

# Appendix

## Strategic Environmental Assessment: SEA Statement & SEA Environmental Report



**Straitéis Iompair na Gaillimhe**  
**Galway Transport Strategy**

# **GALWAY TRANSPORT STRATEGY**

## **Strategic Environmental Assessment**

### **SEA Statement**

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**Galway City Council & Galway County Council**

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## 1.0 Introduction and Background

### 1.1 Introduction

Galway City Council and Galway County Council, in partnership with the National Transport Authority have prepared a Galway Transport Strategy which aims to address the current and future transport requirements of Galway City and its environs, including Bearna, Oranmore, Maigh Cuilinn and Baile Chláir.

As Galway City and its environs continue to develop as the principal economic centre serving the West of Ireland, there is a critical need to address the transportation issues facing the city and surrounding areas at present, and to underpin future growth by establishing a long-term strategy for transport to, across, within and around the city.

While Galway has a compact walkable core, outside of the city centre, the suburbs have developed as a succession of low density residential and employment areas, which has led to a predominance of private car usage as a means of travel. As a result, the transport difficulties currently experienced across the city, particularly at peak travel times, are having a significant effect on the quality of life of residents, and are also impacting on the economic functionality of the city.

The Galway Transport Strategy consists of a number of proposed measures combined under an overall vision *“to create a connected city region driven by smarter mobility”*. The Strategy builds on previous transport studies carried out for the Galway Region, and sets out an overview of the proposed actions and measures for implementation, covering infrastructural, operational and policy elements (as an ‘Integrated Transport Management Programme’). These consolidated proposals provide Galway City and its environs with a clear implementation framework over the next 20 years and will be used to secure funding to deliver projects in a phased manner based on priority needs. Ultimately, the Transport Strategy will underpin the objectives of the current and future Galway City and Galway County Development Plans.

The major components proposed under the Galway Transport Strategy comprise: changes to the traffic network, including provision of a new cross-city link and the N6 Galway City Ring Road (N6 GCRR); an enhanced local public transport network and regional public transport service; provision of the Bearna Greenway, the Galway City to Oranmore Cycleway (part of the Galway to Dublin Cycleway) and the Galway to Oughterard Greenway as well as a range of other additional non-greenway cycling, pedestrian and public realm improvements; and complementary measures.

### 1.2 Scope of the GTS

The Galway Transport Strategy will include specific strategic objectives / measures focused on key areas as outlined below. These key areas include:

<b>Traffic Network -</b>	The reallocation of road space to prioritise walking, cycling, public transport including completion of N6 GCRR and active modes.
<b>Local Public Transport -</b>	Focused on an enhanced, integrated high quality bus service.
<b>Cycling, Walking and Public Realm -</b>	With measures aimed at both primary, secondary and complementary levels.
<b>Complementary Measures -</b>	including education and behavioural change measures and continued investment in Intelligent Transport Solutions (ITS) to increase efficiency, safety and co-ordination across transport networks (Smarter Mobility).

### 1.3 Purpose of the SEA Statement

This document is the Strategic Environmental Assessment (SEA) Statement for the Galway Transport Strategy 2016-2036.

The main purpose of the SEA Statement is to provide information on the decision-making process and to document how environmental considerations, the views of statutory consultees and other submissions received during the consultation phases have been taken into account in the approved Strategy, together with the arrangements put in place for monitoring, thereby bringing more transparency to the decision-making process.

The SEA process thereby assists in and improves the quality of the plan making process by:

- Facilitating the identification and appraisal of alternative strategies;
- Raising awareness of the environmental impacts of the Strategy's implementation; and
- Encouraging the inclusion of measurable targets and indicators to aid monitoring.

### 1.4 Legislative Context

The EU Directive on Strategic Environmental Assessment or SEA (Directive 2001/42/EC) came into force in July 2001. The SEA Directive was subsequently transposed into Irish law through S.I. No. 435 of 2004 (European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 and S.I. No. 436 of 2004 (Planning and Development (Strategic Environmental Assessment) Regulations 2004 as amended by S.I. No. 200 of 2011 (European Communities (Environmental Assessment of Certain Plans and Programmes) (Amendment) Regulations 2011) and S.I. No. 201 of 2011 (Planning and Development (Strategic Environmental Assessment) (Amendment) Regulations 2011) respectively.

Under this legislation member States of the EU are obliged to assess the likely significant environmental effects of plans and programmes prior to their adoption thus providing for the assessment of strategic environmental considerations at an early stage of the decision making process.

*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. The Regulations state that SEA is mandatory for certain plans while screening for SEA is required for other plans that fall below the specified thresholds. Where plans or programmes fall below or outside of the specified thresholds, a screening report is required to be carried out to determine whether the making and implementation of a particular plan will or will not, lead to significant environmental consequences for the plan area.

Article 9 (1) of the SEA Regulations (S.I. No. 435/2004), as amended, states "subject to sub-article (2), an environmental assessment shall be carried out for all plans and programmes

*(a) which are prepared for agriculture, forestry, fisheries, energy, industry, **transport**, waste management, water management, telecommunications, tourism and town and country planning or*

*land use, and which set the framework for future development consent of projects listed in Annexes I and II to the Environmental Impact Assessment Directive,*

*or*

*(b) which are not directly connected with or necessary to the management of a European site but, either individually or in combination with other plans, are likely to have a significant effect on any such site.”*

*Notwithstanding the above, Sections 9. (2) & 9. (3) of the SEA Regulations (S.I. No. 435/2004), as amended, state that:*

*(2) A plan or programme referred to in sub-article (1) (above) which determines the use of a small area at local level or a minor modification to a plan or programme referred to in sub-article (1) shall require an environmental assessment only where the competent authority determines that it is likely to have significant effects on the environment and, for this purpose, the competent authority shall make any necessary determination*

*(3) A competent authority shall determine whether plans and programmes other than those referred to in sub-article (1), which set the framework for future development consent of projects, are likely to have significant effects on the environment.*

Therefore, this assessment has concluded that in accordance with Article 9(3) of S.I. No. 435/2004 - European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004, as amended, that having regard to the relevant criteria as set out in Schedule 1 of S.I. No. 435/2004 - Planning and Development (SEA) Regulations, as amended, that the proposed Galway Transport Strategy should be subject to full Strategic Environmental Assessment because of:

The scale and scope of the proposed Galway Transport Strategy, including its role as a future implementation framework with actions and measures for infrastructural, operational and policy elements over 20 years.

The nature and sensitivity of the receiving environment and the potential for significant impacts (either positive or negative) on biodiversity; population; human health; fauna; flora; soil; water; air; climatic factors; material assets; cultural heritage; landscape and the interrelationship between these factors.

The assessment for Screening for Appropriate Assessment, which found that the proposed Draft Galway Transport Strategy could not be screened out for no potential for likely significant impact on a Natura 2000 site.

## 1.5 SEA Process

The Galway Transport Strategy has undergone Strategic Environmental Assessment, in accordance with the legislation as outlined above. An Environmental Report prepared to accompany the Strategy is submitted for consideration together. The Environmental Report provides an understanding of the consequences for the environment of implementing the GTS as proposed.

Submissions on the GTS and the Environmental Report were evaluated at each stage in the process of making the Strategy. This enabled the proper assessment of the effect of proposed changes and amendments on the environment.

The legislation and guidelines governing the SEA process state that the processes of preparing the GTS, SEA and Appropriate Assessment (AA) should be integrated and prepared in an iterative manner. The Environmental Report (ER) outlines the how the SEA process was carried out in tandem with the preparation of the GTS and its accompanying Stage 2 Appropriate Assessment. The SEA process, which included Strategic Review meetings and SEA/AA/GTS workshops, ensured that the Strategy was informed by environmental considerations from the outset. The SEA team were fully involved in the analysis of development options and were in a position to make suggestions throughout the process of the GTS preparation to ensure that environmental considerations and environmental effects were considered in the formulation of strategic goals and development objectives.

S.I. 435 of 2004 (as amended) sets out the requirements of the SEA Statement as follows:

- how environmental considerations have been integrated into the plan,
- how the following has been taken into account during the preparation of the plan:
  - the environmental report;
  - submissions and observations made on the Draft Plan (Strategy) and Environmental Report; and
  - Consultations with other Member States (if any).
- the reasons for choosing the plan, as adopted, in the light of the other reasonable alternatives dealt with, and
- the measures decided upon to monitor, in accordance with Article 17, the significant environmental effects of implementation of the plan.

The SEA reflects the requirements of the SEA Directive on the assessment of the effects of certain Plans and Programmes on the environment. The following principal sources of guidance that were used during the SEA process and during the preparation of the Environmental Report:

- Integrating Climate Change into Strategic Environmental Assessment in Ireland - A Guidance Note, 2015, Environmental Protection Agency;
- Strategic Environmental Assessment (SEA) Pack, 2013, Environmental Protection Agency;
- Strategic Environmental Assessment (SEA) Checklist - Consultation Draft. January 2008. Environmental Protection Agency;
- GISEA Manual – Consultation Draft. April 2009. Environmental Protection Agency;
- Implementation of SEA Directive (2001/42/EC). Assessment of Certain Plans and Programmes on the Environment. Guidelines for Regional Planning Authorities. November 2004. Department of Environment, Heritage and Local Government;
- Development of Strategic Environmental Assessment (SEA) Methodologies for Plans and Programmes in Ireland. Synthesis Report. 2003. Environmental Protection Agency;
- Guidelines on SEA. Department of Communications, Energy and Natural Resources;
- Article 8 (Decision Making) of EU Directives 2001/42/EC on Strategic Environmental Assessment (SEA) as amended, Circular Letter PL 9/2013. Department of Environment, Community and Local Government;
- SEA Spatial Information Sources, May 2015, Environmental Protection Agency;
- SEA Scoping Guidance Document, 2015, Environmental Protection Agency;
- Further Transposition of EU Directive 2001/42/EC on Strategic Environmental Assessment (SEA) Circular Letter PSSP 6/2011. Department of Environment, Community and Local Government;



- Integrated Biodiversity Impact Assessment – Streamlining AA, SEA and EIA Processes: Practitioner’s Manual. EPA Strive Programme 2007-2013. Strive Report Series No. 106;
- Guidance on Integrating Climate Change and Biodiversity into Strategic Environmental Assessment, European Commission 2013; and
- Guidance on Implementation Of Directive 2001/42/EC, European Commission ([http://ec.europa.eu/environment/archives/eia/pdf/030923\\_sea\\_guidance.pdf](http://ec.europa.eu/environment/archives/eia/pdf/030923_sea_guidance.pdf))

**Figure 1** (below) provides a summary of the integrated nature of the GTS preparation and SEA process.

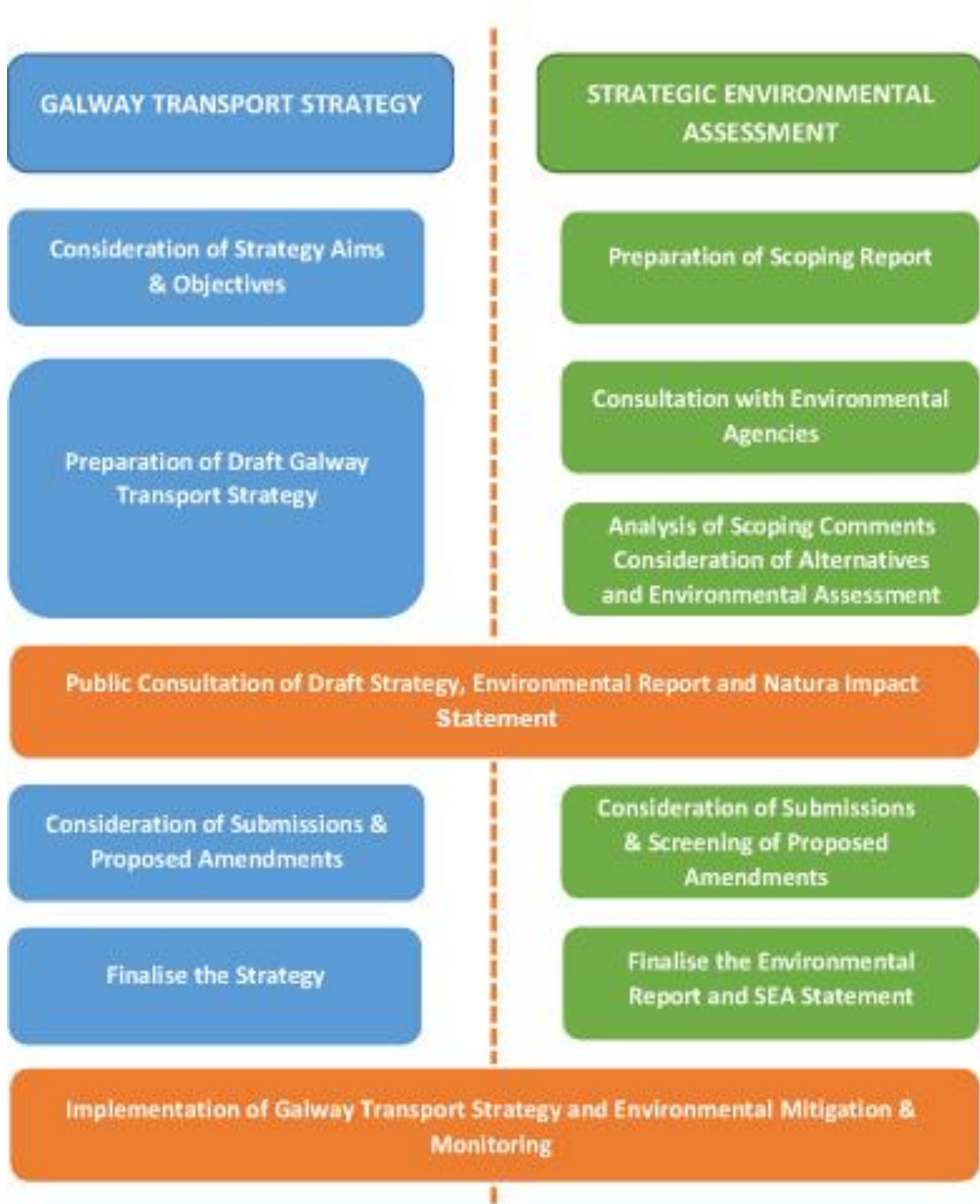


Figure 1: Galway Transport Strategy and SEA Process

## 2.0 Integration of Environmental Considerations into the Plan

### 2.1 Purpose of SEA Statement

Environmental considerations were integrated into the GTS making process at all stages.

This initially comprised reviewing the baseline situation and mapping of environmental constraints and sensitivities so as to identify any new considerations or information available from the baseline situation.

As the GTS developed, environmental considerations were directly considered at a number of stages in the SEA process as set out in Table 2.1.

STAGE	DESCRIPTION
Screening	<p>The screening process is the first stage of the Strategic Environmental Assessment. Screening assesses the need to undertake a Strategic Environmental Assessment.</p> <p>The decision is made after having regard to the relevant criteria as set out in Annex II of the SEA Directive and Schedule 1 of S.I. No. 435/2004 - Planning and Development (SEA) Regulations, as amended, and whether the implementation of the Plan or Programme is likely to have significant effects on the environment. Having regard to the relevant criteria as set out in Schedule 1 of S.I. No. 435/2004 - Planning and Development (SEA) Regulations, as amended, screening concluded that the proposed Galway Transport Strategy should be subject to full Strategic Environmental Assessment</p>
Scoping	<p>Scoping, which is the second stage in the SEA process, allows for determination of the range of key issues, to be addressed in the Environmental Report (Stage 3) as set out in S.I. 435/2004, as amended and in Annex I of the SEA Directive.</p> <p>Scoping ensures that the SEA is focused on the relevant environmental issues and examines issues at the appropriate level of detail. The Scoping Stage also allows for consultation via a Scoping Report with the Statutory Consultees. By highlighting some of the significant issues at an early stage, it ensures that the issues are firmly to the forefront when considering each of the policies and objectives of the Strategy and reduces the possibility of relevant issues not being addressed.</p> <p>A Scoping Report for the GTS was issued to Statutory Consultees.</p>
Consultation with Environmental Authorities	<p>Submissions were received from:</p> <p>Environmental Protection Agency, and Department of Art, Heritage and Gaeltacht.</p> <p>Submissions received from Environmental Authorities were reviewed and incorporated into the SEA process as appropriate.</p>
Preparation of Draft Galway Transport Strategy (GTS) & SEA	<p>A multi-disciplinary team was established to create policy consistent documents and to examine the effects on the environment of implementing the objectives and policies.</p>

STAGE	DESCRIPTION
<b>Environmental Report</b>	Measures and components proposed in the Draft GTS were assessed for potential for environmental impact and the findings recorded in the SEA Environmental Report.  Mitigation measures were drafted and developed and a monitoring programme outlined for the implementation of the GTS
<b>Consultation</b>	The Draft GTS and accompanying Environmental Report, Natura Impact Statement and Strategic Flood Risk Assessment were placed on public display and submissions invited from Statutory Consultees and the general public.
<b>Evaluation of submissions</b>	Evaluation of submissions and observations made on the Draft GTS, Environmental Report, Strategic Flood Risk Assessment and Natura Impact Statement.
<b>Finalisation of the Galway Transport Strategy, Environmental Report &amp; SEA Statement</b>	Finalisation of Galway Transport Strategy and SEA Environmental Report. SEA Statement prepared identifying how environmental considerations and consultations have been integrated into the final Galway Transport Strategy.
<b>Monitoring</b>	Monitoring of significant environmental effects over the lifetime of the Galway Transport Strategy 2016-2036

Table 2.1 Key Stages of SEA

## 2.2 Screening

The assessment for SEA Screening concluded, in accordance with Article 9(3) of S.I. No. 435/2004 - European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004, as amended, and having regard to the relevant criteria as set out in Schedule 1 of S.I. No. 435/2004 - Planning and Development (SEA) Regulations, as amended, that the proposed Galway Transport Strategy should be subject to full Strategic Environmental Assessment because of:

- The scale and scope of the proposed Galway Transport Strategy, including its role as a future implementation framework with actions and measures for infrastructural, operational and policy elements over 20 years
- The nature and sensitivity of the receiving environment and the potential for significant impacts (either positive or negative) on biodiversity; fauna; flora; population; human health; soils and geology; water; air; climatic factors; material assets; cultural heritage; landscape and the interrelationship between these factors, and
- The assessment for Screening for Appropriate Assessment, which found that the proposed Draft Galway Transport Strategy could not be screened out for no potential for likely significant impact on a Natura 2000 site.

## 2.3 Scoping

The Scoping of the GTS was carried out in accordance with Article 5 (4) of the SEA Directive (2001/42/EC).

The principal purpose of the Scoping stage is to decide upon the range of issues and level of detail to be included in the Environmental Report. An overview of the relevant environmental issues requiring further analysis are given and consideration in the Environmental Report and ultimately in the GTS itself. By highlighting some of the significant issues at an early stage, it ensures that the issues are firmly to the forefront when considering each of the policies and objectives of the Plan and reduces the possibility of relevant issues not being addressed.

The scoping aspect involved consultation with the statutory consultees, providing an opportunity to comment on the highlighted issues and the proposed methodology. Under the Planning and Development (Strategic Environmental Assessment) (Amendment) Regulations 2011 the list of statutory consultees includes:

- The Environmental Protection Agency
- The Minister of the Environment, Community and Local Government
- The Minister of Communications, Energy and Natural Resources
- The Minister of Agriculture, Food and the Marine
- The Minister of Arts, Heritage and the Gaeltacht; and
- The surrounding planning authorities of Mayo County Council, Roscommon County Council, Offaly County Council, Tipperary County Council, and Clare County Council.

In compliance with the SEA (Amendment) Regulations, Galway City Council and Galway County Council gave notice to the relevant Environmental Authorities of its intention to prepare a Transport Strategy for the area. A Scoping Report was prepared in order to facilitate consultation with statutory consultees and consultees were requested to review the content of the report and to comment on aspects they believe may require particular emphasis in the Transport Strategy and associated SEA Environmental Report and Appropriate Assessment documentation.

## 2.4 Statutory Consultation

Submissions were received from the following statutory consultees, in response to the Scoping Report:

- Environmental Protection Agency
- Department of Arts, Heritage and the Gaeltacht

Table 2.2 below outlines the issues raised and the response or how the issue was addressed within the preparation of the Environmental Report:

CONSULTEE AND COMMENTS	RESPONSE
<b>Environmental Protection Agency (EPA)</b>	
<p>The EPA acknowledged receipt of the Scoping Report and welcomed the intention to promote the increased use of public transport, cycling and walking within the Draft GTS. The Agency requested that the following be considered in the Draft GTS and SEA:</p> <ul style="list-style-type: none"> <li>• Supporting Achievement of a Low Carbon Economy</li> <li>• Development of Traffic Management measures to address short, medium and long term requirements</li> <li>• Management of noise from infrastructural transport sources</li> </ul>	<p>Comments and suggestions have been incorporated into the Environmental Report</p>

CONSULTEE AND COMMENTS	RESPONSE
<ul style="list-style-type: none"> <li>Protection and improvement of air quality, particularly in areas zoned for increased urban and transport related development</li> <li>Protection where relevant, any designated quiet areas in open countryside that is substantially unaffected by anthropogenic noise</li> </ul> <p>The EPA have also drawn attention to some additional plans and programmes and sources of information.</p>	
<b>Department of Art, Heritage and Gaeltacht</b>	
<p>The DAHG provided a number of recommendations relating to Nature Conservation.</p> <p>Only those elements that are demonstrated to be compliant with the Habitats Directive and Birds Directive, or that can be adequately mitigated, may be incorporated into, or given effect by the Draft GTS.</p> <p>Provide clarification on whether the Strategy is a Statutory or Non-Statutory land use plan is made clear when the Draft GTS goes on display.</p> <p>The National Parks and Wildlife Service website (<a href="http://www.npws.ie">www.npws.ie</a>) is a key source of data, information and publications, including GIS datasets, on nature conservation sites and biodiversity issues of relevance to the Draft GTS and its associated environmental assessments.</p> <p>The response lists key ecological/natural heritage features for Galway City and provides notes on the preparation of an NIS in Appendix 1 of the response.</p> <p>In relation to the SEA Environmental Report, the DAHG note that The Biodiversity, Flora and Fauna section of the SEA should be undertaken by or in conjunction with a suitably qualified ecologist(s), and other specialists as necessary, and in conjunction with the NIS to ensure full integration of biodiversity issues and concerns, particularly in relation to nature conservation sites, protected species, and ecological corridors and stepping stones. The EPA's Integrated Biodiversity Impact Assessment best practice guidance is of particular relevance in this regard.</p> <p>Finally, the report lists sources of information for biodiversity, flora and fauna that should be included in the scope of the SEA.</p>	<p>Comments and suggestions have been incorporated into the Environmental Report</p>

**Table 2.2: Summary of Scoping Comments**

## 2.5 Galway Transport Strategy Consultation

The Draft Galway Transport Strategy was published and placed on public display for 4 weeks, from Monday 13<sup>th</sup> June to Monday 11<sup>th</sup> July 2016, during which time submissions and observations were invited from the public and the interested parties. A total of 19 no. submissions were received, two of which made specific comments and suggestion in relation to the Environmental Report. Changes have been incorporated into the Environmental Report arising from these submissions.

