Shannonbridge. Along most of its borders, former raised bogs (now in the process of large-scale harvesting by Bord na Móna) are present. Just south of Ballyforan, there is a small intact raised bog on the eastern bank of the river, which contains both high bog and cutover. This is situated in the townlands of Ballina, Ballyforan, Coolatober and Cloonagh, Co. Roscommon and can be accessed from a road to the east.

The main habitat of the Suck River Callows is flood meadows of wet grassland and the associated aquatic and semi-aquatic habitats of drainage ditches. Secondary habitats of importance, which directly border the callows within the site are species rich dry and wet calcareous grassland, flooded fen, wet woodland and a small raised bog with a tear pool system. There is a semi-natural margin between this raised bog and the river. Improved grasslands are also included within the site at the upper margin of wet grasslands.

The wet grassland vegetation consists of Common Sedge (*Carex nigra*), Creeping Bent (*Agrostis stolonifera*), Brown Sedge (*Carex disticha*), Marsh Foxtail (*Alopecurus geniculatus*), Reed Canary-grass (*Phalaris arundinacea*), Creeping Buttercup (*Ranunculus repens*), Jointed Rush (*Juncus articulatus*), Common Spikerush (*Eleocharis palustris*) and Floating Sweet-grass (*Glyceria fluitans*). Many of these species are important food plants for the wintering wildfowl which also forage on the improved grasslands within the site. A large area of flooded fen with Black Bog-rush (*Schoenus nigricans*) and Common Reed (*Phragmites australis*) occurs to the north of Derrycahill Bridge. Small patches of Common Club-rush (*Scirpus lacustris*) occur in shallows along the river margin.

At Ballyforan the small intact raised bog has been classified as a True Midland Raised Bog. The vegetation of the high bog has been affected by burning and is dominated by Carnation Sedge (*Carex panicea*), Bog Asphodel (*Narthecium ossifragum*), Deergrass (*Scirpus cespitosus*) and Ling Heather (*Calluna vulgaris*), however, there is active Bog Moss (*Sphagnum* spp.) regeneration occurring. Species occurring on the site include *Sphagnum fuscum*, *S. imbricatum* and *S. capillifolium*, *S. cuspidatum* (in elongated tear pools), Great Sundew (*Drosera anglica*), Brown Beak-sedge (*Rhynchospora fusca*) and Lesser Bladderwort (*Utricularia minor*). Cross-leaved Heath (*Erica tetralix*), Bog-rosemary (*Andromeda polifolia*), cottongrasses (*Eriophorum* spp.) and lichens (*Cladonia* spp.) occur in the unburnt areas. The bog appears to be drying out and the western margin has been invaded by Downy Birch (*Betula pubescens*).

At Ballyforan Bog, the cutover to the south of the high bog is primarily reclaimed grassland. There is an uninterrupted transition from this high bog to low-lying callow grassland to the west. Active peat-cutting occurs to the north-west and east with some scrub encroachment on old cutover. There are also small areas of cutover at the margins of the developed (cut-away) raised bogs on the banks of the River Suck. Some of this cutover is very wet, bordering on to floodmeadows and contains permanent pools with Lesser Bladderwort. Royal Fern (*Osmunda regalis*), cottongrasses and orchids (*Dactylorhiza* spp.) have been recorded on these cutover areas. Regenerating birch and Alder (*Alnus glutinosa*) woods occurs on old cutover margins throughout the site. These wetwoodlands have an understory of Ling Heather and Bog-myrtle (*Myrica gale*).

⁷ National Parks and Wildlife (2002) *Site Synopsis for Suck River Callows Proposed Natural Heritage Area* Dublin: Government of Ireland

The Suck River Callows is an important site for wintering waterfowl. Of particular note is the internationally important flock of Greenland White-fronted Geese based along the Suck. The birds congregate mainly in the middle reaches of the river. A separate sub-flock is centred at Glenamaddy turlough. The average maximum winter count for the period 1988/89 to 1993/94 was 386. In recent years, the only complete count of waterfowl for the site was in January 2002. Three species had populations of national importance: Whooper Swan 124, Wigeon 1,203 and Lapwing 3,640. Other species which were present included Mute Swan 90, Teal 325, Pintail 5 and Curlew 67.