Submissions with regards to the Environmental Report were received and are detailed in Table 2.3 as follows:

CONSULTEE AND COMMENTS	RESPONSE
<b>Environmental Protection Agency (EPA)</b>	
<p>The EPA requested that the following be considered in the SEA:</p> <ul style="list-style-type: none"> <li>Identify parameter to be monitored and frequency of monitoring.</li> </ul>	Comments and suggestions have been incorporated into the Environmental Report
<b>Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs</b>	
<p>The DAHRRG requested that the following be considered in the SEA;</p> <ul style="list-style-type: none"> <li>There are no SEOs in the ER for nature conservation sites; this omission should be addressed.</li> <li>Review Table 8.1 on Interrelationship between Environmental Receptors as certain interrelationships have not been acknowledged in the table.</li> <li>Table 7.1 addresses the Assessment of alternative Scenarios. As there are uncertain impacts against a number of the SEO's on biodiversity, these need to be further assessed to carefully conclude that adverse effects will not result.</li> <li>Potential effects on NHAs (statutory nature conservation sites), proposed NHAs (non-statutory sites), the mapped network of local biodiversity areas, and the known Annex I habitat resource in city area and surrounds, are not included in the assessment, even though data and GIS datasets are available to the Council in all cases. Furthermore, there is no spatial analysis of GTS elements relative to these important ecological receptors and resources in the city, taking the potential effects of land use planning on ecological corridors and stepping stones into account in particular. The potential significant effects on these features should be examined.</li> </ul>	<p>Noted and SEO B1 amended to and incorporate the Environmental Report</p> <p>Noted and revised in the Environmental Report</p> <p>Noted and revised in the Environmental Report</p> <p>Noted and incorporated into the Environmental Report</p>

**Table 2.3: Summary of Submissions relating to Environmental Report**

## 2.6 Environmental Report

The Environmental Report was prepared alongside the GTS process and investigates, describes and evaluates the effects on the receiving environment of implementing the Strategy. The report also assessed and identified development alternatives and identified the environmentally preferred development strategy.

The preparation of the Environmental Report influenced the formulation of the Strategy in a number of distinct ways:

- It encouraged the wide use of background environmental data and formally connects this data to the making of the plan
- It determined the Strategic Environmental Objectives (SEOs) against which the policies and objectives of the plan were assessed.
- The Strategic Environmental Objectives (SEOs) will form the basis for the future on-going monitoring of the GTS.
- It allowed for consultation with the statutory consultees, providing an opportunity to comment on the highlighted issues and the proposed methodology.
- The Environmental Report determined the identified development strategy option which provides the most sustainable and appropriate environmental approach to the future development of the area, when assessed against the Strategic Environmental Objectives.
- It provides greater transparency to the public as to how environmental issues are incorporated and assessed in the plan-making process.

Key issues were identified in the Environmental Report across each of the environmental areas. These were largely based on the environmental baseline and the issues raised during the Scoping stage, as set out in Table 2 above. The full review of key issues is set out in Chapter 4 of the Environmental Report.

The Strategic Environmental Objectives (SEOs) are measures against which the environmental effects of the GTS are tested in order to identify where significant adverse impacts are likely to occur.

## 2.7 *SEA of the Draft GTS*

The GTS was considered for its possible impacts on the environment. The initial stage aimed to ascertain the quality, if any, of the potential impact. Each of the measures and components of the GTS were assessed for their impact and where a neutral or positive impact was noted, no further discussion was provided within the report. This format allowed for the Environmental Report to focus on the negative and uncertain impacts. Thus it provided a more robust and focused approach to understanding the potential impacts associated with the implementation. Where it was determined that measures or components may potentially result in a negative impact on an environmental receptor, appropriate level mitigation measures were identified or proposed.

The assessment informing the GTS was arrived at following both the submissions received during Scoping Consultation in addition to the assessment of the Strategy's measures and components against the established SEO's.

## 2.8 *Consideration of Alternatives*

The SEA Directive requires the consideration of SEA Alternatives. This consideration is outlined in Chapter 7 of the Environmental Report.

Four main alternative transport scenarios were examined in the preparation of the Galway Transport Strategy and assessed against the SEOs established in the SEA.

This assessment was undertaken to identify any potential issues in relation to these alternatives that may not have been identified as part of the initial alternatives assessment ranking procedure. The alternatives reviewed represent choices that are available to the planning authorities in delivering a long term transport strategy across the GTS area.



## 2.9 Mitigation

Section (G) of Schedule 2B of the Planning and Development Regulations 2001 (as amended) requires information on the mitigation measures that will be put in place to minimise/eliminate any significant adverse impacts due to the implementation of the Strategy. Chapter 9 of the Environmental Report highlights the mitigation measures that will be put in place to counter identified significant adverse impacts due to the implementation of the GTS. As stated previously, the formulation of the Strategy and the development of the SEA was an iterative process and therefore it was possible to remove many of the potential negative aspects of the GTS.

Thus the measures and components contained within the GTS are considered robust and environmentally sustainable. Chapter 9 details the mitigation measures necessary to prevent, reduce and, as fully as possible, offset any significant adverse impacts on the environment of implementing the Strategy.

## 2.10 Monitoring

Article 10 of the SEA Directive sets out the requirement that monitoring is to be carried out of the significant environmental effects of the implementation of the GTS in order to identify at an early stage any unforeseen effects and to be able to undertake appropriate remedial action.

Chapter 10 outlines the monitoring requirements for the GTS. Methods of monitoring and indicators of change in the environment have been proposed with set targets to be reviewed over the duration of the Strategy.

While the implementation of the GTS will be subject to monitoring of environmental impact in its own right, it is also considered appropriate that the implementation of the GTS is integrated with the monitoring programme for the Statutory Development Plans for Galway City and County. The monitoring report will include the key findings of the environmental monitoring programme.

## 3.0 Consideration of Alternatives

### 3.1 Introduction

The issue of alternatives is a critical function of the SEA process and is necessary to evaluate the likely environmental consequences of a range of alternative strategies for the transport needs of the study area within the constraints imposed by environmental conditions. The alternatives were considered throughout the process and through an iterative process with the GTS, SEA and AA teams, the most appropriate scenario was selected.

### 3.2 Legislative context

Article 5 of the SEA Directive requires the consideration of reasonable alternatives taking into account the objectives and the geographical scope of the plan or programme and the significant environmental effects of the alternatives proposed. It states under Article 5(1) that;

*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 evaluated. The information to be given for this purpose is referred to in Annex I.*

In accordance with SEA guidelines, the alternatives put forward should be reasonable, realistic and capable of implementation. They should also be in line with the appropriate strategic level at which the Plan will be implemented within the national and county planning hierarchy.

The alternatives proposed have been assessed against the relevant Strategic Environmental Objectives (SEOs) established for the key aspects of the environment likely to be affected by the Strategy's implementation. The evaluation process resulted in the identification of potential impacts and informed the selection of the preferred alternative for the GTS.

### 3.3 Methodology for the Selection of Alternatives

The GTS is based on the principles of sustainable development which means that development will be promoted in accordance with the appropriate international, national, regional and county guidelines.

The four alternatives assessed were:

- Alternative 1: 'Do-minimum' Approach
- Alternative 2: Prioritisation of a Road Transport Based Approach
- Alternative 3: Prioritisation of a Public Transport Based Approach
- Alternative 4: Provision of an Integrated Transport Based Approach

#### *Alternative 1: Do-minimum' Approach.*

A 'Do-minimum' alternative envisages no significant interventions in the existing Galway Transport Network. Specific objectives relating to transportation as set out in the Galway City and County Development Plans, as well as within various Local Area Plans, would continue to be reviewed and implemented on an individual project by project basis. No major changes would occur for existing public transport infrastructure the N6 Galway City Ring Road would not be provided.

Given the continued reliance on private car use and journey time unreliability as a result of limitations on available road space for safe and comfortable cycling and pedestrian movement, it was considered that this approach was a less preferable alternative

### *Alternative 2: Prioritisation of a Road Transport Based Approach*

The road based alternative proposes the proposed N6 Galway City Ring Road as a key component and also includes for upgrades of junctions along the existing N6. The approach does not envisage any major investment on public transport infrastructure.

It is envisaged that the increased road provision and improvements will enhance car and traffic movements, at least initially though no provisions for further improvements to alternative modes of transport including public transport, cyclists and/or pedestrians. Under this alternative, early consideration was also given to the omission of the N6 Galway City Ring Road. However, traffic modelling studies indicated that no appreciable improvement over the 'do-minimum' scenario would be achieved without the increased flexibility and road space that would be generated by provision of the Ring Road. Therefore, this alternative is only a realistic or viable option when it includes provision of the N6 Galway City Ring Road. The advancement on the private road transport alone would lead to a reduction in traffic congestion in the City Centre by approximately 20% but not advance on the opportunity to deliver public transport services.

### *Alternative 3: Prioritisation of a Public Transport Based Approach*

The public transport based alternative seeks to prioritise provision of public transport measures with no further improvement to the road network.

The principal characteristics of this public transport based approach are:

- Provision of a high frequency bus-based cross-city public transport service (with interchange) through the city centre
- Reduction in vehicular movement through the City Centre
- Reduction in the dominance of car-parking within the City
- Re-allocation of road space to public transport in the city centre
- Provision of an interchange between regional and local public transport through an improved transport hub
- Provision of suitable drop off/pick up locations in the City for Tourist/Visitor Coaches
- Expansion of the Bike Share Scheme
- Additional pedestrian crossings at key locations and the development of a public transport and cycling network that is conducive to school travel
- Re-allocation of road space to on-road cycleways to encourage a greater modal shift from the private car to cycling.

Under this alternative, consideration was also given to the provision of a frequent light-rail service. However, this option was considered neither reasonable nor viable. Rail-based systems are generally employed where 'demand' exceeds 3,000 passengers per hour. By contrast, the maximum single directional passenger demand in Galway is approximately 1,100 over a 1-hour period, which is significantly less than the capacity required to provide and maintain an economically-viable sustainable light rail service. A light-rail-based scenario was not considered further in the assessment.

An assessment of the alternatives has shown that an increase in public transport services alone will only increase congestion and delays rendering this approach less optimal than an integrated public and private Transport based approach.

### Alternative 4: Integrated Transport Based Approach

The integration of improvements to the public transport realm, including provision of greenways and cycleways, whilst improving road based transport for private users include a combination of both public and private transport elements. This approach provides for sequential provision of transport related measures which are aimed at reducing existing congestion in order to provide an improved public transport service and improved infrastructure for alternative modes of transport such as walking and cycling.

The effective operational characteristics of this approach will lead to a reduction in private cars travelling through the city centre replaced by a reliable bus service operating on reallocated road space. The reallocation of road space from a car based mode of travel to cycling and walking modes will encourage and facilitate journeys across the city centre by foot and by bicycle.

This approach allows for the inclusion of a new road link to the north of the city, which will be sequentially followed by public transport measures to reduce volumes of traffic on Quincentenary Bridge and Wolfe Tone Bridge.

The medium to long-term outcome of this alternative would allow for the provision of an effective high frequency bus network in Galway City and its environs (with improved priority through the city centre) resulting in both increased public transport usage in the city, improved corridors for alternative modes of transport and reduced congestion on the major river crossings in the city arising from private motor vehicles, thereby providing the most optimal approach to transportation issues in the study area.

### 3.4 Consideration of the SEOs against Alternative Transport Scenarios.

This assessment is undertaken to identify any potential issues in relation to the alternative transport scenarios proposed and to identify which is most suitable. This essentially is a thorough review of the approaches from an environmental perspective. This assessment was used to inform the overall components and measures of the GTS.

**Table 3.1** SEA Assessment of Alternative Scenarios

Assessment against SEA Objectives and Alternative Scenarios				
SEA Objective	Do-Minimum Approach	Prioritisation of Road Transport Based Approach	Prioritisation of Public Transport Based Approach	Integrated Transport Approach
<b>BIODIVERSITY</b>				
B1: Protect, conserve and promote the enhancement of habitats, species and their sustaining resources in international and national designated nature conservation sites, proposed designated nature conservation sites, local biodiversity areas and areas of Annex 1 habitat resource and prevent adverse impacts (direct, cumulative and indirect) from development.	NEUTRAL	UNCERTAIN	NEUTRAL	UNCERTAIN
B2: Protect and conserve rare and threatened habitats and species, including those listed in the Habitats Directive and the Wildlife Acts.	NEUTRAL	UNCERTAIN	NEUTRAL	UNCERTAIN
B3: Protect and enhance the status of aquatic ecosystems and, with regard to their water needs, terrestrial ecosystems and wetlands directly depending on the aquatic ecosystems.	NEUTRAL	UNCERTAIN	NEUTRAL	UNCERTAIN
B4: Protect and conserve the marine environment and promote the appropriate sustainable management of the coastal zone taking cognisance of potential direct, indirect and cumulative impacts on European sites.	NEUTRAL	NEUTRAL	NEUTRAL	UNCERTAIN

B5: Support measures to control and manage alien/invasive species avoiding spreading thereof.	NEUTRAL	UNCERTAIN	NEUTRAL	UNCERTAIN
B6: Avoid adverse effects on vegetation from transport emissions arising from increases in traffic flows.	NEGATIVE	NEGATIVE	POSITIVE	UNCERTAIN
B7: Promote beneficial effects through ecological enhancement interventions along new and existing transport corridors.	NEUTRAL	UNCERTAIN	NEUTRAL	UNCERTAIN
<b>POPULATION</b>				
P1: Promote good quality of life based on high-quality residential, working and recreational environments and on sustainable travel patterns.	NEGATIVE	NEGATIVE	NEUTRAL	POSITIVE
P2: Promote social inclusion and integrated living in the city.	NEGATIVE	NEGATIVE	POSITIVE	POSITIVE
P3: Enhance conditions for people with physical mobility limitations, improving access to and use of transport projects and policy recommendations (e.g. improving physical access to modes of public transport through the provision of lifts, station / stop access ramps, mobile platform ramps etc.).	NEGATIVE	NEGATIVE	NEUTRAL	POSITIVE
<b>HUMAN HEALTH</b>				
H1: To support health improvements and benefits from transport-related activities.	NEGATIVE	NEGATIVE	NEGATIVE	POSITIVE
H2: Improve effects arising from changes in physical fitness and the extent to which people are encouraged to walk and cycle on a regular basis.	NEGATIVE	NEGATIVE	NEGATIVE	POSITIVE
H3: Reduce effects arising from transport-related accidents.	NEGATIVE	NEGATIVE	POSITIVE	POSITIVE
H4: Improve changes in accessibility to employment/economic, social and educational opportunities as accessing these can be detrimental to health.	NEGATIVE	NEGATIVE	NEGATIVE	POSITIVE
H5: Improve potential effects on the quality of life arising from the Strategy (e.g. integrated transport and land use planning/reduced commuting/improved journey times, greater journey reliability, greater journey options, more comfortable journeys etc.).	NEGATIVE	NEGATIVE	POSITIVE	POSITIVE
<b>SOILS AND GEOLOGY</b>				
S1: Maintain the quality of soils.	NEUTRAL	NEGATIVE	NEUTRAL	NEGATIVE
S2: Protect and conserve important City / County geological and geomorphological heritage sites.	NEUTRAL	NEGATIVE	NEUTRAL	NEGATIVE
S3: Maximise the sustainable re-use of brownfield lands, encouraging more compact urban development, rather than developing greenfield lands.	NEUTRAL	NEGATIVE	POSITIVE	UNCERTAIN
S4: Avoid potential negative effects due to developments on important and vulnerable soil resources (e.g. development on prime agricultural land).	NEUTRAL	NEGATIVE	NEUTRAL	NEGATIVE
S5: Minimise the consumption of non-renewable sand, gravel and rock deposits.	NEUTRAL	NEUTRAL	NEUTRAL	NEGATIVE
S6: Avoid increasing increases in riverine and / or coastal erosion.	NEUTRAL	NEUTRAL	NEUTRAL	NEUTRAL
<b>WATER</b>				

W1: Maintain and improve, where possible, the quality of surface water, rivers, lakes and groundwater to meet the requirements of the River Basin Management Plans.	NEGATIVE	NEUTRAL	NEUTRAL	NEUTRAL
W2: Maintain and improve, where possible, the quality of river, transitional and coastal waters, and to prevent the contamination of bathing waters.	NEUTRAL	NEUTRAL	NEUTRAL	NEUTRAL
W3: Support the promotion of water conservation. Avoid discharges of polluting substances to waters.	NEGATIVE	NEUTRAL	NEUTRAL	NEUTRAL
W4: Avoid conflicts with the policies and programmes in relevant River Basin Management Plans (RBMPs) under the Water Framework Directive (WFD) from transport projects and policy recommendations.	NEUTRAL	NEUTRAL	NEUTRAL	UNCERTAIN
W5: Avoid increased risk of flooding (e.g. increased development in areas which may flood, siting of transport projects in areas which may flood).	NEGATIVE	NEGATIVE	NEUTRAL	NEUTRAL
<b>AIR QUALITY &amp; CLIMATE</b>				
A1: Promote beneficial effects on air quality arising from reductions in traffic flows (e.g. arising from modal transfer from car to public transport, walking and cycling).	NEGATIVE	NEGATIVE	POSITIVE	POSITIVE
A2: Avoid adverse effects that may arise in areas where there are increases in traffic flows.	NEGATIVE	NEGATIVE	POSITIVE	POSITIVE
A2: Promote reduction and minimisation of CO <sub>2</sub> transport emissions. (E.g. arising from modal transfer from car to public transport, walking and cycling).	NEGATIVE	NEGATIVE	POSITIVE	UNCERTAIN
A3: Minimise noise and vibration arising from traffic with regard to the Environmental Noise Directive and associated Noise regulations (S.I 140 2006)	NEGATIVE	NEGATIVE	POSITIVE	UNCERTAIN
<b>MATERIAL ASSETS</b>				
M1: Maximise use of the existing built environment in a sustainable and efficient manner.	NEGATIVE	NEGATIVE	NEUTRAL	POSITIVE
M2: Encourage sustainable modes of transport. Promote potential reductions in fuel consumption from reductions in traffic flows (e.g. arising from modal transfer from car to public transport, walking and cycling), contributing to an improved fuel security position.	NEGATIVE	NEGATIVE	NEUTRAL	POSITIVE
M3: Avoid negative effects on public assets (e.g. disruption to utilities from new or improved infrastructure).	NEGATIVE	NEGATIVE	NEUTRAL	UNCERTAIN
M4: Avoid potential adverse effects that may arise in areas where there are increases in traffic flows.	NEGATIVE	NEGATIVE	POSITIVE	UNCERTAIN
M5: Promote waste prevention and minimisation.	NEUTRAL	NEGATIVE	NEUTRAL	NEGATIVE
<b>CULTURAL HERITAGE</b>				
CH1: Promote the protection and conservation of the cultural, built archaeological and linguistic heritage of the city and its environs, and where appropriate enhance character.	NEGATIVE	UNCERTAIN	NEGATIVE	UNCERTAIN
CH2: Avoid potential adverse effects that may arise from increases in traffic flows.	NEGATIVE	NEGATIVE	POSITIVE	POSITIVE
CH3: Avoid potential adverse effects on designated and important sites from land-take for new or improved transport infrastructure.	NEUTRAL	NEGATIVE	NEUTRAL	NEGATIVE

CH4: Promote potential beneficial effects on setting of cultural heritage features ( <i>e.g.</i> townscapes, Conservation Areas, heritage buildings <i>etc.</i> ) arising from reductions in the presence of heavy traffic flows.	NEGATIVE	NEGATIVE	POSITIVE	POSITIVE
	Potential Positive Impact	Potential Neutral Impact	Potential Uncertain Impact	Potential Negative Impact

The potential uncertainties or negative impacts identified in the assessment relate to localised impacts which may occur as a result of development of these alternatives. However these potential uncertainties can be dealt with at planning application stage and are mitigated against by protective policies contained in the Galway City Development Plan 2011-2017, the Draft Galway City Development Plan 2017-2023, the Galway County Development Plan 2015-2021 and mitigation measures outlined in the GTS Natura Impact Statement.

### 3.5 Conclusions

The alternatives reviewed represent choices that are available to the Planning Authorities in facilitating the balance of sustainable transport growth and environmental protection.

The medium to long-term outcome of Alternative 4 would allow for the provision of an effective high frequency bus network in Galway City and its environs (with improved priority through the city centre) resulting in both increased public transport usage in the city, improved corridors for alternative modes of transport and reduced congestion on the major river crossings in the city arising from private motor vehicles, thereby providing the most optimal approach to transportation issues in the study area.

## 4.0 Galway Transport Strategy Monitoring

### 4.1 Introduction

Monitoring of the Strategy and its implications on the environment is paramount to ensure that the environment is not adversely affected through the implementation of the Strategy. Under Article 10 of the SEA Directive, monitoring must be carried out of the significant environmental effects directly related to the implementation of the Plan *“in order to, inter alia, identify at an early stage unforeseen adverse effects and to be able to undertake appropriate remedial action.”* The SEA Guidelines state that monitoring should concentrate on likely significant environmental effects, which have been identified in the Environmental Report, and measures identified as necessary to prevent, reduce and offset any significant adverse effects.

### 4.2 Monitoring Indicators

Base monitoring is proposed on a series of indicators which measure changes in the environment, especially changes which are critical in terms of environmental quality, for example water or air pollution levels. The indicators aim to simplify complex interrelationships and provide information about environmental issues which is easy to understand. A list of environmental indicators is provided in Chapter 10 of the Environmental Report. The indicators are based on the Strategic Environmental Objectives presented in Chapter 6 and have been derived from knowledge of the existing environmental issues within the GTS area and also from legislation, guidelines and higher level Plans.

Environmental indicator assessment during monitoring can show positive, neutral or negative impacts on the environment. Where an indicator value highlights a positive or neutral impact on the environment, it is likely that the policies and objectives of the Strategy are well-defined with regard to the environment. Conversely, where the objectives of the Strategy indicate a negative impact on the environment, it may be necessary to review the detail of the implementation of the particular aspect of the Strategy or to develop a more appropriate and specific some form of mitigation. For example, if an objective or policy is having a significant adverse impact, a change may be considered during the lifetime of the Strategy.



## 5.0 Conclusion

The Galway Transport Strategy, its measures and objectives are key to the development of a sustainable transport system for Galway and its environs, including Bearna, Oranmore, Maigh Cuilinn and Baile Chláir in order to allow Galway City to continue to develop as a principal economic centre serving the West of Ireland. The Strategy aims to provide Galway City and its environs with a clear implementation framework over the next 20 years to deliver transport projects in a phased manner based on priority needs of the Galway.

The Strategic Environmental Assessment process has been carried out in conjunction with the preparation of the Galway Transport Strategy itself. This allows for an early indication of the potential environmental effects likely to occur as a result of the implementation of the Strategy. As a result changes or alterations to the Strategy are made throughout the course of its preparation. Through this process of assessment and re-assessment, it was identified that particular objectives or policies could potentially have a negative environmental impact on particular environmental receptors or indeed on a number of them simultaneously.

In summary, the assessment of the Galway Transport Strategy has concluded that its policies and objectives are acceptable and represent a balanced and fair approach to the sustainable development of Galway City and its environs. Monitoring of the Strategy throughout its lifetime will ensure that any potential adverse environmental impacts, unforeseen at this stage will be identified early, so as to prevent any deterioration of the environment. Therefore, the Strategy, as currently presented, balances the transportation objectives of the city and its environs with environmental protection to deliver a sustainable transport system for the area.

# **GALWAY TRANSPORT STRATEGY**

## **Strategic Environmental Assessment Environmental Report**

**BSM**

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**Brady Shipman  
Martin**

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Strategic  
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**Galway City Council & Galway County Council**

DATE  
**August 2016**

## Contents Amendment Record

This report has been issued and amended as follows:

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## 1.0 Non-Technical Summary

### 1.1 Introduction

The core objective of the SEA process is to assess the Galway Transport Strategy (GTS) in terms of its overall environmental impact, both positive and negative and to indicate where necessary, how improvements can be incorporated to improve its environmental performance.

This section of the Environmental Report is a Non-Technical Summary. The purpose of the Non-Technical Summary is to ensure that the key findings of the Environmental Report are readily understood by both decision makers and the general public. To this end, technical jargon has been avoided where possible.

The Planning and Development Act 2000 (as amended) requires that a Strategic Environmental Assessment (pursuant to the SEA Directive) and an Appropriate Assessment (pursuant to the EU Habitats Directive) be carried out as part of the Galway Transport Strategy process.




The preparation of Galway Transport Strategy 2016-2036 runs in parallel with the Strategic Environmental Assessment (SEA), Appropriate Assessment (AA) and Strategic Flood Risk Assessment (SFRA) which have influenced the drafting of the GTS.



In this regard, environmental considerations have been considered throughout the strategy process and have been incorporated into the GTS ensuring a continuation of a qualitative environment.

### 1.2 Steps in the SEA Process

Table 1.1 below highlights the key stages in the SEA process and the progress made to date:

**Table 1.1: Key Stages in SEA process**

Stage	Description	Status
<b>Scoping</b>	<p>The Scoping of the Draft Galway Transport Strategy was carried out in accordance with Article 5(4) of the SEA Directive (2001/42/EC).</p> <p>The principal purpose of the scoping stage is to decide upon the range of issues to be included in the Environmental Report and level of detail appropriate to each subject. An overview of the relevant environmental issues requiring further analysis are given consideration in the Environmental Report and ultimately in the GTS itself. By highlighting some of the significant issues at an early stage, it ensures that the matters are firmly to the forefront when considering each of the policies and objectives of the Strategy and reduces the potential for relevant issues to be overlooked.</p>	<p>Completed</p> 
<b>Consultation with Statutory Bodies</b>	<p>Submissions have been received from the EPA and Department of Art, Heritage and Gaeltacht.</p>	<p>Completed</p> 
<b>Preparation of Draft Galway Transport Strategy (GTS) &amp; SEA</b>	<ul style="list-style-type: none"> <li>A multi-disciplinary team was established to create policy consistent documents and to examine the effects on the environment of implementing the objectives and policies.</li> </ul>	<p>Completed</p> 

Stage	Description	Status
<b>Environmental Report</b>	<ul style="list-style-type: none"> <li>Objectives created in the Draft GTS were assessed in the Environmental Report and proposed measures for the area examined.</li> <li>Feedback was received throughout the strategy preparation process &amp; Environmental Report preparation.</li> <li>Mitigation measures were discussed and chosen.</li> <li>Monitoring incorporated into existing methods.</li> </ul>	
<b>Consultation</b>	Consultation on the Draft GTS and accompanying Environmental Report, Natura Impact Report and Strategic Flood Risk Assessment.	Completed 
<b>Evaluation of submissions</b>	Evaluation of submissions and observations made on the Draft GTS, Environmental Report, Strategic Flood Risk Assessment and Natura Impact Report.	Completed 
<b>Finalisation of the Galway Transport Strategy, Environmental Report &amp; SEA Statement</b>	Finalisation of Galway Transport Strategy and SEA Environmental Report. SEA Statement prepared identifying how environmental considerations and consultations have been integrated into the final Galway Transport Strategy.	Current Stage
<b>Monitoring</b>	Monitoring of significant environmental effects over the lifetime of the Galway Transport Strategy 2016-2036	Future Stage

### 1.3 Content of Environmental Report

The Environmental Report considers all of the following in accordance with the requirements of the SEA Directive:

1. Biodiversity and Flora & Fauna
2. Population
3. Human Health
4. Soil and Geology
5. Water
6. Air Quality and Climate Change
7. Material Assets
8. Architectural, Archaeological and Cultural Heritage
9. Landscape
10. Interaction of the foregoing

Table 1.2 below summarises the content of the Environmental Report. In the first instance, the Environmental Report details the current condition of the environment of the study area of the GTS under each of the sub-headings set out above, and interrelationships between each of the environmental topics. The Environmental Report examines significant environmental pressures that may affect each of the environmental topics and the current (baseline) condition of the environment.

**Table 1.2: Content of Environmental Report**

Section	Description
1. Non-Technical Summary	A brief summary of the Environmental Report, its main points and conclusions.
2. Introduction & Background	A description of the type of strategy involved and a summary of its key aims and objectives. This section outlines the purpose of the SEA process, SEA requirements, its benefits and how the GTS and Environmental Report have progressed.
3. Methodology	The steps taken in preparation of the SEA, including the methods used and technical difficulties encountered.
4. The Galway Transport Strategy	Broad Overview of GTS Report and Contents
5. Baseline Environment of the Galway Transport Strategy	A description of the current environment of the area of the GTS is given, highlighting any existing environmental problems. This exercise results in a comprehensive baseline against which the likely effects of implementing the GTS can be examined.
6. Strategic Environmental Objectives	A number of environmental protection objectives which have been established at international, EU or national Level and are relevant to the GTS are listed. Following this a description of how the objectives and any environmental considerations have been taken into account in the preparation of the GTS is given.
7. Description of Alternatives	An assessment of proposed development alternatives in the GTS are considered at this stage.
8. Environmental Assessment of the Galway Transport Strategy	An examination of the proposed GTS measures and objectives in terms of their potential effects on the various environmental parameters.
9. Mitigation Measures	Should potentially significant effects be discovered, measures to prevent, reduce or offset these effects are proposed and integrated into the GTS.
10. Galway Transport Strategy Monitoring Programme	Proposals for monitoring the significant effects of the GTS on the environment are put forward. A number of indicators of change and targets are identified and existing monitoring arrangements are utilised.
11. Conclusion	A conclusion with regard to the overall impact on the environment resulting from the implementation of the Galway Transport Strategy.

## 1.4 Policy Context

The preparation of the Galway Transport Strategy must be considered within the context of a hierarchy of policies, plans and strategies of international, national, regional and local level as detailed in Chapter 4 of the Environmental Report. Other relevant plans, policies and programmes were considered in this report and are referenced throughout.



## 1.5 Natura Impact Report

A Natura Impact Statement (NIS) has been prepared in accordance with Article 6 of the EU Habitats Directive and as required under the Planning and Development Acts 2000-2013. The NIS is a separate but parallel process that overlaps significantly with the SEA process in the preparation of the GTS and specifically assesses the potential impact arising from the implementation of the GTS on Natura 2000 Sites.

## 1.6 Strategic Environmental Objectives, Targets and Indicators

Strategic Environmental Objectives (SEOs) assist in the prediction, description and monitoring of impacts on the environment as a result of the GTS. The Strategic Environmental Objectives are environmental protection objectives which have been established at international, EU or national Level, and are relevant to the GTS as set out in Table 1.3 below. The primary source used in the formulating the draft environmental protection objectives is Table 4B of the DEHLG SEA Guidelines for Regional and Planning Authorities (2004). These objectives have been amended and supplemented with additional environmental protection objectives relevant to the Galway Transport Strategy including feedback from Statutory Consultees on the Scoping Report and on the Draft GTS stage.

**Table 1-3: Strategic Environmental Objectives (SEOs)**

Environmental Component	Strategic Environmental Objectives
<b>BIODIVERSITY, FLORA &amp; FAUNA</b>	B1: Protect, conserve and promote the enhancement of habitats, species and their sustaining resources in international and national designated nature conservation sites, proposed designated nature conservation sites, local biodiversity areas and areas of Annex I habitat resource and prevent adverse impacts (direct, cumulative and indirect) from development.
	B2: Protect and conserve rare and threatened habitats and species, including those listed in the Habitats Directive and the Wildlife Acts.
	B3: Protect and enhance the status of aquatic ecosystems and, with regard to their water needs, terrestrial ecosystems and wetlands directly depending on the aquatic ecosystems.
	B4: Protect and conserve the marine environment and promote the appropriate sustainable management of the coastal zone taking cognisance of potential direct, indirect and cumulative impacts on European Sites.
	B5: Support measures to control and manage alien/ invasive species avoiding spreading thereof.
	B6: Avoid adverse effects on vegetation from transport emissions arising from increases in traffic flows.
	B7: Promote beneficial effects through ecological enhancement interventions along new and existing transport corridors.
<b>POPULATION</b>	P1: Promote good quality of life based on high-quality residential, working and recreational environments and on sustainable travel patterns.
	P2: Promote social inclusion and integrated living in the city.
	P3: Enhance conditions for people with physical mobility limitations, improving access to and use of transport projects and policy recommendations (e.g. improving physical access to modes of public

Environmental Component	Strategic Environmental Objectives
	transport through the provision of lifts, station / stop access ramps, mobile platform ramps <i>etc.</i> ).
<b>HUMAN HEALTH</b>	H1: To support health improvements and benefits from transport-related activities.
	H2: Improve effects arising from changes in physical fitness and the extent to which people are encouraged to walk and cycle on a regular basis.
	H3: Reduce effects arising from transport-related accidents.
	H4: Improve changes in accessibility to employment/economic, social and educational opportunities which are key determinants of health.
	H5: Improve potential effects on the quality of life arising from the GTS ( <i>e.g.</i> integrated transport and land use planning/reduced commuting/improved journey times, greater journey reliability, greater journey options, more comfortable journeys <i>etc.</i> ).
<b>SOILS INCLUDING GEOLOGY</b>	S1: Maintain the quality of soils.
	S2: Protect and conserve important City / County geological and geomorphological heritage sites.
	S3: Maximise the sustainable re-use of brownfield lands, encouraging more compact urban development, rather than developing greenfield lands.
	S4: Avoid potential negative effects due to developments on important and vulnerable soil resources ( <i>e.g.</i> development on prime agricultural land).
	S5: Minimise the consumption of non-renewable sand, gravel and rock deposits.
	S6: Avoid increases in riverine and / or coastal erosion.
<b>WATER</b>	W1: Maintain and improve, where possible, the quality of surface water, rivers, lakes and groundwater to meet the requirements of the River Basin Management Plans.
	W2: Maintain and improve, where possible, the quality of river, transitional and coastal waters, and to prevent the contamination of bathing waters. Support the maintenance and improvement of drinking water supplies.
	W3: Support the promotion of water conservation. Avoid discharges of polluting substances to waters.
	W4: Avoid conflicts with the policies and programmes in relevant River Basin Management Plans (RBMPs) under the Water Framework Directive (WFD) from transport projects and policy recommendations.
	W5: Avoid increased risk of flooding ( <i>e.g.</i> increased development in areas which may flood, siting of transport projects in areas which may flood).
<b>AIR QUALITY, CLIMATE &amp; NOISE</b>	A1: Promote beneficial effects on air quality arising from reductions in traffic flows ( <i>e.g.</i> arising from modal transfer from car to public transport, walking and cycling).
	A2: Avoid adverse effects that may arise in areas where there are increases in traffic flows.

Environmental Component	Strategic Environmental Objectives
	A3: Promote reduction and minimisation of CO <sub>2</sub> transport emissions. ( <i>e.g.</i> arising from modal transfer from car to public transport, walking and cycling).
	A4: Minimise noise and vibration arising from traffic with regard to the Environmental Noise Directive and associated Noise regulations (S.I 140 2006)
<b>MATERIAL ASSETS</b>	M1: Maximise use of the existing built environment in a sustainable and efficient manner.
	M2: Encourage sustainable modes of transport. Promote potential reductions in fuel consumption from reductions in traffic flows ( <i>e.g.</i> arising from modal transfer from car to public transport, walking and cycling), contributing to an improved fuel security position.
	M3: Avoid negative effects on public assets ( <i>e.g.</i> disruption to utilities from new or improved infrastructure).
	M4: Avoid potential adverse effects that may arise in areas where there are increases in traffic flows.
	M5: Promote waste prevention and minimisation.
<b>CULTURAL HERITAGE</b>	CH1: Promote the protection and conservation of the cultural, built archaeological and linguistic heritage of the city and its environs, and where appropriate enhance character.
	CH2: Avoid potential adverse effects that may arise from increases in traffic flows.
	CH3: Avoid potential adverse effects on designated and important sites from landtake for new or improved transport infrastructure.
	CH4: Promote potential beneficial effects on setting of cultural heritage features ( <i>e.g.</i> townscapes, Conservation Areas, heritage buildings <i>etc.</i> ) arising from reductions in the presence of heavy traffic flows.
<b>LANDSCAPE</b>	L1: Conserve and enhance the built heritage and landscape features of the city and its environs.
	L2: Avoid adverse effects on the integrity of designated sites and landscape character due to land take for new or improved transport infrastructure.
	L3: Promote potential beneficial effects on landscape and amenity arising from reductions in the presence of heavy traffic flows ( <i>e.g.</i> traffic passing through areas important for their landscape value).
	L4: Promote potential beneficial effects through landscape enhancement interventions along new and existing transport corridors (these measures can be combined with ecological enhancement measures).
	L5: Avoid potential negative effects on landscape due to changes in land use policy arising from initiatives.

## 1.7 Alternative Plan Scenarios

The SEA Directive requires the consideration of SEA Alternatives. This consideration is outlined in Chapter 7 of the Environmental Report.

Four alternatives were considered in the drafting of the SEA and the preparation of the Galway Transport Strategy:

- Alternative Option 1: Do Minimum Approach
- Alternative Option 2: Prioritisation of Road Transport Based Approach
- Alternative Option 3: Prioritisation of Public Transport Based Approach
- Alternative Option 4: Integrated Transport based Approach

Following consideration and assessment of the four alternatives put forward it was concluded that the most preferable outcome from the Alternatives Assessment is Alternative 4, which provides for a high degree of integration between road and public transport based measures as well as for cycling, pedestrian and public realm interventions.

At a strategic level, this approach allows for the inclusion of a new road link to the north of the city, which will be sequentially followed by public transport measures to reduce volumes of traffic on Quincentenary Bridge and Wolfe Tone Bridge.

The proposed N6 Galway City Ring Road (N6 GCRR) to the north of the city can deliver the necessary road capacity whilst also supporting the delivery of sustainable transport measures. The influence of the N6 GCRR on city centre road space will allow for the reallocation of road space previously used by private motor vehicles to be utilised for a public bus network, cyclists and pedestrians. This will allow for the provision of a high frequency bus network with improved priority through the city which can only be achieved through rerouting existing traffic travelling through the city centre to a more suitable orbital route.

The provision of a high frequency bus network in Galway City and its environs (with improved priority through the city centre) in the future would result in both increased public transport usage in the city, but also reduce congestion on the major river crossings.

## 1.8 Evaluation of GTS Provisions

The SEA aims to highlight the potential conflicts, if they are present, between the stated provisions and measures contained in the Strategy with the Strategic Environmental Objectives. Furthermore, the assessment examines the potential impact arising from the implementation of the strategies, policies and objectives on sensitive environmental receptors.

The process of SEA and GTS formulation is an iterative one and environmental considerations have informed all stages of strategy preparation. SEA is carried out in order for the potential for significant adverse effects arising from implementation of the strategy to be minimised. Where the environmental assessment identifies significant adverse effects, consideration is given in the first instance to preventing such impacts. Where prevention is not possible, the strategy seeks to lessen or offset those effects through mitigation measures.

In some instances, there is little or no relationship between the various Strategy policies/objectives and the respective environmental receptor. Where this occurs, no further discussion is deemed necessary. This has been determined through an initial screening of the Galway Transport strategies, policies and objectives which ascertains if policies are likely to have a positive, negative or neutral impact on the environment. This screening process allows the assessment to focus more efficiently on the pertinent issues.

The preliminary phase of this assessment identifies the potential impact on the environment as a result of the measures and provisions of the GTS. Table 8.2 in the Environmental Report highlights where the impact of these measures and provisions may be either potentially positive; neutral; potentially negative; or uncertain. Where a neutral impact is identified, no further discussion is deemed necessary. However,

it is acknowledged that localised issues may arise depending on site specific issues and the measures proposed. The assessment contained in Table 8.2 deals with strategic issues alone. For potential localised impacts, the Mitigation Section contained in Chapter 9 should be consulted.

It has been determined that there are a number of measures/provisions where the impact is potentially negative. The significant issues are discussed in Table 9.1 of this Report. A comprehensive and detailed set of mitigation and protection measures are provided in Chapter 9 which effectively reduce or eliminate potentially negative impacts which have been identified. Similarly, monitoring the implementation of the strategy, as discussed in Chapter 10, will ensure that if any negative impact becomes a reality, it will be identified at an early stage and appropriate actions taken by the relevant authority/agency to remedy the situation.

In general terms, the GTS will have an overall positive effect on the environment as a whole.

## 1.9 Mitigation Measures

While every effort will be taken to ensure that the impact of the Strategy on the environment is neutral to beneficial, certain unavoidable negative impacts may occur as a result of the implementation of the strategy. The Environmental Report details mitigation measures to reduce or eliminate identifiable adverse impacts.

Similarly, monitoring of the Strategy, in accordance with the Planning and Development Act, 2000 (as amended) will incorporate proposals to monitor various environmental receptors. A schedule of monitoring and reporting is proposed in order to ensure that any unforeseen negative impact is identified at the earliest opportunity and subsequently appropriate mitigation measures are put in place to eliminate or at a minimum limit the level of impact to an acceptable degree. Environmental Indicators, as prescribed in the EPA publication “Ireland’s Environment: An Assessment 2012” are provided where relevant to this Strategy and presented as a yardstick against which the success of the GTS can be monitored.

In general terms, all proposals for development will be required to have due regard to the environmental considerations outlined in the GTS. Proposals for development which are deemed contrary to the objectives and policies contained within the Strategy will not normally be permitted, and if permitted, not without the appropriate site and development specific mitigation measures. In addition, certain individual applications for developments within the county may be subject to individual Environmental Impact Assessments and Appropriate Assessments.

## 1.10 Monitoring

Monitoring of the Transport Strategy and its implications on the environment is paramount to ensure that the environment of the strategy area is not adversely affected through the implementation of the strategy.

It is proposed to build monitoring criteria on a series of indicators which measure changes in the environment, especially changes which are critical in terms of environmental quality, for example water or air pollution levels. A list of environmental indicators is provided in Table 10.1 in Section 10 of this Report. The indicators are based on the Strategic Environmental Objectives presented in Chapter 6 and have been derived from knowledge of the existing environmental issues within the study area and also from legislation, guidelines and higher level Plans.

Environmental indicator assessment during monitoring can show potential positive, neutral or negative impacts on the environment. Where an indicator value highlights a potential positive, neutral impact on the environment, it is likely that the policies and objectives of the Strategy are well defined with regard

to the environment. Conversely, where the objectives of the Strategy have a potential negative impact on the environment, it may be necessary to review the objectives of the Strategy or to take some other form of intervention to change the Strategy.

Where significant effects including positive, negative, cumulative and indirect effects have the potential to occur as a result of the undertaking of individual measures or multiple individual measures, such instances should be identified and recorded and should feed into the monitoring evaluation.

## 2.0 Introduction & Background

### 2.1 Introduction to Environmental Report

This report comprises an Environmental Report prepared as part of the Strategic Environmental Assessment (SEA) of the Galway Transport Strategy 2016-2036. The purpose of the Environmental Report is to provide a clear understanding of the likely environmental consequences of decisions regarding the finalisation and implementation of the Galway Transport Strategy.

The SEA is carried out in order to comply with the requirements of the 'SEA Directive' (2001/42/EC) and the provisions of the European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 (Statutory Instrument Number (SI No. 435 of 2004), as amended.

This Environmental Report should be read in conjunction with the Galway Transport Strategy (GTS), Strategic Flood Risk Assessment (SFRA) and the associated Natura Impact Statement (NIS) carried out by Scott Cawley as part of the Stage 2 Appropriate Assessment under the provisions of the EU Habitats Directive (1992/43/EEC).

The Environmental Report has been prepared by Brady Shipman Martin, environmental, planning and landscape consultants.

### 2.2 Strategic Environmental Assessment

Strategic Environmental Assessment (SEA) is the formal, systematic environmental assessment of the likely significant effects of implementing a Plan or Programme (P/P). It is carried out during the preparation period of the Plan or Programme to ensure that the environmental implications of implementing the P/P are taken into account in decision-making prior to the finalisation of the P/P.

#### 2.2.1 SEA Legislative and Guideline Context

The requirement to undertake SEA derives from the 2001 European Community Directive 2001/42/EC (also known as the 'SEA Directive') on the assessment of the effects of certain plans and programmes on the environment. 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 SEA Directive was subsequently transposed into Irish law through:

- **S.I. No. 435 of 2004** (*European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004* as amended by **S.I. No. 200 of 2011** (*European Communities (Environmental Assessment of Certain Plans and Programmes) (Amendment) Regulations 2011*), and
- **S.I. No. 436 of 2004** (*Planning and Development (Strategic Environmental Assessment) Regulations 2004* as amended by **S.I. No. 201 of 2011** (*Planning and Development (Strategic Environmental Assessment) (Amendment) Regulations 2011*) and **S.I. 262 of 2011** (*Planning and Development (Amendment) Regulations 2011*).

The preparation of the Environmental Report for the GTS has had particular regard to the above legislation and to a range of guidance documents on the implementation and practice of SEA, including:

**Environmental Protection Agency**

2016: GISEA Manual 2015.

2015: Development and Assessing Alternatives in Strategic Environmental Assessment (SEA).

2015: Integrating Climate Change into Strategic Environmental Assessment in Ireland – A Guidance Note.

2015: SEA Scoping Guidance Document.

2015: SEA Spatial Information Sources May 2015.

2013: SEA Pack.

2013: Integrated Biodiversity Impact Assessment – Streamlining AA, SEA and EIA Processes: Practitioner’s Manual.

2013: SEA Resource Manual for Local and Regional Planning Authorities – Integration of SEA Legislation and Procedures for Landuse Plans (Draft).

2008: SEA Process Checklist – Consultation Draft.

2003: Development of Strategic Environmental Assessment (SEA) Methodologies for Plans and Programmes in Ireland.

**Department of Environment, Community and Local Government**

2011: Circular Letter PSSP 6/2011: Further Transposition of EU Directive 2001/42/EC on Strategic Environmental Assessment (SEA).

**Department of Environment, Heritage and Local Government**

2008: Circular Letter SEA 1/08 & NPWS 1/08: Appropriate Assessment of Land Use Plans.

2004: Implementation of SEA Directive (2001/42/EC): Guidelines for Regional Authorities and Planning Authorities.

**European Commission**

2003: Implementation of Directive 2001/42 on the assessment of the effects of certain plans and programmes on the environment.

**2.3 Introduction to Galway Transport Strategy**

The Galway Transport Strategy 2016-2036 sets out infrastructural, operational and policy measures proposed in order to provide Galway City and its environs with a clear transport implementation framework over the next 20 years. The Strategy will be used to secure funding to deliver projects in a phased manner based on priority needs. Ultimately, the Strategy will underpin the objectives of the current and future Galway City and Galway County Development Plans.

The overall vision of the GTS, which builds on previous transport studies carried out for the Galway Region, is “*to create a connected city region driven by smarter mobility*”. The principal measures include *interalia*:

- changes to the existing traffic network, including a city centre access network and a new cross-city link
- re-allocation of road space in order to prioritise public transport, cycling and walking
- parking and HGV management
- provision of the N6 Galway City Ring Road (N6 GCRR)



- provision of an integrated public transport network, including an enhanced local bus service and improved regional and intercity bus, coach and rail service
- completion of the Bearna Greenway, the Galway City to Oranmore Cycleway (part of Galway to Dublin Cycleway) and the Galway to Oughterard Greenway (part of Galway to Clifden Greenway)
- additional supports for walking and cycling, including public realm improvements
- a range of complementary measures including smarter mobility, land use integration and behavioural change initiatives.

The GTS has been prepared by Galway Transport Unit, Systra and Arup on behalf of Galway County Council and Galway City Council in partnership with the National Transport Authority (NTA).

## 2.4 Implications for the Strategy

Article 9 of the European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004, as amended, sets out criteria for determining whether SEA should be undertaken on certain types of plans. Considering these criteria, Galway City Council concluded that an SEA was required for the Galway Transport Strategy, as it comprises a 'Plan or Programme', which is likely to have significant environmental effects.

The findings of the SEA are set out in this Environmental Report. These findings have been altered in order to take account of recommendations contained in submissions following public consultation on the Draft GTS and to take account of changes which were made to the GTS on foot of submissions. Galway City Council and Galway County Council also took account of the findings of this Environmental Report during their consideration of the GTS and before it was finalised. An SEA Statement which summarises, inter alia, how environmental considerations have been integrated into the document has also been prepared.

## 3.0 Methodology

### 3.1 Introduction

The methodology used to carry out the Strategic Environmental Assessment (SEA) of the Galway Transport Strategy reflects the requirements of the SEA Directive (2001/42/EC), SEA Regulations (S.I. 435 & 436 of 2004, as amended by S.I. 200 & 201 of 2011 respectively) and various SEA Guidance documentation as noted in sub-section 2.3.2 of this Environmental Report.

The SEA process follows a sequential step by step process as set out in Table 3.1 and the preparation of the GTS is integrated with the SEA and AA processes as illustrated in Figure 3.1.

The SEA process has included for Screening of the Draft GTS to determine the requirement for Strategic Environmental Assessment, and for Scoping with environmental authorities to determine nature and scope of the environmental assessment.

This Environmental Report takes account of the content of SEA scoping submissions from environmental authorities and the environmental impacts of the GTS have been predicted, evaluated and mitigated.