Of the species which occur regularly at this site, Greenland White-fronted Geese and Whooper Swan are listed on Annex I of the E.U. Birds Directive. A further Annex I species, Golden Plover, occurs at times. The good quality riverine and grassland habitats are also home to populations of Otter and Irish Hare, and Brown Trout occur in the river.

Current landuses on the site include, agriculture, active peat-cutting, forestry and conservation. The wet grasslands of the callows are used for agriculture. At Ballyforan Bog, active peat-cutting is most prevalent to the north-west and along the eastern margin of the high bog. The cutover to the south has been reclaimed for agriculture. There are extensive areas of peat-cutting by Bord na Móna along the boundaries of the site and a large area of callow and esker has been recently planted with forestry. Damaging activities associated with these landuses include habitat loss and drainage throughout the site and burning of the high bog. These activities have all resulted in the loss of habitat and damage to the hydrological status of the raised bog, and pose a continuing threat to its viability. There is a no-shooting area at Muckanagh, north of Ballyforan.

The Suck River Callows NHA, along with the River Shannon Callows cSAC (216) and River Little Brosna Callows NHA (564), form by far the largest area of lowland wet grassland in Ireland and Britain. These callows are each designated as a Special Protection Area under the E.U. Birds Directive for the presence of Internationally and Nationally Important numbers of wintering waterfowl.

The presence of raised bog is of considerable conservation significance as it is a rare habitat in the E.U. and one that is becoming increasingly scarce and under threat in Ireland. The site supports a good diversity of raised bog microhabitats, including hummocks and pools. Ireland has a high proportion of the total E.U. resource of raised bog (over 50%) and so has a special responsibility for its conservation at an international level. The site is of major ornithological importance. **(Source: NPWS website; data downloaded August 2014)**

Proposed Natural Heritage Areas⁸

Site Name: Ballinasloe Esker

Site Code: 001779

Ballinasloe esker is about 6km long and stretches due west from Ballinasloe roughly along the line of the Galway- Dublin rail-line. The main habitats are a mixed wood and a dry broadleaved semi-natural woodland. The mixed wood consists of Beech (*Fagus sylvatica*) and Sycamore (*Acer pseudoplatanus*) with some Oak (*Quercus robur*) and a grove of Yew (*Taxus baccata*). The dry wood has Ash (*Fraxinus excelsior*), coppiced Hazel (*Corylus avellanus*) and some solitary Oaks (*Quercus robur*). There is a good ground flora present with Early Purple Orchid (*Orchis mascula*) and Primrose (*Primula vulgaris*) common. Wood Anemone (*Anemone nemorosa*) and Lesser Celandine (*Ranunculus ficaria*) are also abundant in places. A freshwater marsh and wet woodland and a small fen also occur on this site with Yellow Flag (*Iris pseudacorus*), Marsh Marigold (*Caltha palustris*) and Horsetail (*Equisetum fluviatile*) present in the marsh and woodland and the fen being dominated by Sedges (*Carex flacca*, *C. panicea*, *C. flava*). The Twayblade (*Listera ovata*) is also present.

⁸ National Parks and Wildlife (unknown) *Site Synopsis for Ballinasloe Esker proposed Natural Heritage Area* Dublin: Government of Ireland

Parts of the esker are grazed by cattle which are causing damage due to trampling in places. Also the size of the esker is being reduced due to quarrying and improvement of grassland by fertilizing and reseeded. Continued quarrying is a threat to this site as is the clearing of mature trees. A good ground flora only occurs in undisturbed regions of the woodland and so will be destroyed if woods cleared. Esker woodlands are scarce in Ireland (" <150 ha in total", Cross 1992) and undisturbed stands with a good ground flora such as occurs on this site (?) are important links with the original woodland. For these reasons it is important to preserve esker woods and so this should be designated as an N.H.A. Site synopsis undated (**Source:** NPWS website; data downloaded August 2014)