Table 3.1 – Stages in the SEA Process

STAGE	DESCRIPTION
Screening	<p>The screening process is the first stage of the Strategic Environmental Assessment. Screening assesses the need to undertake a Strategic Environmental Assessment.</p> <p>The decision is made after having regard to the relevant criteria as set out in Annex II of the SEA Directive and Schedule 1 of S.I. No. 435/2004 - Planning and Development (SEA) Regulations, as amended, and whether the implementation of the Plan or Programme is likely to have significant effects on the environment. Having regard to the relevant criteria as set out in Schedule 1 of S.I. No. 435/2004 - Planning and Development (SEA) Regulations, as amended, screening concluded that the proposed Galway Transport Strategy should be subject to full Strategic Environmental Assessment</p>
Scoping	<p>Scoping, which is the second stage in the SEA process, allows for determination of the range of key issues, to be addressed in the Environmental Report (Stage 3) as set out in S.I. 435/2004, as amended and in Annex I of the SEA Directive.</p> <p>Scoping ensures that the SEA is focused on the relevant environmental issues and examines issues at the appropriate level of detail. The Scoping Stage also allows for consultation via a Scoping Report with the Statutory Consultees. By highlighting some of the significant issues at an early stage, it ensures that the issues are firmly to the forefront when considering each of the policies and objectives of the Strategy and reduces the possibility of relevant issues not being addressed.</p> <p>A Scoping Report for the GTS was issued to Statutory Consultees.</p>
Consultation with Environmental Authorities	<p>Submissions were received from:</p> <p>Environmental Protection Agency, and Department of Art, Heritage and Gaeltacht.</p> <p>Submissions were reviewed and incorporated into the SEA process as appropriate.</p>

STAGE	DESCRIPTION
Preparation of Draft Galway Transport Strategy (GTS) & SEA Environmental Report	<p>A multi-disciplinary team was established to create policy consistent documents and to examine the effects on the environment of implementing the objectives and policies.</p> <p>Measures and components proposed in the Draft GTS were assessed for potential for environmental impact and the findings recorded in the SEA Environmental Report.</p> <p>Mitigation measures were drafted and developed and a monitoring programme outlined for the implementation of the GTS</p>
Consultation	The Draft GTS and accompanying Environmental Report, Natura Impact Statement and Strategic Flood Risk Assessment were placed on public display and submissions invited from Statutory Consultees and the general public.
Evaluation of submissions	Evaluation of submissions and observations made on the Draft GTS, Environmental Report, Natura Impact Statement and Strategic Flood Risk Assessment.
Finalisation of the Galway Transport Strategy, Environmental Report & SEA Statement	Finalisation of Galway Transport Strategy and SEA Environmental Report. SEA Statement was prepared identifying how environmental considerations and consultations have been integrated into the final Galway Transport Strategy.
Monitoring	Monitoring of significant environmental effects over the lifetime of the Galway Transport Strategy 2016-2036.

### 3.2 SEA Screening

The assessment for SEA Screening concluded, in accordance with Article 9(3) of S.I. No. 435/2004 - European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004, as amended, and having regard to the relevant criteria as set out in Schedule 1 of S.I. No. 435/2004 - Planning and Development (SEA) Regulations, as amended, that the proposed Galway Transport Strategy should be subject to full Strategic Environmental Assessment because of:

- The scale and scope of the proposed Galway Transport Strategy, including its role as a future implementation framework with actions and measures for infrastructural, operational and policy elements over 20 years
- The nature and sensitivity of the receiving environment and the potential for significant impacts (either positive or negative) on biodiversity; fauna; flora; population; human health; soils and geology; water; air; climatic factors; material assets; cultural heritage; landscape and the interrelationship between these factors, and
- The assessment for Screening for Appropriate Assessment, which found that the proposed Draft Galway Transport Strategy could not be screened out for no potential for likely significant impact on a Natura 2000 Site.

### 3.3 Scoping

SEA Scoping allows for determination of the range of key issues, to be addressed in the environmental assessment and detailed in the Environmental Report. Scoping took place with the following environmental authorities:

- the Environmental Protection Agency
- the Minister of the Environment, Community and Local Government
- the Minister of Communications, Energy and Natural Resources
- the Minister of Agriculture, Food and the Marine
- the Minister of Arts, Heritage and the Gaeltacht
- the surrounding planning authorities of Mayo County Council, Roscommon County Council, Offaly County Council, Tipperary County Council, and Clare County Council

#### 3.3.1 Scoping Responses

Submissions were received from the following statutory consultees:

- Environmental Protection Agency
- Department of Art, Heritage and Gaeltacht

Table 3.2 below outlines the issues raised in submissions and the response and how these issues have been addressed within the preparation of the Environmental Report.

Table 3.2 – Summary of Scoping Submissions

CONSULTEE AND COMMENTS	RESPONSE
<b>Environmental Protection Agency (EPA)</b>	
<p>The EPA acknowledged receipt of the Scoping Report and welcomed the intention to promote the increased use of public transport, cycling and walking within the Draft GTS. The Agency requested that the following be considered in the Draft GTS and SEA:</p> <ul style="list-style-type: none"> <li>• Supporting Achievement of a Low Carbon Economy</li> <li>• Development of Traffic Management measures to address short, medium and long term requirements</li> <li>• Management of noise from infrastructural transport sources</li> <li>• Protection and improvement of air quality, particularly in areas zoned for increased urban and transport related development</li> <li>• Protection where relevant, any designated quiet areas in open countryside that is substantially unaffected by anthropogenic noise</li> </ul> <p>The EPA have also drawn attention to some additional plans and programmes and sources of information.</p>	<p>Comments and suggestions have been incorporated into the Environmental Report</p>

**Department of Art, Heritage and Gaeltacht (now Department of Regional Development, Rural Affairs, Arts & the Gaeltacht)**

The DAHG provided a number of recommendations relating to Nature Conservation.

Only those elements that are demonstrated to be compliant with the Habitats Directive and Birds Directive, or that can be adequately mitigated, may be incorporated into, or given effect by the Draft GTS.

Provide clarification on whether the Strategy is a Statutory or Non-Statutory land use plan is made clear when the Draft GTS goes on display.

The National Parks and Wildlife Service website ([www.npws.ie](http://www.npws.ie)) is a key source of data, information and publications, including GIS datasets, on nature conservation sites and biodiversity issues of relevance to the Draft GTS and its associated environmental assessments.

The response lists key ecological/natural heritage features for Galway City and provides notes on the preparation of an NIS in Appendix 1 of the response.

In relation to the SEA Environmental Report, the DAHG note that The Biodiversity, Flora and Fauna section of the SEA should be undertaken by or in conjunction with a suitably qualified ecologist(s), and other specialists as necessary, and in conjunction with the NIS to ensure full integration of biodiversity issues and concerns, particularly in relation to nature conservation sites, protected species, and ecological corridors and stepping stones. The EPA's Integrated Biodiversity Impact Assessment best practice guidance is of particular relevance in this regard.

Finally, the report lists sources of information for biodiversity, flora and fauna that should be included in the scope of the SEA.

Comments and suggestions have been incorporated into the Environmental Report

### 3.4 Environmental Report

The type of information to be provided in the Environmental Report is set out in Annex I of the SEA Directive - reproduced in Schedule 2B of the Planning and Development Regulations 2001 (as inserted by article 12 of the Planning and Development (Strategic Environmental Assessment) Regulations 2004). This report contains the sections as outlined in Table 3.3.

In the SEA Environmental Report, which was placed on public display alongside the Draft GTS, the likely environmental effects of the Draft GTS and the alternatives were predicted and their significance evaluated. The Environmental Report provided stakeholders and the public with a clear understanding of the likely environmental consequences of implementing the GTS.

Mitigation measures to prevent or reduce potential negative effects posed by the GTS are identified in Section 9 and have been integrated into the GTS.

The Environmental Report was updated in order to take account of recommendations contained in submissions and in order to take account of changes made to the original Draft GTS that was placed on public display.

No significant difficulties have been encountered during the undertaking of the assessment.

**Table 3.3: SEA Report Structure**

SECTION	DESCRIPTION
Non-Technical Summary	A brief summary of the Environmental Report, its main points and conclusions.
Introduction & Background	This section outlines the purpose of the Environmental Report and Strategic Environmental Assessment as well as providing a brief description of the Galway Transport Strategy.
SEA Process	The steps taken in Strategic Environmental Assessment and in the preparation of the Environmental Report, including the methods used and technical difficulties encountered.
The Draft Galway Transport Strategy	Overview of Galway Transport Strategy, its contents, and measures.
Baseline Environment	A description of the current environment of the area of the GTS is given, highlighting any existing environmental problems. This exercise results in a comprehensive baseline against which the likely effects of implementing the Draft GTS can be examined.
Strategic Environmental Objectives	A number of environmental protection objectives which have been established at international, EU or national Level and are relevant to the GTS are listed. Following this a description of how the objectives and any environmental considerations have been taken into account in the preparation of the GTS is given.
Alternatives	An assessment of proposed alternatives to the approach as set out in the GTS are considered and assessed.
Environmental Assessment	An examination of the measures and objectives of the GTS in terms of their potential effects on the various Environmental parameters.
Mitigation Measures	Should potentially significant effects be discovered, measures to prevent, reduce or offset these effects are proposed and integrated into the GTS, as appropriate.
Monitoring	Proposals for monitoring the significant effects of the GTS on the environment are put forward. A number of indicators of change and targets are identified and existing monitoring arrangements are utilised.
Conclusion	A conclusion with regard to the overall impact on the environment resulting from the implementation of the Galway Transport Strategy.

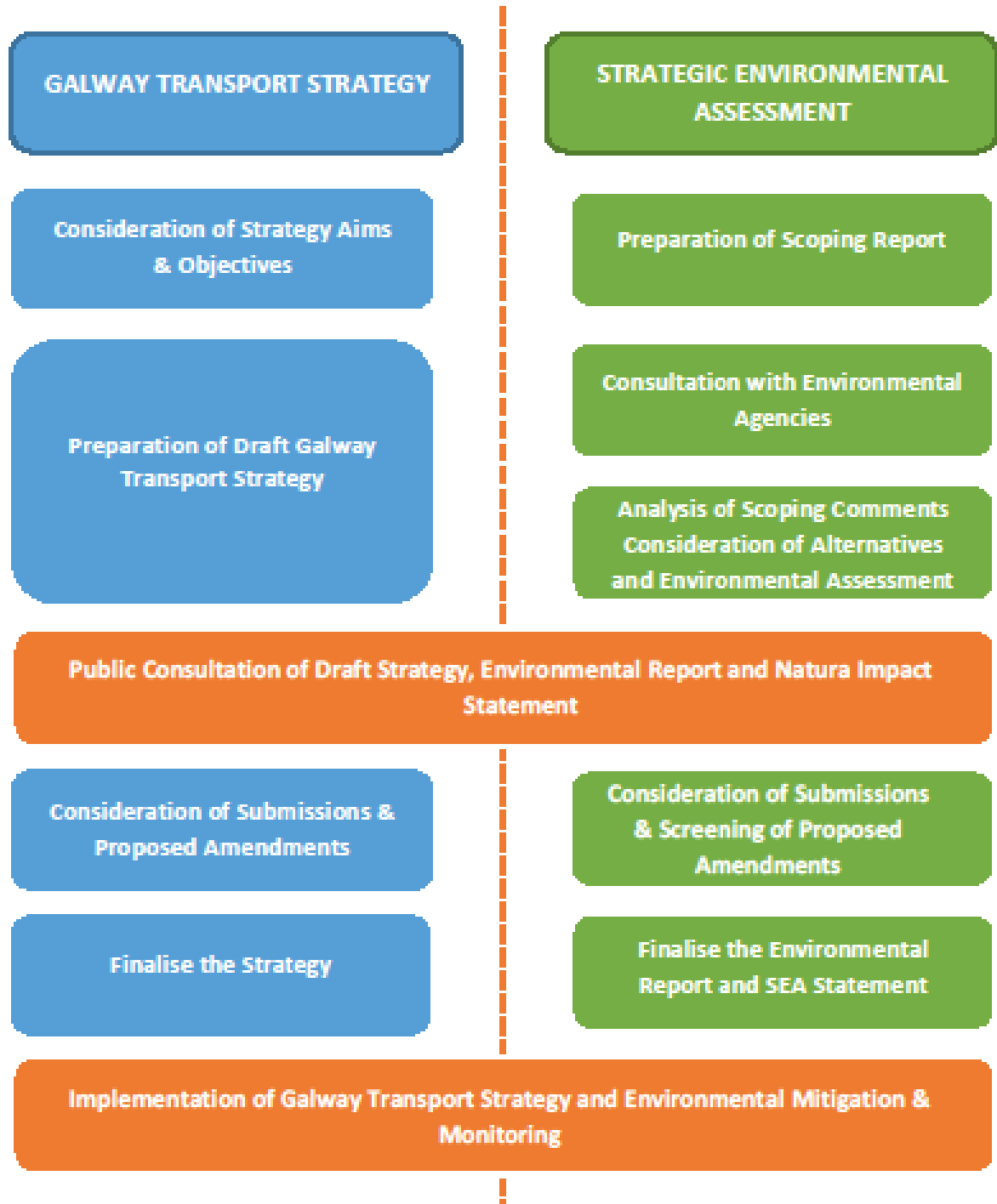


Figure 3.1 Outline of Draft Galway Transport Strategy and integration with SEA Process

3.4.1 Statutory Consultation

Following a public display of the Environmental Report alongside the Draft GTS, NIS and SFRA, submissions with comments relating to the Environmental Report were received from the following statutory bodies:

- Environmental Protection Agency
- Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs

CONSULTEE AND COMMENTS	RESPONSE
<b>Environmental Protection Agency (EPA)</b>	
<p>The EPA requested that the following be considered in the SEA:</p> <ul style="list-style-type: none"> <li>Identify parameter to be monitored and frequency of monitoring.</li> </ul>	Comments and suggestions have been incorporated into the Environmental Report
<b>Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs</b>	
<p>The DAHRRG requested that the following be considered in the SEA:</p> <ul style="list-style-type: none"> <li>There are no SEOs in the ER for nature conservation sites; this omission should be addressed.</li> <li>Review Table 8.1 on Interrelationship between Environmental Receptors as certain interrelationships have not been acknowledged in the table.</li> <li>Table 7.1 addresses the Assessment of alternative Scenarios. As there are uncertain impacts against a number of the SEO's on biodiversity, these need to be further assessed to carefully conclude that adverse effects will not result.</li> <li>Potential effects on NHAs (statutory nature conservation sites), proposed NHAs (non-statutory sites), the mapped network of local biodiversity areas, and the known Annex I habitat resource in city area and surrounds, are not included in the assessment, even though data and GIS datasets are available to the Council in all cases. Furthermore, there is no spatial analysis of GTS elements relative to these important ecological receptors and resources in the city, taking the potential effects of land use planning on ecological corridors and stepping stones into account in particular. The potential significant effects on these features should be examined.</li> </ul>	<p>Noted and SEO B1 amended to and incorporate the Environmental Report</p> <p>Noted and revised in the Environmental Report</p> <p>Noted and revised in the Environmental Report</p> <p>Noted and incorporated into the Environmental Report</p>

### 3.5 SEA Statement

An SEA Statement has been prepared to include information on:

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



### 3.4 Natura Impact Statement (NIS)

A Natura Impact Statement (NIS) has been prepared in accordance with Article 6 of the EU Habitats Directive and as required under the Planning and Development Act 2000, as amended. Preparation of the NIS is a separate but parallel process that overlaps significantly with the SEA process and the preparation of the GTS and specifically assesses the potential impact arising from the implementation of the Plan on European Sites (Natura 2000 Sites).

### 3.5 Strategic Flood Risk Assessment (SFRA)

A Strategic Flood Risk Assessment (SFRA) has been carried out. The findings of the SFRA were considered in the preparation of the Environmental Report.

## 4.0 The Galway Transport Strategy

### 4.1 Introduction and Background

Galway City Council and Galway County Council, in partnership with the National Transport Authority, have prepared a Galway Transport Strategy which aims to address the current and future transport requirements of the Galway City Council administrative area, and the surrounding hinterland within the Galway County Council administrative area, including consideration of connectivity with the settlements of Bearna, Oranmore, Maigh Cuilinn, and Baile Chláir.

As Galway City and its environs continue to develop as the principal economic centre serving the West of Ireland, there is a critical need to address the transportation issues facing the city and surrounding areas at present, and to underpin future growth by establishing a long-term strategy for transport to, across, within and around the city.

While Galway has a compact walkable core, outside of the city centre, the suburbs have developed as a succession of low density residential and employment areas, which has led to a predominance of private car usage as a means of travel. As a result, the transport difficulties currently experienced across the city, particularly at peak travel times, are having a significant effect on the quality of life of residents, and are also impacting on the economic functionality of the city.

### 4.2 Current Background Issues

A number of specific characteristics of Galway City and its environs (refer to Figure 4.1) result in significant difficulties and inefficiencies in the movement and transportation of people and goods within and around the city, including:

- An over-reliance on private cars;
- Peak hour congestion and journey-time unreliability for all motorised transport;
- Safety concerns as a result of traffic congestion;
- Many key junctions within the city operating at or over capacity;
- Connectivity issues on the National and Regional road network resulting in significant volumes of cross-county and strategic travel demand between east and west Galway being concentrated and funnelled through the city area in order to cross the River Corrib;
- The pattern of residential development in the area, along with the location of employment destinations, generating a large amount of cross-city as well as city-bound travel demand;
- Large amounts of residential development located proximate to major employment and educational destinations city-wide, but not readily accessible by walking, cycling or public transport, thereby facilitating travel by private car;
- The short distance between Lough Corrib and Galway Bay;
- A natural barrier to cross-city and cross-county travel formed by Lough Corrib, the River Corrib and Galway Bay, with the three principal river crossings experiencing heavy traffic flows, leading to congestion and delay;
- The position of Galway City as a major regional centre for employment and education for a large geographical area, leading to large numbers of long-distance commuters for whom public transport is not currently a viable option, which leads to greater numbers of cars entering the city;

- The impact of traffic congestion on the city's reputation, particularly with regard to inward development;
- The suburban nature of much of the residential areas, and the wide distribution of jobs across a number of central and non-central locations, which lead to a situation where travel by public transport is not a viable option for many journeys;
- Prolonged journey times and delays on the current bus network, due in part to the limited available road space in the city centre for introducing bus priority which both reduces its attractiveness to passengers and increases costs of operating; and
- Limited road space on most of the principal roads, which reduces opportunities for safe and comfortable cycling.

### 4.3 Galway Transport Strategy

The Galway Transport Strategy (GTS) consists of a number of proposed measures combined under an overall vision *"to create a connected city region driven by smarter mobility"*. The GTS builds on previous transport studies carried out for the Galway Region, and sets out an overview of the proposed actions and measures for implementation, covering infrastructural, operational and policy elements (as an 'Integrated Transport Management Programme'). These consolidated proposals will provide Galway City and its environs (See Figure 4.1) with a clear implementation framework over the next 20 years and will be used to secure funding to deliver projects in a phased manner based on priority needs. Ultimately, the GTS will underpin the objectives of the current and future Galway City and Galway County Development Plans.

The major components proposed under the GTS comprise: changes to the traffic network, including provision of a new cross-city link and the N6 Galway City Ring Road (N6 GCRR); an enhanced local public transport network and regional public transport service; provision of the Bearna Greenway, the Galway City to Oranmore Cycleway (part of the Galway to Dublin Cycleway) and the Galway to Oughterard Greenway as well as a range of other additional non-greenway cycling, pedestrian and public realm improvements; and complementary measures.

### 4.4 Scope of the GTS

The Galway Transport Strategy includes specific strategic objectives / measures focused on key areas as outlined in Table 4.1. These key areas include:

<b>Traffic Network -</b>	reallocation of road space to prioritise walking, cycling, public transport including completion of N6 GCRR and active modes.
<b>Local Public Transport -</b>	focused on an enhanced, integrated high quality bus service.
<b>Cycling, Walking and Public Realm -</b>	with measures aimed at both primary, secondary and complementary levels.
<b>Complementary Measures -</b>	including education and behavioural change measures and continued investment in Intelligent Transport Solutions (ITS) to increase efficiency, safety and co-ordination across transport networks (Smarter Mobility).



### Figure 4.1: Galway Transport Strategy - Study Area Context

Table 4.1: Galway Transport Strategy: Potential Key Areas for Strategic Objectives

NO.	COMPONENTS / SPECIFIC MEASURES	STRATEGIC AIMS
1	<b>Traffic Network</b>	<i>The core city centre area within the City Centre Access Network will see road space reallocated to prioritise public transport and active modes</i>
	<ul style="list-style-type: none"> <li>City Centre Traffic Management</li> <li>City Centre Access Network</li> <li>Cross-City Link (Public Transport Corridor)</li> <li>Core City Centre Access</li> <li>Road and Street Network</li> <li>N6 Galway City Ring Road</li> <li>Parking</li> <li>HGV Management</li> </ul>	<p>Reduce through-car movement and traffic speeds in the city centre.</p> <p>Prioritise Public Transport movements in the city centre.</p> <p>Provide resilience of operation of the road network such that all travellers have a reliable (not necessarily fast) journey time.</p> <p>Provide road network improvements to cater for those journeys which are not able to be made (in a viable manner) by public transport, by cycle, or on foot.</p> <p>To provide efficient access arrangements for city centre car parks.</p> <p>To ensure that parking is not significantly cheaper than public transport.</p> <p>To reduce the impact of parking on the city centre environment and the movement of buses and cycles.</p> <p>Restrict HGV access to the city centre to only those vehicles with destinations (or origins) in the city centre.</p> <p>Manage the routing and timing of deliveries to the central area.</p>
2	<b>Local Public Transport</b>	<i>A central objective of the Strategy is to provide an efficient, reliable and attractive bus service for Galway</i>
	<ul style="list-style-type: none"> <li>Public Transport Service for the Galway City Region</li> <li>High frequency bus-based Public Transport Network (Priority Infrastructure Provision)</li> <li>City Centre Public Transport Interchange</li> <li>Supporting Measures for Local Public Transport</li> </ul>	<p>Maximise patronage attraction by providing a high-frequency core public transport network.</p> <p>Provide city-wide network coverage /connectivity to all parts of the city.</p> <p>Provide guaranteed and reliable journey time.</p> <p>Maximise range of destinations served by providing convenient interchange between public transport services.</p> <p>Implement multi-mode ticketing which allows transfer between modes.</p>

No.	COMPONENTS / SPECIFIC MEASURES	STRATEGIC AIMS
3	<b>Regional Public Transport</b>	<i><b>A central objective of the Strategy is to provide an efficient, reliable and attractive bus service for Galway</b></i>
	<ul style="list-style-type: none"> <li>• Regional / Inter-city / Commuter Bus &amp; Coach Network</li> <li>• Rail</li> <li>• Park &amp; Ride</li> <li>• Tourist Coach Parking Management</li> </ul>	<p>Coaches/buses should have reliable journey times in the city.</p> <p>Good access in and out of bus/coach termini in the city centre.</p> <p>Improved interchange between regional and local public transport.</p> <p>Increase frequency of rail service, subject to sufficient passenger demand and usage.</p> <p>Maximise destinations reachable by Park &amp; Ride services.</p> <p>Ensure that Park &amp; Ride is financially sustainable.</p> <p>Suitable coach drop-off/pick-up locations; Controlled coach drop-off/pick-up in the core city centre area;</p> <p>Provision of managed layover coach parking areas outside of the core city centre area.</p>
4	<b>Cycling, Walking and Public Realm</b>	<p><i><b>With a relatively flat topography and a compact city centre, Galway is ideally suited to cycling as a means of transport</b></i></p> <p><i><b>As a city of learning with a compact, walkable city centre, Galway enjoys a high walking mode share of approximately 23%</b></i></p> <p><i><b>The Transport Strategy will ensure that the needs of pedestrians and the mobility impaired and disabled are fully considered in the design of all new facilities and upgrades of existing facilities</b></i></p>
	<ul style="list-style-type: none"> <li>• Cycling</li> <li>• Supporting Measures for Cycling</li> <li>• Walking</li> <li>• Supporting Measures for Walking</li> <li>• Public Realm – Cross-City Link</li> <li>• Universal Design</li> </ul>	<p>To provide a primary ‘trunk’ cycle network which will provide a convenient and safe route for medium-distance radial commuter / leisure journeys.</p> <p>To provide a secondary cycle network which will provide a recognisable grid network for local journeys, and will be connected to the primary network for longer journeys.</p> <p>To increase options for cycling in and across the city centre.</p> <p>To provide improvements for pedestrians along city centre public transport corridors.</p> <p>To increase priority given to pedestrians over road traffic.</p> <p>To Increase legibility and wayfinding.</p> <p>To increase the quality, comfort and safety of the pedestrian facilities.</p>

No.	COMPONENTS / SPECIFIC MEASURES	STRATEGIC AIMS
		<p>To provide improvements for pedestrians along city centre public transport corridors.</p> <p>To increase priority given to pedestrians over road traffic.</p> <p>To adopt an approach to design that is inclusive of all persons, in particular, those who face specific challenges on a day to day basis when utilising the various modes of transport to travel around the city.</p>
5	Complementary Measures	<p><i>Galway City Council has progressed the adoption of Smarter Mobility and Intelligent Transport Systems (ITS), as can be seen in the construction and commissioning of the City's Urban Transport Management Centre</i></p> <p><i>School travel is a critical factor affecting transport in Galway, particularly in the morning peak period</i></p>
	<ul style="list-style-type: none"> <li>• Smarter Mobility</li> <li>• Travel to Places of Education</li> <li>• Land-use Integration</li> <li>• Behavioural Change</li> </ul>	<p>Provide additional capacity to the transportation network.</p> <p>Incorporate demand management.</p> <p>Utilise intelligent systems to deliver overall efficiency and cost savings to passengers.</p> <p>Behavioural change programmes which encourages students and schoolchildren to travel to school by modes other than the car.</p> <p>Strategic improvements of bus, cycle and walking networks will provide safe opportunities for students to use non-car modes.</p> <p>Permeability improvements targeted at walking and cycling modes, improving accessibility to the bus network, and also minimising excessive routing for those who wish to walk or cycle to school.</p> <p>Promotion of school travel plans, and participation in the Green Schools Travel initiative.</p> <p>At second level and third level, implementing mobility management planning for student travel, combined with targeted promotion of alternatives to the private car to better inform students of their travel options.</p> <p>High-volume, trip intensive developments, such as offices and retail, should primarily be focused into the city centre, or areas well served by public transport.</p> <p>Residential development located proximate to high capacity public transport should be prioritised over development in less accessible locations.</p>

No.	COMPONENTS / SPECIFIC MEASURES	STRATEGIC AIMS
		<p>All non-residential development proposals should be subject to maximum parking standards – these standards should vary with location with regard to the centrality of the proposal within the city and the level of public transport provision. Area-based parking standards could be considered.</p> <p>All major employment developments and all new and extended schools, travel plans should be conditioned as part of planning permissions and be carried out in a manner consistent with existing NTA guidance.</p> <p>To the extent practicable, residential development should be carried out sequentially, whereby lands which are, or will be, most accessible by walking, cycling and public transport – including infill and brownfield sites – are prioritised.</p> <p>Planning at the local level should promote walking, cycling and public transport by maximising the number of people living within walking and cycling distance of their neighbourhood or district centres, public transport services, and other services at the local level such as schools.</p> <p>New development areas should be fully permeable for walking and cycling and the retrospective implementation of walking and cycling facilities should be undertaken where practicable in existing neighbourhoods, in order to give a competitive advantage to these modes.</p> <p>Where possible, developments should provide for filtered permeability. This would provide for walking, cycling, public transport and private vehicle access but at the same time would restrict or discourage through trips by private car.</p> <p>To the extent practicable, proposals for right- of-way extinguishments or other requirements should only be considered where these do not result in more circuitous walking and cycling trips for local residents accessing public transport or local destinations.</p> <p>In urban areas, including the numerous towns, villages and settlements, the Design Manual for Urban Roads and Streets (DMURS) will guide localised proposals with a view to reaffirming walking, cycling and public transport modes over the private car.</p>



## 4.5 Layout of GTS

The detail of the GTS is set out over a series of chapters as follows:

- Chapter 1 Introduction and Purpose
- Chapter 2 Policy and Transport Context
- Chapter 3 Strategy Development
- Chapter 4 Traffic Network
- Chapter 5 Local Public Transport
- Chapter 6 Regional Public Transport
- Chapter 7 Cycling, Walking and Public Realm
- Chapter 8 Complementary Measures
- Chapter 9 Environmental Assessment
- Chapter 10 Implementation and Outcomes

Various appendices including this SEA Environmental Report, an AA Natura Impact Statement (NIS) and a Strategic Flood Risk Assessment (SFRA) accompanies the GTS.

## 4.6 Relationships with other relevant Plans and Programmes

The GTS sits within a hierarchy of strategic actions such as Plans and Programmes, including those listed below and detailed in Appendix II of this Report. The Strategy must comply with relevant higher level strategic actions such as policies and objectives of the relevant City Development Plan and County Development Plan and may, in turn, guide lower level strategic actions.

The Strategy is subject to a number of high level environmental protection policies and objectives with which it must comply, including those which have been identified as Strategic Environmental Objectives in Section 6. Examples of Environmental Protection Objectives include the aim of the EU Habitats Directive - which is to contribute towards ensuring biodiversity through the conservation of natural habitats and of wild fauna and flora in the European territory of Member States - and the purpose of the Water Framework Directive - which is to establish a framework for the protection of inland surface waters, transitional waters, coastal waters and groundwater which, among other things, prevents deterioration in the status of all water bodies and protects, enhances and restores all waters with the aim of achieving good status.

## 5.0 Baseline Environment of Galway Transport Strategy Area

### 5.1 Introduction

The purpose of this section of the Environmental Report is to describe the relevant aspects of the current state of the environment within the GTS Study Area. This baseline information outlines the environmental context within which the GTS will be implemented.

The aim of this chapter is therefore to identify the following parameters:

- The key environmental baseline resources and sensitivities;
- The key environmental threats and trends; and
- The likely evolution of the environment in the absence of the GTS.

The baseline data allows for the “State” of the environment to be identified in objective terms. Where possible and where data exists, a quantitative measurement of the environmental conditions is provided, however where such information is absent, qualitative descriptions of environmental themes are provided instead. Where important information deficits are noted, recommendations are provided in the mitigation measures section to ensure that any absence of critical information will be addressed as part of the ongoing monitoring and review of the GTS.

The headings provided are in accordance with the legislative requirements of the SEA Directive. An emphasis is placed on the strategic elements of each aspect and where potentially relevant to GTS policy. The topics addressed are:

- Biodiversity, Flora & Fauna
- Population
- Human Health
- Soil & Geology (incl. land use)
- Water
- Air Quality and Climate Change
- Material Assets
- Architectural, Archaeological and Cultural Heritage; and
- Landscape

### 5.2 Biodiversity and Flora & Fauna

This section provides a description of the biodiversity and ecology present in the GTS Study Area.

A substantial amount of lands in the study area is in a natural state or of a semi-natural character. The area also contains a wide range of natural heritage areas with designated sites of International, European and National importance. Areas of local ecological importance have also been identified for their biodiversity value. The Galway Biodiversity Action Plan (2014-2024) highlights that the attractiveness of Galway City as a tourist destination is due in part to the city’s rich natural heritage. Biodiversity can enhance quality of life through access to recreation, amenity and natural areas, it also provides environmental services such as pollution control, flood attenuation and erosion prevention. There is also potential for loss of habitats through development.

The Galway City Habitat Inventory (2005) (and the Natura Impact Report associated with the Draft Galway City Development Plan 2017-2023) identified that key pressures relate to infrastructural and

urban development, recreational disturbance and water quality. There is also potential for loss of biodiversity through the introduction of invasive species and through climate change.

The extensive range of designated sites and protected species pose a challenge for accommodating land use planning and infrastructure development. A key challenge for the GTS is to accommodate proposed measures while at the same time conserving and enhancing biodiversity and avoiding significant impact on the conservation status of designated sites and species.

### 5.2.1 *Natura 2000 Network (European Sites)*

Key biodiversity, flora and fauna resources in the study area are linked to certain areas that have been designated as habitats of International importance. These include the European Sites as set out in Table 5.1 and on Figures 5.1 & 5.2.

**Table 5.1: European Sites (SACs and SPAs)**

SPECIAL AREAS OF CONSERVATION (SAC)	SPECIAL PROTECTION AREAS (SPA)
Castletaylor Complex SAC (000242)	Inner Galway Bay SPA (004031)
Galway Bay Complex SAC (000268)	Lough Corrib SPA (004042)
Lough Corrib SAC (000297)	Rahasane Turlough SPA (004089)
Rahasane Turlough SAC (000322)	Cregganna Marsh SPA (004142)
Lough Fingall Complex SAC (000606)	Connemara Bog Complex SPA (004181)
Gortnandarragh Limestone Pavement SAC (001271)	
Kiltiernan Turlough SAC (001285)	
Ross Lake & Wood SAC (001312)	
Connemara Bog Complex SAC (002034)	
Ardrahan Grassland SAC (002244)	
Black Head-Poulsallagh Complex SAC (000020)	
Moneen Mountain SAC (000054)	
East Burren Complex SAC (002034)	
Ballyvaughan Turlough SAC (000996)	

Potential Impacts arising from the N6 Galway City Ring Road (N6 GCRR), the Galway to Oughterard Greenway and a number of proposed bridges on the Natura 2000 Sites are outlined in detail in the AA Natura Impact Statement (NIS) which accompanies the Strategy and this Environmental Report.

In this regard, any development adjacent to the designated sites identified above would be required to consider their impact on the integrity of protected areas. However, following the implementation of the mitigation measures proposed in the NIS, it has been objectively concluded that the GTS does not pose a risk of adversely affecting the integrity of any European Sites, either alone or in-combination with other plans or projects.

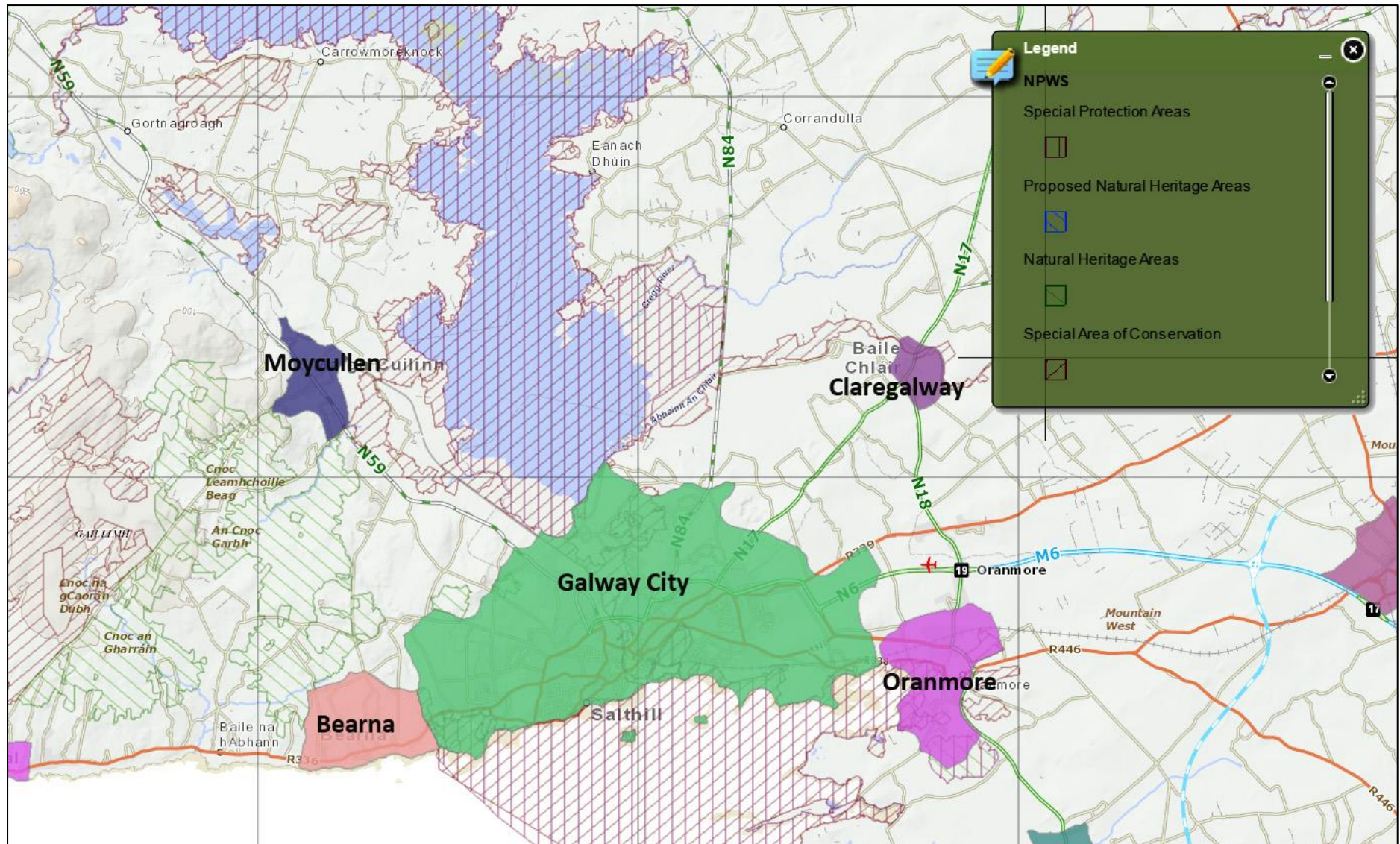


Figure 5.1 European Sites (Special Areas of Conservation (SAC), Special Protection Areas (SPA) and Natural Heritage Areas) within Study Area



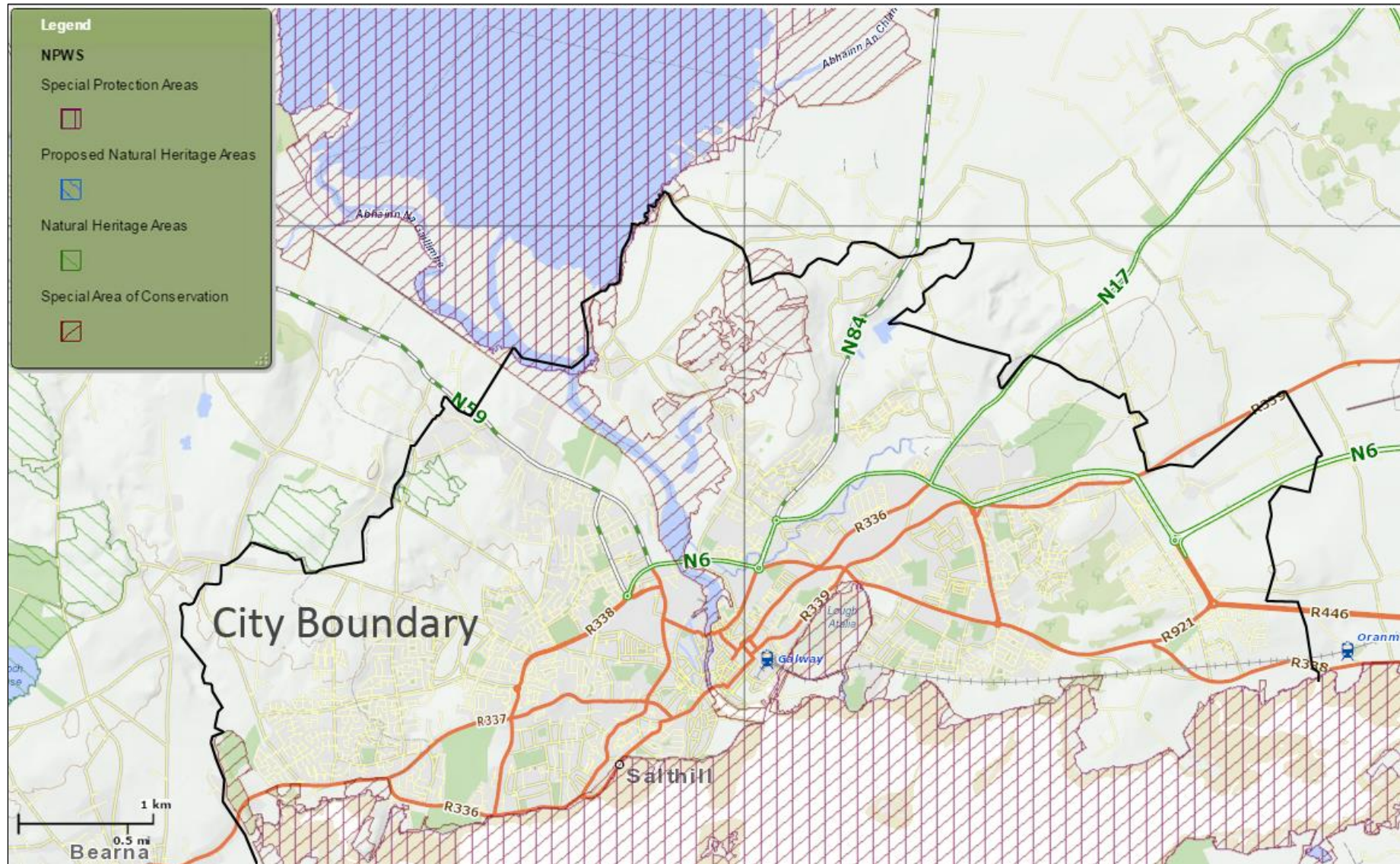


Figure 5.2: European Sites (Special Areas of Conservation (SAC), Special Protection Areas (SPA) and Natural Heritage Areas within City Region

### 5.2.2 National Heritage Areas

Natural Heritage Areas of national importance are designated and protected under the Wildlife (Amendment) Act 2000. A Natural Heritage Area (NHA) is an area considered important by reason of flora, fauna, habitat and/or geomorphologic interest. These include the NHAs and proposed NHA's as set out in Table 5.2 and on Figures 5.1 and 5.2.

**Table 5.2: Natural Heritage Areas (NHAs and pNHAs)**

NATURAL HERITAGE AREAS (NHA)	Proposed NATURAL HERITAGE AREAS (pNHA)
Cregganna Marsh NHA (000253)	Lough Corrib pNHA (000297)
Moycullen Bogs NHA (002364)	Galway Bay Complex pNHA (000268)
Oughterard District Bog NHA (002431)	Kiltullagh Turlough pNHA (000287)
	Furbogh Wood pNHA (001267)
	Ballycurke Lough pNHA (000228)
	Drimcong Wood pNHA (001260)
	Killarainy Lodge, Moycullen pNHA (002083)
	Ross Lake & Wood pNHA (001312)
	Connemara Bog Complex pNHA (002034)
	Kiltiernan Turlough pNHA (001285)
	Rahasane Turlough pNHA (000322)
	Castletaylor Complex pNHA (000242)
	Lough Fingall Complex pNHA (000606)
	Gortnandarragh Limestone Pavement (001271)
	Moneen Mountain pNHA (000054)
	Black Head-Poulsallagh Complex pNHA (000020)
	Turloughcor pNHA (001788)

### 5.2.3 Galway Biodiversity Action Plan 2014-2024

In addition to European and National designated sites, areas at a local level have also been identified as having ecological and biodiversity importance to the Study Area. The Galway Biodiversity Action Plan (GBAP 2014-2024) takes into consideration the finding of the Habitats Inventory and a range of national and local policy documents including the National Biodiversity Plan 2011-2016, National Heritage Plan 2002 and Galway Heritage Plan 2015-2020. The Plan highlights the River Corrib as a wildlife corridor linking coastal habitats to the habitats in the city's hinterland. The Plan cites that the EU Habitats Directive (Article 10) requires the protection of features of the landscape which provide linear features or stepping stones for wildlife. These include the local biodiversity areas as set out in Table 5.3.

**Table 5.3: Biodiversity Areas**

LOCAL BIODIVERSITY AREAS	OTHER AREAS OF IMPORTANCE
Oughterard Rusheen Bay – Barna Woods – Illaunafamona	Lough Corrib pNHA (000297)
Cappagh-Ballymoneen	Terryland Forest Park
Ballagh- Barnacranny Hill	City Canal System
Mutton Island and nearby shoreline	Lake
Lough Atalia and Renmore Lagoon	Cave, Merlin Park
River Corrib and adjoining Wetlands	Terryland Glenanail
Menlough to Coolagh Hill	Cooper’s Cave, Terryland
Ballindooley – Castlegar	
Ballybrit Racecourse	
Merlin Park Woods	
Doughiska	
Roscam	

The extensive range of designated sites and protected species pose a challenge for accommodating land use planning and infrastructure development. A key challenge for the Strategy is to accommodate the future development needs of the city while conserving and enhancing biodiversity and avoiding significant impact on the conservation status of designated sites and species. Any development adjacent to the river and coastline would be required to consider their impact on the integrity of protected areas. The Strategy incorporates recommendations from the NIS to ensure that development proposals with potential to impact on European Sites, protected flora and fauna are subject to ecological assessment. Figure 5.3 below identifies the areas of high biodiversity in Galway outlined in Table 5.3 above. However, an Ecological Habitat Survey carried out by Scott Cawley on the scheme study area for the proposed N6 Galway City Transport Project identified further areas of local ecological value in the general study area. These areas are mapped in Figure 5.4 below.



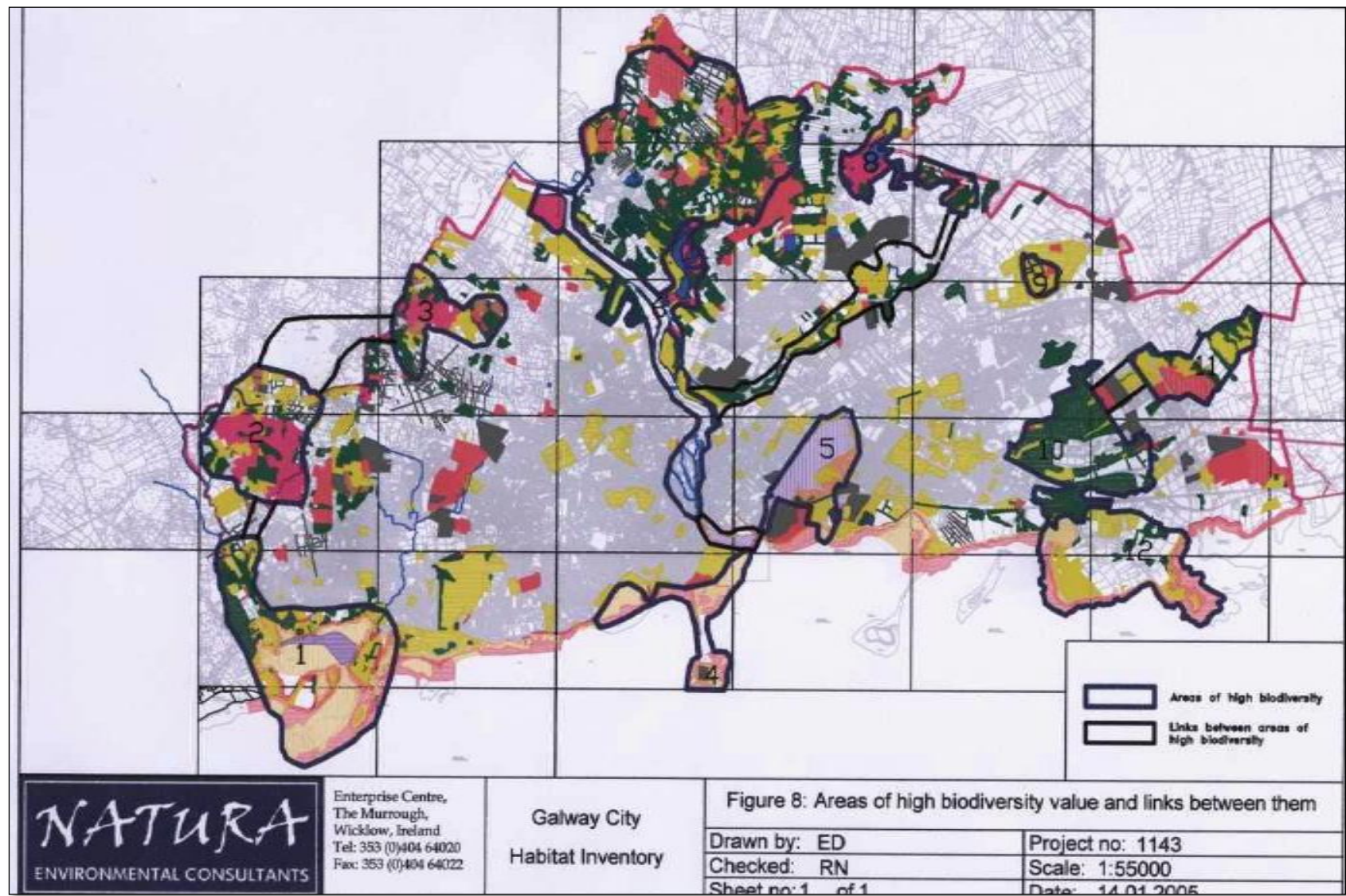


Figure 5.3 Areas of High Biodiversity in Galway City (Galway City Habitat Inventory)





Figure 5.4 Ecological Habitat Survey Site Locations (Source Arup, N6 Galway City Transport Project)

## 5.3 Population & Human Health

### 5.3.1 Population

The census of population carried out in 2016 indicated the population of Galway City as 79,504 persons (Census 2016). Galway City is also likely to continue as a significant growth location. The *West Region Planning Guidelines (2010-2022)* and *DEHLG Regional Planning Guidelines* review provides population targets for Galway City in 2016 and 2022 which are 88,500 and 98,700 respectively. These targets require growth of 15% to 29% and is higher than the actual growth rate of 4.3% and 10% in during the 2002-2006 period.

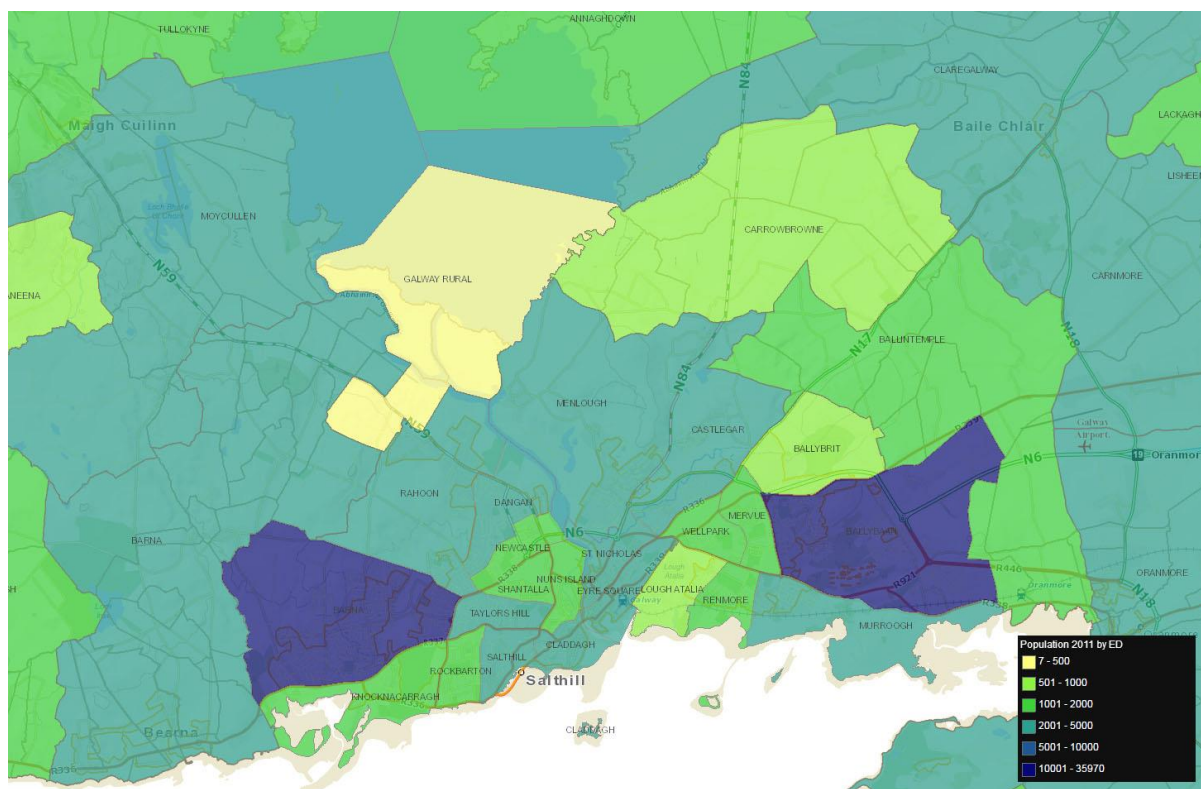
Key issues for the city revolve around balancing and managing city development and its transport needs with protecting the environment and delivering improved social and physical infrastructure.

The Draft Galway City Development Plan 2017-2023 recognises brownfield sites including Ceannt Station and Headford Road as sites holding potential for a diverse range of commercial, retail, office and service opportunities and for the expansion of the city centre. Ceannt Station is also identified as a key brownfield area for development opportunities within the GTS.

Sustainable transport infrastructure will be needed to encourage healthy living. The Strategy should ensure provision of adequate road and public transport infrastructure to serve the anticipated future population as well as enhance cyclist and pedestrian networks. Locating transport infrastructure and services closer to urban/suburban areas (which have higher populations and densities) will allow for a greater number of journeys via sustainable transport modes and associated positive environmental effects on energy usage and air and noise emissions. The Strategy should also continue to promote government policy with regard to smarter travel and sustainable transport subject to provision of high quality design and layout and a good quality living environment.

Figure 5.3 shows the residential population density of Galway City and its surrounding environs in 2011. The Electoral Districts of Ballybane and Bearna have higher population densities than those found in the city centre.





**Figure 5.3 Population Density of Electoral Districts within Study Area**

### 5.3.2 Health

Human health impacts relevant to the SEA are those that arise as a result of interactions with 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 components and can occur in urban locations that experience high levels of traffic congestion and associated particulate matter and noise emissions to air.

Health can also be impacted by access to green networks and open space and greenways. The Healthy Ireland Framework for Improved Health and Wellbeing Framework (2013-2025) outlines actions to improve health and wellbeing and highlights that the quality of the urban environment and accessibility to services and amenities can impact on a person's quality of life. The Galway City Draft Development Plan and Galway Transport Strategy have incorporated policies in these areas to encourage social inclusion and promote a healthy urban environment through urban design, encouraging walking and cycling and accessibility and active living.

## 5.4 Soils and Geology

The majority of soils in the city are classified as 'made soils' which are disturbed, transported or manipulated by activity in the urban environment. Vulnerable soils in the city are found primarily along the River Corrib. Lands to the west with granitic rocks are divided by the N59 from lands to the east with limestone. As granitic rocks are acidic and poorly drained while limestone is alkaline, the potential

for the contamination of water resources is higher<sup>1</sup>. The soils map for the wider Galway City area is shown on Figure 5.4.

Development on greenfield areas affects soil conservation by depleting the soil resources and changing the soil character where it remains. National policy promotes the use of brownfield/redevelopment areas, which reduces pressure for greenfield development and contributes to achieving sustainable and balanced development.

The majority of lands within the city are developed, and given the range of land use activities which have taken place historically, contamination may be uncovered during development works at brownfield areas.

Geological heritage is part of Galway City's heritage. The Strategy seeks to protect geological heritage from inappropriate measures. The distribution and diversity of habitats in the city reflects to a large extent the underlying geology (as well as climate and land use history), this includes habitats protected under the Habitats Directive. The Western River Basin District (WRBD) River Basin Management Plan and future plan provide a mechanism for addressing potential water contamination and the Strategy should have regard to its implementation.

Soil erosion can be caused by construction activities. Erosion results in a loss of nutrients in the upper layers of the soils and also leads to reduced water-holding capacity. Erosion can also impact on surface water quality. Climate change is likely to increase soil erosion, as a result of higher rainfall intensity and possible loss of organic matter, which could result in reduced structural stability.

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<sup>1</sup> NIS from Draft Galway City Development Plan 2017-2023



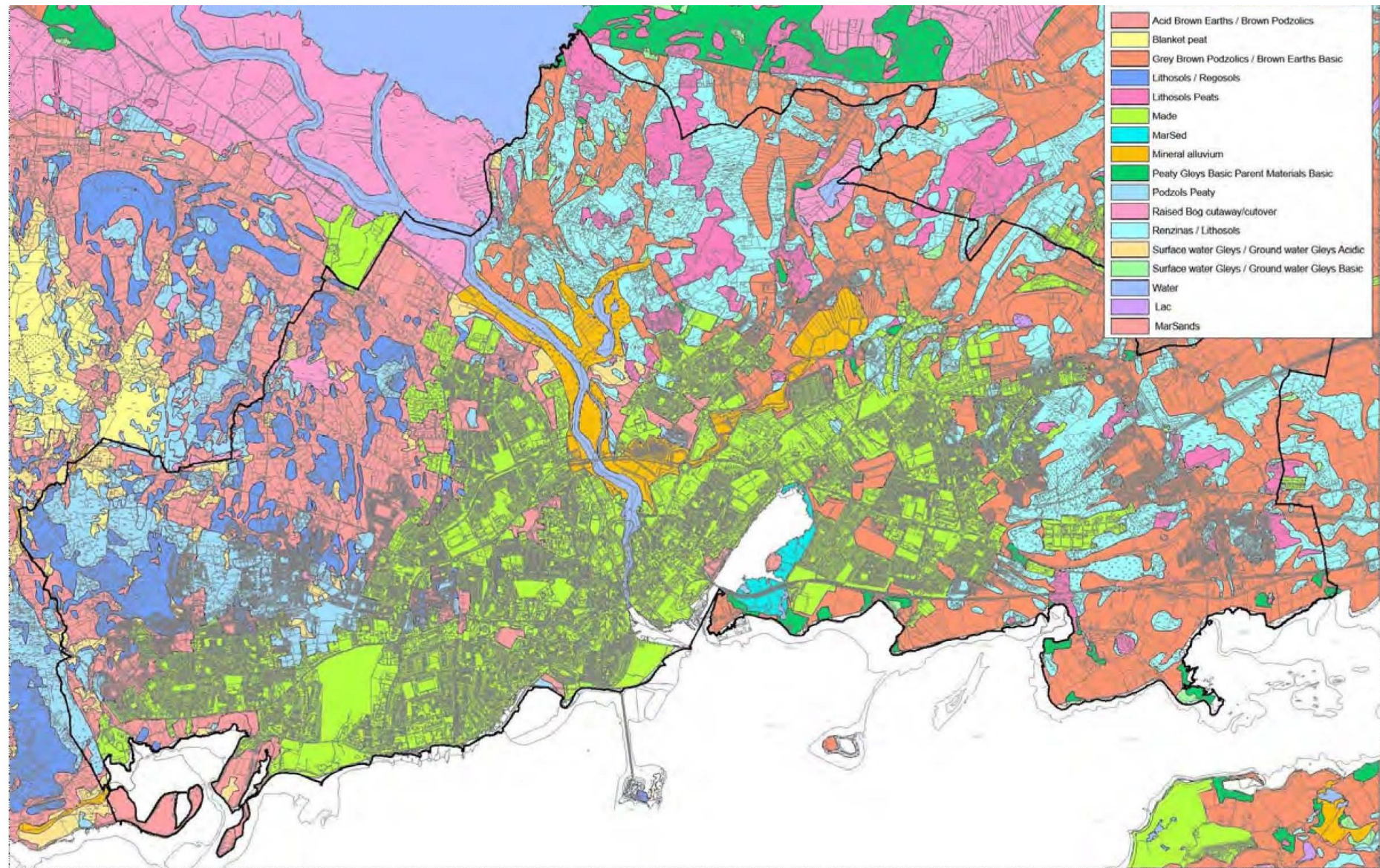


Figure 5.4: Soils Map for Galway City Area

## 5.5 Water

The GTS study area contains a number of water bodies which are of significant amenity and tourist value to the city. The city is located on the banks of the River Corrib, which flows from Lough Corrib to Galway Bay while the Terryland River feeds out from the River Corrib. The Terryland River is used as one of the city's water resources and feeds from Lough Corrib and the Corrib basin, the bulk of which lies outside the city's boundary. Many of the waterbodies in and adjacent to the GTS study area, including Lough Corrib and the River Corrib and Galway Bay are European Sites which have been selected for the conservation of a range of Annex II aquatic species.

The issue of water quality in Galway Bay and the Western River Basin District (WRBD) is of concern and areas in the district upstream of the city also contribute to impacts on water quality in the River Corrib and Galway Bay. The WRBD, set up under the Water Framework Directive (WFD) includes most of Mayo, Sligo, Galway City and significant portions of County Galway and Leitrim with smaller portions in Roscommon, Clare and off shore Islands. Key issues for the Western River Basin District include abstraction for water supply, physical changes arising from land drainage, urban pressures, septic tanks, forestry in sensitive areas, dangerous substance use, agriculture, alien species, septic tanks, urban wastewater treatment plants, landfills and flooding. The WRBD River Basin Management Plan is currently under review and provides an integrated mechanism for setting standards and achieving objectives for water quality.

Key challenges for Galway City and its environs include balancing growth and development with preventing the deterioration of water quality and delivering physical infrastructure to meet population projection targets. Water quality is a key environmental condition supporting the integrity of European sites and areas identified on the WFD Registers of Protected Areas. The Strategy should have regard to the protection of surface water, groundwater and coastal/estuarine resources and their associated habitats and species including fisheries.

Maps of groundwater aquifers and groundwater vulnerability are provided on Figures 5.5 and 5.6. Other water issues include promoting best practice in the design and construction of SUDS also play an important role in the management of water resources.

### 5.5.1 Flooding

Flooding is an environmental phenomenon which, as well as causing economic and social impacts, could in certain circumstances pose a risk to human health. Therefore, a Strategic Flood Risk Assessment (SFRA) has also been completed for the Galway Transport Strategy.

Galway City, due to its landscape setting, is vulnerable to three key sources of flooding, fluvial, groundwater and coastal. The main tidal and coastal flood risk areas within the study area are the shoreline areas from Bearna to Oranmore and in particular low-lying lands below 4.2m O.D. Malin, namely Salthill Promenade area, Grattan Road, South Park, Claddagh Basin, the Spanish Arch, the Long Walk, Flood Street, Lower Quay Street, Spanish Parade, Dock Street and Dock Road, Merchant's Road, Fr. Griffin Road, Fairhill, Dominick Street, Munster Avenue, and William Street West. These areas are at risk from flooding by tidal inundation during storm surge events.

Recurring flooding (approximately a 1 in 5 year) at Merchant's Road Lower, Spanish Parade, Quay Lane and Flood Street occurs due to urban storm drainage capacity which can be compounded by high tide levels and River Corrib flows. Areas subject to flood risk from wave overtopping are Grattan Road, Martin Connolly (Mutton Island) Causeway, Southpark



Shoreline Walkway to Nimmo's Pier and the Salthill promenade area. Demountable defences have been purchased to protect the Spanish Arch area from tidal flooding.

In relation to Fluvial Flooding, the River Corrib represents a significant flood risk to the Headford Road area but this area is defended against flooding by the Dyke Road flood embankment which provides protection against the 100 year return period fluvial flood event.

Pluvial Flooding results in the ponding of runoff waters within local depression topography areas which can result when rainfall intensity and duration exceed the infiltration capacity of the underlying soil causing temporary (over a few hours) building up of flood waters in such areas. Potential pluvial Flood Risk Areas are located throughout the Galway City study area and are generally small and of limited consequence for the proposed study area.

A separate Specific Flood Risk Assessment (SFRA) has also been prepared for Galway Transport Strategy.

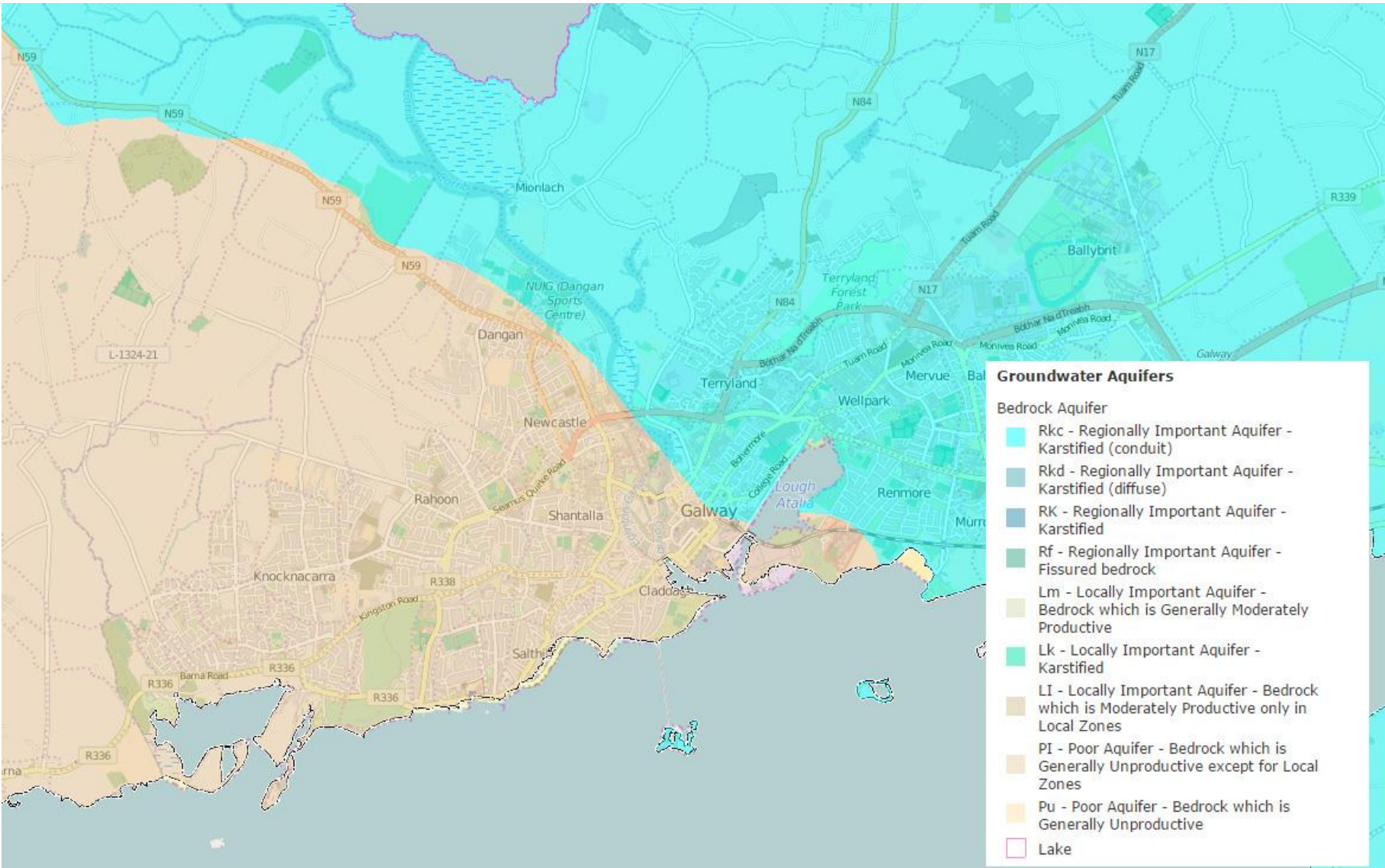


Figure 5.5: Galway City Region Groundwater Aquifers



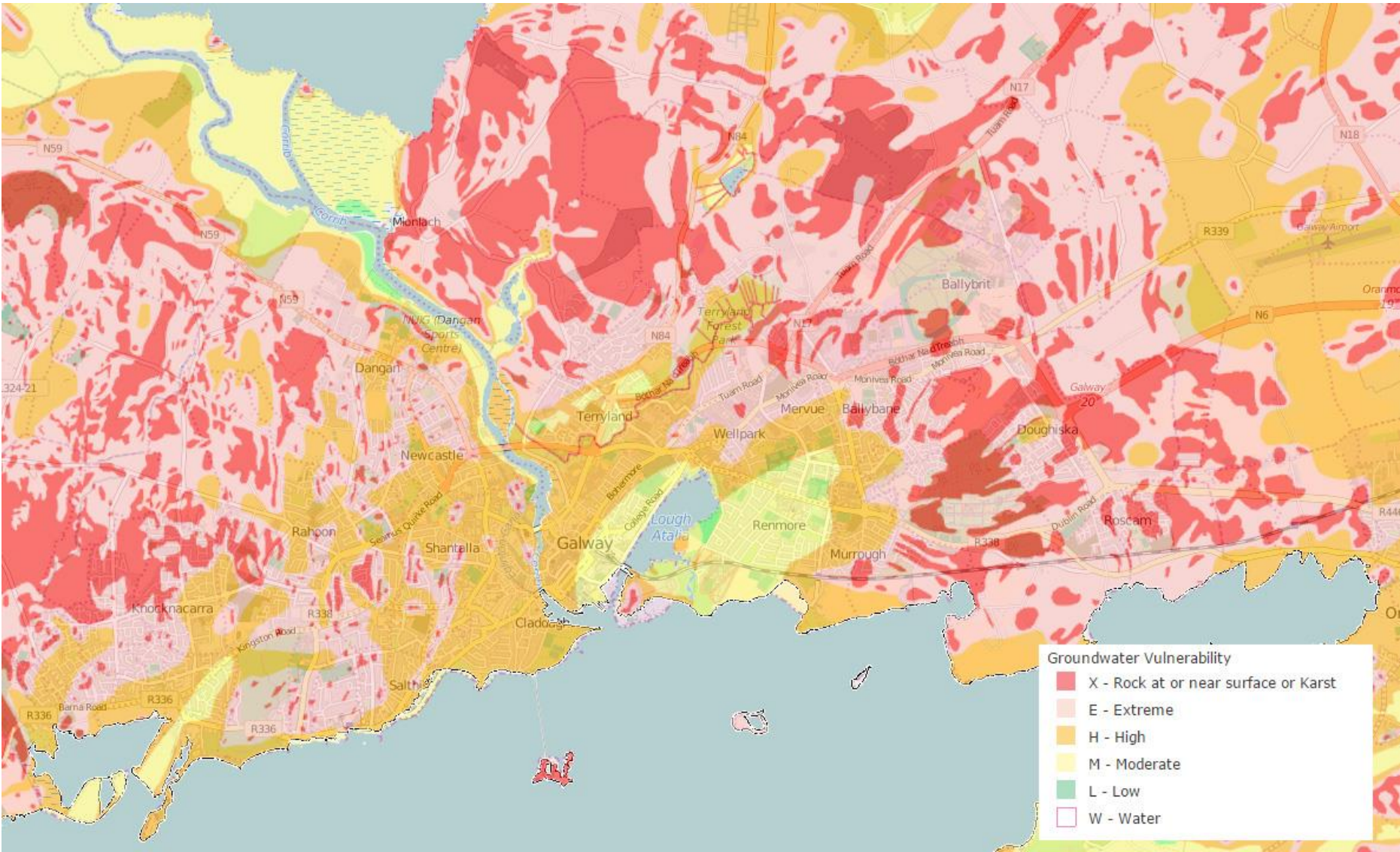


Figure 5.6: Galway City Region Groundwater Vulnerability

## 5.6 Air Quality, Climate Change and Noise

### 5.6.1 Air Quality & Climate Change

In order to protect human health, vegetation and ecosystems, EU Directives set down air quality standards in Ireland and the other Member States for a wide variety of pollutants. These pollutants are generated through fuel combustion, traffic, electricity generation and industry and, in sufficient amounts, could affect the well-being of the areas inhabitants. The EU Directives include details regarding how ambient air quality should be monitored, assessed and managed.

Ambient air quality assessment is carried out by the EPA which divides the country into four zones. Galway is located in Zone C (Other cities and large towns). Air Quality analysis is based on concentration measurement of the following pollutants: particulate matter, ozone, NO<sub>x</sub>, SO<sub>2</sub>, lead and to a lesser extent, ozone. One of the future challenges for air quality in the city will be NO<sub>x</sub> emissions for road traffic. The actions set out in the Smarter Travel Policy for Sustainable Transport (DOT, 2009) include actions to reduce travel demand and increase alternatives to the private vehicle thereby reducing NO<sub>x</sub> levels.

Air quality in the city is good, however the high levels of traffic congestion can generate emissions and noise. The creation of a permeable street network which promotes walking, cycling and public transport would lead to reductions in vehicular traffic and less concentration of traffic and consequently of noise and air pollution. Consideration should be given to noise mitigation site design techniques where appropriate.

Possible impacts of climate change are unpredictable, diverse and subject to continued scientific study. The severity of the impact will depend on what 'adaption measures' are put in place, such measures include improvements in flood risk management and the prevention of inappropriate construction on flood plains. Greenhouse gas emissions from future activities can be reduced so as to minimise the impact of climate change.

Climate adaptation actions including the protection of natural heritage areas, sustainable land use and urban settlement patterns, sustainable travel modes, improvement in waste management, SUDS and building standards are key measures in the reduction of greenhouse gas emissions. The Strategy can also promote improved use of more sustainable modes of transport and encourage the transition to a low-carbon, climate-resilient and environmentally sustainable society.

The DEHLG'S Planning System and Flood Risk Management Guidelines for Planning Authorities (2009) highlights that flooding can impact on people, property and the environment. A Strategic Flood Risk Assessment (SFRA) will also be completed for the Galway Transport Strategy.

### 5.6.2 Noise

The noise Directive, Directive 2002/49/EC relating to the assessment and management of environmental noise is part of an EU Strategy setting out to reduce the number of people affected by noise in the longer term and to provide a framework for developing existing EU policy on noise reduction from source.

The Galway City Noise Action Plan 2013-2018 (NAP) has been adopted by Galway City Council under the provisions of the Environmental Noise Directive. The purpose of the NAP is to

manage, ameliorate and reduce environmental noise through the adoption of the action plan. In the case of Galway, noise maps are required for all major roads with a traffic flow threshold above 3 million vehicle trips per annum including the existing N6. Noise maps have been prepared which show noise exposure from major roads. Figure 5.7 shows the noise contours associated with major roads around Galway City.

The long term aim of the NAP is to reduce the impact of environmental noise from major road sources to acceptable levels below 70dB (A) Lden and 57dB(A) Lnight at residential properties along major roads in the city. The NAP recommends that noise protection should be taken into account in the location of land uses and development. The results of the noise mapping indicate that 1.69% of the population within Galway City Council's functional area are being exposed to noise levels from road traffic sources that are above the proposed acceptable noise levels. On the basis of the noise mapping a decision matrix was used to identify areas that may require noise intervention or management. Thirty-nine specific areas in Galway City along the major roads were assessed using the decision matrix. These areas are outlined in the Draft Galway City Development Plan 2017- 2023<sup>2</sup>. The NAP includes an implementation plan outlining a proposed programme of works for the period 2013-2018. The programme is largely focused on traffic management and construction projects, with the aim of reducing vehicle numbers and re-distributing traffic on the city's road network. Road traffic noise mitigation methods will depend on specific acoustic measurement surveys to identify appropriate actions for each of the locations identified in the assessment.

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<sup>2</sup> Draft Galway City Development Plan 2017-2023, page 42, Table 4.10



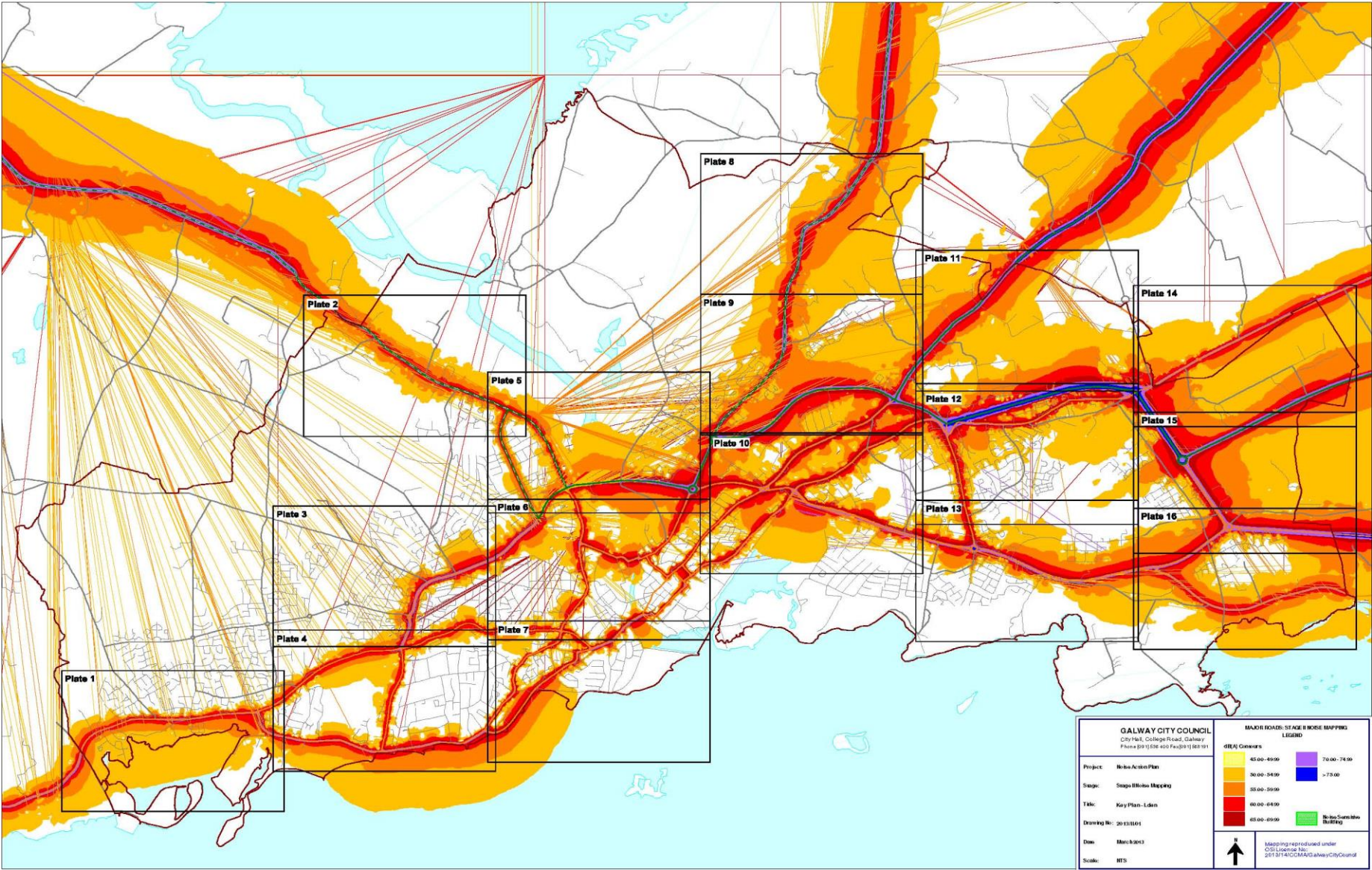


Figure 5.7: Galway City Region Major Road Noise Mapping

## 5.7 Material Assets

Material Assets relevant to this SEA include transportation and infrastructure, land and waste management.

### 5.7.1 *Transportation*

Transportation policies continue to promote the achievement of a sustainable integrated transportation system and aim to facilitate an increased modal shift away from the private car, promote measures to reduce traffic congestion in the city and support a reduction in energy consumption.

The Strategy is influenced by studies such as the Galway Public Transport Study (2009), Galway and Environs Walking and Cycling Strategy (2012) and the Galway Metropolitan Area Bus and Cycle Network Plan (2014). Furthermore, national guidance including the Design Manual for Urban Roads and Streets (2013) will be referred to when implementing the components and measures of the Strategy.

Addressing issues such as existing traffic congestion, improved transport networks and promoting sustainable modes of transports are key priorities of the Galway Transport Strategy. Balancing development of improved transport networks for public transport, non-private car modes and vehicular modes, and the protection of the existing built environment and urban space can pose a challenge, however, brownfield development within the city can both enhance the value of property and its surrounds.

### 5.7.2 *Land use*

The land use profile of the Transport Strategy study area outlined above is characterised by significant residential development in the west and east of the city, and in other locations close to major employment and retail areas within the city centre area and in the east of the city. To the north of the city there are several small towns and villages on either side of Lough Corrib, with dispersed residential development throughout the rural areas.

There are also large residential developments in close proximity to major employment and educational facilities, but which are not easily accessible by walking, cycling or public transport. These settlement patterns have given rise to an increased need to travel, both to the city centre and across the city centre, from the suburban areas and from the wider region.

Existing land uses are expected to remain largely unchanged over the time period of this strategy, however it is necessary to consider the location and impact of new development both within the city centre and within the wider suburban areas as set out in relevant City and County Development Plans and Local Area Plans, to ensure that these areas are considered in the development of the transport proposals.

To the east of the city, significant residential development is envisaged at Ardaun, as well as complementary local employment and services. Figure 5.8 shows land uses within the Study Area of the GTS. Further details on the specific land use zonings can be found in the Galway City Development Plan 2011-2017 Land Use Zoning Map, Map 1A for Oranmore LAP 2012-2018, Map 1A of Moycullen LAP 2013-2019 and Map 2.3.2B of the Bearna LAP.

Other existing suburban areas, including Knocknacarra, Castlegar and Doughiska are envisaged to grow at a more constrained rate. District centres and lower-order neighbourhood centres are identified by the draft Galway City Development Plan 2017 - 2023 for these suburban areas, and in other locations including Westside, Salthill, Ballinfoile, Renmore and Ballyburke, which will see the levels of employment rise in these areas.

In the wider county, the settlements at Baile Chláir, Maigh Cuilinn, Bearna and Oranmore themselves see large numbers of daily commuters to and from Galway City. Approximately 50% of Galway City's daytime working population commute from outside the city boundary.

### 5.7.3 *Waste Management*

Significant progress has occurred in sustainable waste management in the city and county, including the implementation of regional waste management plans and increases in recycling rates. The Connacht Ulster Regional Waste Plan, 2015-2021 includes the administrative area of the GTS study area. A key objective of the Strategy is to have a co-ordinated regional approach to the sustainable management of waste, based on the waste hierarchy and the polluter pays principle established in the EU framework directive on waste and national waste policy. The Regional Waste Plan includes three strategic targets covering the areas of prevention, recycling and landfill and their delivery requires the Local Authorities and industry to work together. The Regional Waste Plan has also looked forward to 2030, with further goals set down including reaching a recycling rate of over 60%.

Integrated waste management, waste minimisation and prevention (which provides the highest level of environmental protection) remains a key objective.



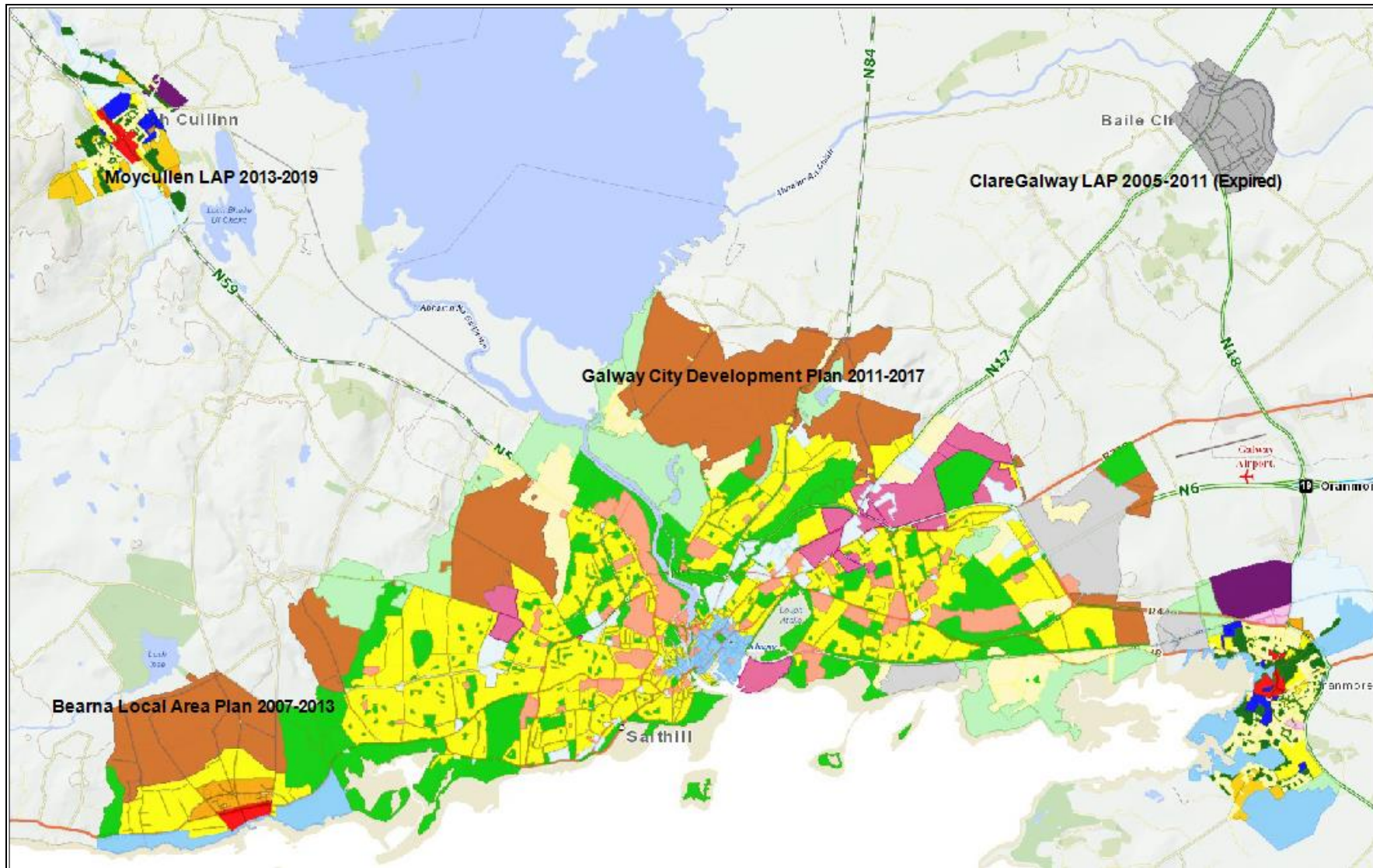


Figure 5.8 Land use Zoning Objectives within Study Area

## 5.8 Architectural, Archaeological and Cultural Heritage;

Galway has a unique and valuable heritage, including a strong medieval architectural and archaeological legacy. Balancing development pressures and the protection of this heritage can pose a challenge, however, there have been successful examples of restoration and reuse within the city that both enhance the value of property and its surrounds.

### 5.8.1 Architectural Heritage

Architectural heritage is protected through inclusion of important structures on the Record of Protected Structures (RPS) and the preservation of the character of Architectural Conservation Areas. Where a structure is protected, the protection includes the interior and exterior of the structure, its curtilage and other structures within that curtilage. Protected Structure status does not preclude development or alteration but may require planning permission for works that are not exempted development. Examples of protected structures within the city include: Lynch's Castle, Mutton Island lighthouse, NUIG Library Building, Liam Mellows statue at Eyre Square and the bridges, weirs, walls embankments, piers and other associated infrastructure of the rivers and waterways in the city. Figure 5.9 shows the location of Protected Structures and National Monuments within the overall area and city region of the Galway Transport Strategy Study Area.

The study area also contains a number of Architectural Conservation Areas because of their important streetscape value and special interest.

### 5.8.2 Archaeology

Archaeology includes recorded monuments listed under National Monuments legislation. Galway has a rich archaeological heritage, which extends from the Mesolithic, medieval, post-medieval periods to industrial archaeology. The urban structure of the city contains a record of the past, where the old medieval and late medieval town is revealed in the narrow street network and multi-period buildings, which contain the remains and fragments of medieval architecture.

Given Galway's medieval heritage, most of the city centre is designated as a Zone of Archaeological Potential (ZAP). Industrial archaeology such as canal walls, piers and millraces show the evolution of industry in the city. All archaeological sites are protected under the National Monuments Acts (1930 - 2004), the responsibility for which lies primarily with the Heritage Services of the Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs (DAHRRG). The city is a member of the Irish Walled Towns Network and worldwide Walled Towns Friendship Circle, which seeks to preserve, enhance and promote surviving town walls and defenses. In 2013, the Galway City Walls Conservation Management and Interpretation Plan was completed. This sets out a path for the future care of the city medieval walls with the objective of increasing public awareness and understanding of this important part of Galway's heritage. The historical significance of the walls is also an important part of the heritage tourism product of the city and the Galway City Walls Plan highlights the potential for increased tourist attraction. Proposals are also advanced to carry out conservation management plans for Merlin Castle, Terryland Castle, Menlo Castle and for the Browne Doorway.

The Strategy also takes account of plans and studies including the Galway City Heritage Plan 2015 – 2020, Galway City Council Arts Plan, City Walls Conservation Management and



Interpretation Plan (2013) and the Galway City Museum Strategic Plan (2013), as well as the City's success in their bid for the European Capital of Culture in 2020.

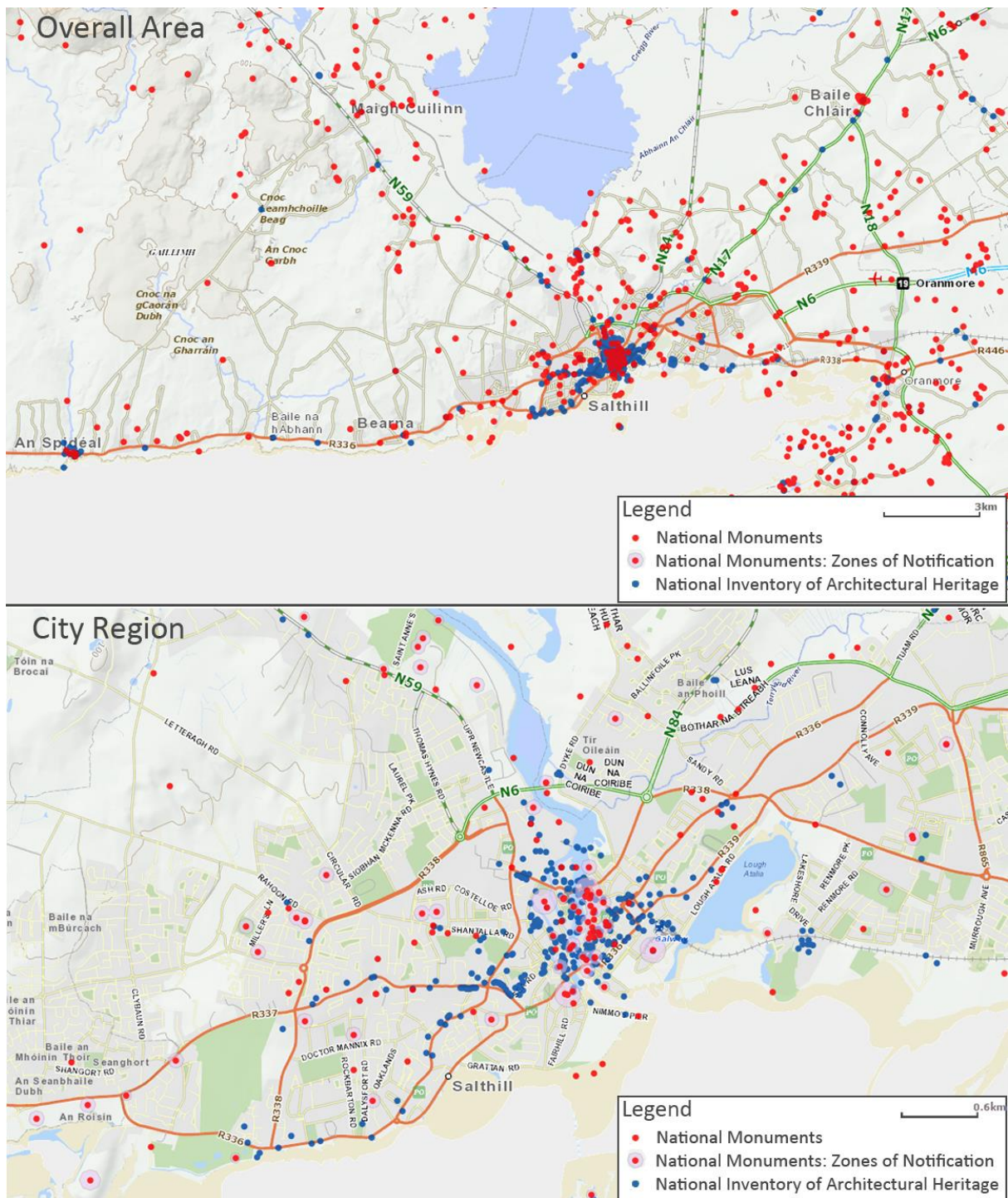


Figure 5.9: National Monuments and Inventory of Architectural Heritage

## 5.9 Landscape

The importance of landscape and visual amenity and the role of its protection are recognised in the Planning and Development Act 2000 as amended, which requires that Development Plans include

objectives for the preservation of the landscape, views and the amenities of places and features of natural beauty.

Galway's landscape provides distinctiveness and continuity and is an important contributor to quality of life for people in the city and the economy. It is a resource to be used and managed in a sustainable manner, having regard to its sensitivity and character.

Within the study area for the GTS, the heritage and sites covered by ecological designations form important components of the city's landscape. The Galway City Recreation and Amenity Needs Study 2008 (RANS) and the Development Plan advocates the sustainable use and management of natural heritage areas and recreational and amenity open spaces in the city.

The Recreation and Amenity Needs Study (RANS) further developed a green network approach of previous Development Plans and identified a significant water amenity resource in the city that is largely underused. The green network in the Galway City Development Plan 2011-2017 (and also the Draft Galway City Development Plan 2017-2023) includes a hierarchy of open space which supports a network of natural heritage areas and wildlife corridors and features of the natural landscape in the city. The green network approach promotes conservation and sustainable use as endorsed by a number of national and local policy documents including the National Heritage Plan 2002, National Biodiversity Plan 2011-16, National Landscape Strategy for Ireland 2015–2025, Galway City Heritage Plan 2015 – 2020, Galway City Biodiversity Action Plan 2014-2024 and Galway City Recreation and Amenity Study 2008. The approach also has the ability to support climate change adaptation and mitigation through use of open space for Sustainable Urban Drainage Systems (SUDS) and flood risk management. This is in line with the evolving green infrastructure policy approach, being progressed at European and national level. Green infrastructure can be described as a strategically planned network of natural and semi-natural areas with other

Issues considered in the Strategy include protecting and enhancing the landscape and biodiversity, improving access to beaches, lakes, the river and canal system, enhancing and increased accessibility to sports infrastructure. In proposing measures, the challenge is also to conserve areas of heritage value. With careful planning the green network can also consider the significant role that the green network can play in climate adaptation through use of open space for Sustainable Urban Drainage Systems (SUDS) and flood risk management.

Another significant impact can relate to visual impact. Landscaped areas and planting associated with transport measures can have a positive visual impact within the built environment. Hedgerows, trees, and stone walls should also be incorporated into measures wherever possible. Galway participates in the World Health Organisation (WHO) Healthy Cities Project and All-Island Network of Healthy Cities, both of which aim to enhance the health of the city's people and their environment. Actions of the project include encouraging walking and cycling, accessibility and active living. The Strategy supports the Development Plan policy to promote the city as a Healthy City.

## 5.10 Overall Environmental Sensitivities

The baseline information outlined above identifies overall environmental sensitivities in the area within which the Galway Transport Strategy measures are proposed. Where measures of the Strategy and environmentally sensitive areas overlap or enter within a potential zone of influence on European Sites, there is an increased likelihood that development will conflict with these sensitivities and cause environmental deterioration, if mitigation is not applied.

This does not preclude development, though highlights the need for mitigation measures to be integrated into the Strategy prior to its implementation.

## 6.0 Strategic Environmental Objectives

### 6.1 Introduction

The primary objective of the SEA is to provide for a high level of environmental protection and to contribute to the integration of environmental considerations into the preparation and adoption of the Galway Transport Strategy.

Article 5 of the SEA Directive requires the identification of environmental protection objectives. These Strategic Environmental Objectives (SEOs) assist in the prediction, description and monitoring of impacts on the environment as a result of the Galway Transport Strategy. The primary source used in the formulating the environmental protection objectives is Table 4B of the DEHLG SEA Guidelines for Regional and Planning Authorities (2004). These objectives have been amended and supplemented with additional draft environmental protection objectives relevant to the Galway Transport Strategy and its study area.

Indicators allow impacts to be assessed and highlighted in a simple and effective manner. Indicators can also be used as standards to form the basis of a monitoring programme for the Strategy (outlined in Chapter 10 of this Environmental Report).

While Indicators facilitate the monitoring aspect of the SEA, targets provide a realistic and achievable target to which the Local Authorities can work towards.

All SEOs, indicators and targets are provided on Table 6.1 while background to these measures is provided in the subsections below.

**Table 6.1: Strategic Environmental Objectives, Indicators and Targets of the GTS**

Environmental Component	Strategic Environmental Objectives	Indicators	Targets
<b>BIODIVERSITY, FLORA &amp; FAUNA</b>	<p>B1: Protect, conserve and promote the enhancement of habitats, species and their sustaining resources in international and national designated nature conservation sites, proposed designated nature conservation sites, local biodiversity areas and areas of Annex I habitat resource and prevent adverse impacts (direct, cumulative and indirect) from development.</p> <p>B2: Protect and conserve rare and threatened habitats and species, including those listed in the Habitats Directive and the Wildlife Acts.</p>	B1&2: Conservation status of habitats and species as assessed under Article 17 of the Habitats Directive	B1&2: Maintenance of favourable conservation status for all habitats and species protected under National and International legislation to be unaffected by implementation of the Strategy

Environmental Component	Strategic Environmental Objectives	Indicators	Targets
	<p>B3: Protect and enhance the status of aquatic ecosystems and, with regard to their water needs, terrestrial ecosystems and wetlands directly depending on the aquatic ecosystems.</p> <p>B4: Protect and conserve the marine environment and promote the appropriate sustainable management of the coastal zone taking cognisance of potential direct, indirect and cumulative impacts on European sites.</p>	B3&4: Conservation Status of Ramsar sites and habitat type within these wetland ecosystems as identified in Annex I of Habitats Directive.	B3&4: Maintenance of favourable conservation of Ramsar sites and Annex I habitats under the Habitats Directive to be unaffected by implementation of the Strategy.
	B5: Support measures to control and manage alien/ invasive species avoiding spreading thereof.	B5: Level of Compliance with Reg. 49 restricting the introduction of any plant species in Part I of 3 <sup>rd</sup> Schedule of the 2011 Birds and Habitats Regulations and S.40 of Wildlife Act 1976.	B5: No introduction of any invasive species arising from of implementation of any part of the Strategy.
	B6: Avoid adverse effects on vegetation from transport emissions arising from increases in traffic flows.	B6: Measurable loss of vegetation near congested areas	B6: Reduction of transport emissions and improved quality of nearby vegetation.
	B7: Promote beneficial effects through ecological enhancement interventions along new and existing transport corridors.	B7: Assessment of impact to ecology arising from new and existing corridors.	B7: implementation of ecological enhancement strategies along transport corridors.
<b>POPULATION</b>	<p>P1: Promote good quality of life based on high-quality residential, working and recreational environments and on sustainable travel patterns.</p> <p>P2: Promote social inclusion and integrated living in the city.</p>	P1 & P2: Reduction in travel times to and within the city and alleviation of traffic congestion. Increased modal shift from private car to public transport, walking and cycling. Improvements to	P1 & P2: Create a good quality of life, the provision of improved physical and social infrastructure, and reduce travel times and traffic congestion and allow for an integrated sustainable transport and land use system that eases movement to and within the city and



Environmental Component	Strategic Environmental Objectives	Indicators	Targets
		provision of social and physical infrastructure including availability of initiatives, public and community facilities, services and amenities public transport / smarter travel	promotes sustainable transport modes
	P3: Enhance conditions for people with physical mobility limitations, improving access to and use of transport projects and policy recommendations (e.g. improving physical access to modes of public transport through the provision of lifts, station / stop access ramps, mobile platform ramps etc.).	P3: A qualitative assessment of the likely potential impacts arising from changes to the transport network.	P3: Increase access to employment opportunities, especially for those who are physically, economically or socially disadvantaged.
HUMAN HEALTH	H1: To support health improvements and benefits from transport-related activities.  H2: Improve effects arising from changes in physical fitness and the extent to which people are encouraged to walk and cycle on a regular basis.	H1: A qualitative assessment of the likely potential impacts from changes to the transport network.	H1: This Objective is focused on potential health improvement and benefits, which could arise from transport-related activities, principally promoting and encouraging greater uptake of walking and cycling.
	H3: Reduce effects arising from transport-related accidents.  H4: Improve changes in accessibility to employment/economic, social and educational opportunities	H3&4: A qualitative assessment of the likely potential impacts arising from transport improvements.	H3&4: Address and reduce risks to human safety and health from transport activities and infrastructure relating primarily to road traffic accidents.
	H5: Improve potential effects on the quality of life arising from the Strategy (e.g. integrated transport and land use planning/reduced commuting/improved journey times, greater journey reliability, greater journey	H5: Extent of urban/suburban areas within the catchment of transport infrastructure and services	H5: To maximise the extent of urban/suburban areas within the catchment of transport infrastructure and services

Environmental Component	Strategic Environmental Objectives	Indicators	Targets
	options, more comfortable journeys etc.).		
<b>SOILS INCLUDING GEOLOGY</b>	S1: Maintain the quality of soils.	S1: Quality of soils status through monitoring of historical landfill sites and enforcement and implementation of waste permit regulations.	S1: Ensure all soils remain healthy and capable of supporting human activities.
	S2: Protect and conserve important City / County geological and geomorphological heritage sites.	S2: Results of ground investigations and compliance with Guidelines on Procedures for the Assessment and Treatment of Geology, Hydrology and Hydrogeology for National Road Schemes.	S2: Ensure geological and geomorphological heritage is protected through adequate geological surveying and monitoring.
	S3: Maximise the sustainable re-use of brownfield lands, encouraging more compact urban development, rather than developing greenfield lands.	S3: Extent of brownfield land reused and regenerated which has been facilitated by the Strategy	S3: Maximise the sustainable reuse and regeneration of brownfield sites leading to higher efficiency of land utilisation, sustainable mobility and a reduction in the need to develop greenfield lands;
	S4: Avoid potential negative effects due to developments on important and vulnerable soil resources (e.g. development on prime agricultural land).	S4: Qualitative assessment of effects on important agricultural soil resources.	S4: Protection of agricultural lands with rich soil resources.
	S5: Minimise the consumption of non-renewable sand, gravel and rock deposits.	S5: Increase in recycling, and recovery of C&D waste, enforcement and implementation of waste permit regulations.	S5: Reuse and recycle C&D waste at source and encourage use of appropriate materials from local sources which have less 'embodied energy'



Environmental Component	Strategic Environmental Objectives	Indicators	Targets
	S6: Avoid increasing increases in riverine and / or coastal erosion.	S6: Assess movement in the position of shoreline	S6: Ensure development arising from the implementation of any part of the strategy will not contribute to coastal erosion.
WATER	W1: Maintain and improve, where possible, the quality of surface water, rivers, lakes and groundwater to meet the requirements of the River Basin Management Plans.	W1: Classification of Overall Status (comprised of ecological and chemical status) under the European Communities Environmental Objectives (Surface Waters) Regulations 2009 (SI No. 272 of 2009)	W1: Not to cause deterioration in the status of any surface water or affect the ability of any surface water to maintain 'good status'
	W2: Maintain and improve, where possible, the quality of river, transitional and coastal waters, and to prevent the contamination of bathing waters.  Support the maintenance and improvement of drinking water supplies.	W2: Mandatory and Guide values as set by the EU Bathing Water Directive and transposing Bathing Water Quality Regulations (SI No. 79 of 2008)	W2: To contribute towards the achievement of - as a minimum - Mandatory values and, where possible, to achieve Guide values as set by the EU Bathing Water Directive and transposing Bathing Water Quality Regulations (SI No. 79 of 2008)
	W3: Support the promotion of water conservation.  Avoid discharges of polluting substances to waters.	W3: Check Water Body Status and compliance with Water Framework.	W3: Prevent deterioration and maintain high status where it exists.
	W4: Avoid conflicts with the policies and programmes in relevant River Basin Management Plans (RBMPs) under the Water Framework Directive (WFD) from transport projects and policy recommendations.	W4: Compliance of strategy with Regional River Basin Management Plans	W4: Ensure Strategy objectives are compliant with relevant River Basin Management Plan.
	W5: Avoid increased risk of flooding (e.g. increased development in areas which may flood, siting of transport	W5: Competition of Flood Risk Assessments for	W5: Protect against and reduce likelihood of flood risk for future infrastructure projects.

Environmental Component	Strategic Environmental Objectives	Indicators	Targets
	projects in areas which may flood).	selected development sites.	
<b>AIR QUALITY, CLIMATE &amp; NOISE</b>	A1: Promote beneficial effects on air quality arising from reductions in traffic flows (e.g. arising from modal transfer from car to public transport, walking and cycling).	A1: Compliance with Ambient Air Quality and Cleaner Air for Europe (CAFÉ) Directive and associated legislation	A1&2: To contribute towards compliance with legislative air quality limits and target values
	A2: Avoid adverse effects that may arise in areas where there are increases in traffic flows.	A2: Greenhouse gas emissions from transport	
	A3: Promote reduction and minimisation of CO <sub>2</sub> transport emissions. (e.g. arising from modal transfer from car to public transport, walking and cycling).	A3: percentage of population travelling to work, school or college by public transport, bicycle or walking.	A3: An increase in the percentage of the population travelling to school or work by Public Transport, bicycle or walking.
	A4: Minimise noise and vibration arising from traffic with regard to the Environmental Noise Directive and associated Noise regulations (S.I 140 2006)	A4: Monitoring of noise and vibrations from selected nearby locations.	A4: To remain within noise thresholds identified in Noise Regulations during construction and operation.
<b>MATERIAL ASSETS</b>	M1: Maximise use of the existing built environment in a sustainable and efficient manner.  M2: Encourage sustainable modes of transport. Promote potential reductions in fuel consumption from reductions in traffic flows (e.g. arising from modal transfer from car to public transport, walking and cycling), contributing to an improved fuel security position.	M1&2: Percentage of population travelling to work, school or college by public transport or non-motorised means	M1&2: An increase in the percentage of the population travelling to work, school or college by public transport or non-motorised means.
	M3: Avoid negative effects on public assets (e.g. disruption to	M3: Assessment of likely of impacts of works that form part	M3: Avoidance / protection of public assets in construction works that arise from

Environmental Component	Strategic Environmental Objectives	Indicators	Targets
	utilities from new or improved infrastructure).	of strategy on utilities.	implementation of any part of the Strategy.
	M4: Avoid potential adverse effects that may arise in areas where there are increases in traffic flows.	M4: Percentage increase in traffic flows in certain areas.	M4: Reduction or prevention of further traffic increases.
	M5: Promote waste prevention and minimisation.	M5: Percentage increase in recovery and recycling of waste	M5: Increase in the recovery and recycling of waste and reduction.
<b>CULTURAL HERITAGE</b>	CH1: Promote the protection and conservation of the cultural, built archaeological and linguistic heritage of the city and its environs, and where appropriate enhance character.  CH2: Avoid potential adverse effects that may arise from increases in traffic flows.  CH3: Avoid potential adverse effects on designated and important sites from land-take for new or improved transport infrastructure.	CH1,2&3: Check for Infringement on entries to the Record of Monuments including Zones of Archaeological potential and infringement on Entries to the Record of Protected Structures and architectural conservation areas arising from implementation of part of the Strategy	CH1,2&3: Protect entries to the Record of Monuments and Places - including Zones of Archaeological Potential (and their context of the above within the surrounding landscape where relevant) from adverse effects resulting from the Strategy.
	CH4: Promote potential beneficial effects on setting of cultural heritage features (e.g. townscapes, Conservation Areas, heritage buildings etc.) arising from reductions in the presence of heavy traffic flows.	CH4: Quantitative assessment of reduction traffic flow in proximity of these designated sites.	CH4: Increase accessibility to cultural heritage though a reduction in traffic flows unrelated to tourist/cultural activities.
<b>LANDSCAPE</b>	L1: Conserve and enhance the built heritage and landscape features of the city and its environs.  L2: Avoid adverse effects on the integrity of designated sites and landscape character due to land take for new or improved transport infrastructure.	L1, L2 & L3: Assessment of number of concerns received from Statutory Consultees with regard to the most sensitive and valuable landscapes within the county resulting to implementation of part of the Strategy	L1, L2 & L3: Protection, where possible, of the county's landscapes which are most valuable, sensitive or have protected focal points and views.

Environmental Component	Strategic Environmental Objectives	Indicators	Targets
	L3: Promote potential beneficial effects on landscape and amenity arising from reductions in the presence of heavy traffic flows (e.g. traffic passing through areas important for their landscape value).		
	L4: Promote potential beneficial effects through landscape enhancement interventions along new and existing transport corridors (these measures can be combined with ecological enhancement measures).	L4: Delivery of actions identified under Galway Biodiversity Action Plan and Galway Heritage Plan.  Improvements to the green network	L4: Protect and enhance the green network in a sustainable manner
	L5: Avoid potential negative effects on landscape due to changes in land use policy arising from initiatives.	L5: Number of unmitigated conflicts with the appropriate protection of statutory designations relating to the landscape, including those included in the land use plans of planning authorities	L5: No unmitigated conflicts with the appropriate protection of statutory designations relating to the landscape, including those included in the land use plans of planning authorities

## 7.0 Description of Alternatives

### 7.1 Introduction

Consideration of alternatives is an important aspect of the SEA process and is necessary to evaluate the likely environmental consequences of a range of alternative strategies for the transport needs of the study area within the constraints imposed by environmental conditions. Alternatives should be realistic (i.e. they should meet the objectives of the plan or programme); reasonable (i.e. they should be based on socio-economic and environmental evidence), viable (i.e. they should be technically and financially feasible) and implementable (i.e. they should be realisable within the timeframe and resources of the plan or programme).

Various alternative transport scenarios were considered at an early stage of the process as set out in section 7.2.

### 7.2 Description of Proposed Alternatives

Four main alternative transport scenarios were examined in the preparation of the Galway Transport Strategy:

- Alternative 1: Do-minimum Approach
- Alternative 2: Prioritisation of a Road Transport Based Approach
- Alternative 3: Prioritisation of a Public Transport Based Approach
- Alternative 4: Provision of an Integrated Transport Based Approach

#### 7.2.1 *Alternative 1: 'Do-minimum' Approach.*

A 'Do-minimum' alternative envisages no significant interventions in the existing Galway Transport Network. Specific objectives relating to transportation as set out in the Galway City and County Development Plans, as well as within various Local Area Plans, would continue to be reviewed and implemented on an individual project by project basis. The principal characteristics of the 'Do-minimum' approach are:

- No major changes proposed to existing public transport infrastructure
- Proposed N6 Galway City Ring Road would not be provided
- Continued reliance on private car use
- Continued traffic congestion and journey time unreliability
- Continued over capacity at existing N6 junctions
- Continued prolonged journey times and delays on the current bus network due to limited available road space for public transport
- Continued limitations on available road space for safe and comfortable cycling and pedestrian movement.

#### 7.2.2 *Alternative 2: Prioritisation of a Road Transport Based Approach*

The road based alternative proposes the proposed N6 Galway City Ring Road as a key component and also includes for upgrades of junctions along the existing N6. The approach does not envisage any major investment on public transport infrastructure.

It is envisaged that the increased road provision and improvements will enhance car and traffic movements, at least initially.

The principal characteristics of this road based transport approach are:

- Provision of the N6 Galway City Ring Road
- Upgrade works to existing N6 junctions
- Restriction of HGV access within the city centre to only those vehicles with destinations (or origins) in the city centre
- Manage the routing and timing of deliveries to the central area
- No additional restrictions on private car use in the city centre
- No specific provisions for further improvements to alternative modes of transport including public transport, cyclists and/or pedestrians

Under this alternative, early consideration was also given to the omission of the N6 Galway City Ring Road. However, traffic modelling studies indicated that no appreciable improvement over the 'do-minimum' scenario would be achieved without the increased flexibility and road space that would be generated by provision of the N6 Galway City Ring Road. Therefore, this alternative is only a realistic or viable option when it includes provision of the N6 Galway City Ring Road.

### 7.2.3 *Alternative 3: Prioritisation of a Public Transport Based Approach*

The public transport based alternative seeks to prioritise provision of public transport measures with no further improvement to the road network.

The principal characteristics of this public transport based approach are:

- Provision of a high frequency bus-based cross-city public transport service (with interchange) through the city centre
- Reduction in vehicular movement through the city centre
- Reduction in the dominance of car-parking within the city
- Re-allocation of road space to public transport in the city centre
- Provision of an interchange between regional and local public transport through an improved transport hub
- Provision of suitable drop off/pick up locations in the city for Tourist/Visitor Coaches
- Expansion of the Bike Share Scheme
- Additional pedestrian crossings at key locations and the development of a public transport and cycling network that is conducive to school travel
- Re-allocation of road space to on-road cycleways to encourage a greater modal shift from the private car to cycling.

Under this alternative, consideration was also given to the provision of a frequent light-rail service. However, this option was considered neither reasonable nor viable. Rail-based systems are generally employed where 'demand' exceeds 3,000 passengers per hour. By contrast, the maximum single directional passenger demand in Galway is approximately 1,100 over a 1 hour period, which is significantly less than the capacity required to provide and maintain an economically-viable sustainable light rail service. A light rail based scenario was not considered further in the assessment.

This alternative does not include provision of additional cycle and pedestrian facilities in the form of greenways, which are objectives of both Galway City and Galway County Development Plans.

#### 7.2.4 *Alternative 4: Integrated Transport Based Approach*

The integration of improvements to the public transport realm, including provision of greenways and cycleways, whilst improving road based transport for private users include a combination of both public and private transport elements. This approach provides for sequential provision of transport related measures which are aimed at reducing existing congestion in order to provide an improved public transport service and improved infrastructure for alternative modes of transport such as walking and cycling.

The effective operational characteristics of this approach will lead to a reduction in private cars travelling through the city centre replaced by a reliable bus service operating on reallocated road space. The reallocation of road space from a car based mode of travel to cycling and walking modes will encourage and facilitate journeys across the city centre by foot and by bicycle

### 7.3 Evaluation of Alternatives

This section provides a comparative evaluation of the environmental effect of implementing the four main alternatives and determines whether each alternative is likely to have a beneficial, neutral or negative relationship with the Strategic Environmental Objectives (SEO's) outlined in Chapter 6. Using the above SEOs, the four alternatives are evaluated against these environmental objectives, the results of the assessment are presented in Table 7.1.

### 7.4 Outcome of Alternatives Assessment

The most preferable outcome from the Alternatives Assessment is Alternative 4, which provides for a high degree of integration between measures focused on road, public transport, cycling, pedestrian and public realm improvements.

An assessment of the alternatives has shown that an increase in public transport services alone will only increase congestion and delays rendering this approach less optimal than an integrated approach. The introduction of a N6 GCRR Galway City (GCRR) to relieve cross city traffic will lead to a reduction in traffic congestion by approximately 20% thereby allowing space to reallocate road space to public transport and active modes such as cycling and walking along priority routes.

This approach allows for the inclusion of a new road link to the north of the city, which will be sequentially followed by public transport measures to restrict traffic on the Salmon Weir Bridge to public transport only and reduce volumes of traffic on Quincentenary Bridge and Wolfe Tone Bridge.

The N6 GCRR to the north of the city proposed can deliver the necessary road capacity whilst also supporting the delivery of sustainable transport measures. The influence of the N6 GCRR on city centre road space will allow for the reallocation of road space previously used by private motor vehicles to be utilised for exclusively a public bus network, cyclists and pedestrians. This will allow for the provision of a high frequency bus network with improved priority through the city which can only be achieved through rerouting existing traffic travelling through the city centre to a more suitable orbital route.



The medium to long-term outcome of this alternative would allow for the provision of an effective high frequency bus network in Galway City and its environs (with improved priority through the city centre) resulting in both increased public transport usage in the city, improved corridors for alternative modes of transport and reduced congestion on the major river crossings in the city arising from private motor vehicles.

Though Alternative 4 presents itself as the preferred scenario, a range of environmental uncertainties, relating to biodiversity exist which primarily relates to the N6 GCRR project and proposed Greenways. Projects of this nature will be subject to a detailed Environmental Impact Assessment and Appropriate Assessment where a suite of detailed mitigation measures will be developed to reduce any adverse environmental impacts that might arise from these projects.

**Table 7.1** SEA Assessment of Alternative Scenarios

Assessment against SEA Objectives and Alternative Scenarios				
SEA Objective	Do-Minimum Approach	Prioritisation of Road Transport Based Approach	Prioritisation of Public Transport Based Approach	Integrated Transport Approach
<b>BIODIVERSITY</b>				
B1: Protect, conserve and promote the enhancement of habitats, species and their sustaining resources in international and national designated nature conservation sites, proposed designated nature conservation sites, local biodiversity areas and areas of Annex I habitat resource and prevent adverse impacts (direct, cumulative and indirect) from development.	NEUTRAL	UNCERTAIN	NEUTRAL	UNCERTAIN
B2: Protect and conserve rare and threatened habitats and species, including those listed in the Habitats Directive and the Wildlife Acts.	NEUTRAL	UNCERTAIN	NEUTRAL	UNCERTAIN
B3: Protect and enhance the status of aquatic ecosystems and, with regard to their water needs, terrestrial ecosystems and wetlands directly depending on the aquatic ecosystems.	NEUTRAL	UNCERTAIN	NEUTRAL	UNCERTAIN
B4: Protect and conserve the marine environment and promote the appropriate sustainable management of the coastal zone taking cognisance of potential direct, indirect and cumulative impacts on European sites.	NEUTRAL	NEUTRAL	NEUTRAL	UNCERTAIN
B5: Support measures to control and manage alien/ invasive species avoiding spreading thereof.	NEUTRAL	UNCERTAIN	NEUTRAL	UNCERTAIN
B6: Avoid adverse effects on vegetation from transport emissions arising from increases in traffic flows.	NEGATIVE	NEGATIVE	POSITIVE	UNCERTAIN
B7: Promote beneficial effects through ecological enhancement interventions along new and existing transport corridors.	NEUTRAL	UNCERTAIN	NEUTRAL	UNCERTAIN
<b>POPULATION</b>				

SEA Objective	Do-Minimum Approach	Prioritisation of Road Transport Based Approach	Prioritisation of Public Transport Based Approach	Integrated Transport Approach
P1: Promote good quality of life based on high-quality residential, working and recreational environments and on sustainable travel patterns.	NEGATIVE	NEGATIVE	NEUTRAL	POSITIVE
P2: Promote social inclusion and integrated living in the city.	NEGATIVE	NEGATIVE	POSITIVE	POSITIVE
P3: Enhance conditions for people with physical mobility limitations, improving access to and use of transport projects and policy recommendations (e.g. improving physical access to modes of public transport through the provision of lifts, station / stop access ramps, mobile platform ramps etc.).	NEGATIVE	NEGATIVE	NEUTRAL	POSITIVE
<b>HUMAN HEALTH</b>				
H1: To support health improvements and benefits from transport-related activities.	NEGATIVE	NEGATIVE	NEGATIVE	POSITIVE
H2: Improve effects arising from changes in physical fitness and the extent to which people are encouraged to walk and cycle on a regular basis.	NEGATIVE	NEGATIVE	NEGATIVE	POSITIVE
H3: Reduce effects arising from transport-related accidents.	NEGATIVE	NEGATIVE	POSITIVE	POSITIVE
H4: Improve changes in accessibility to employment/economic, social and educational opportunities as accessing these can be detrimental to health.	NEGATIVE	NEGATIVE	NEGATIVE	POSITIVE
H5: Improve potential effects on the quality of life arising from the Strategy (e.g. integrated transport and land use planning/reduced commuting/improved journey times, greater journey reliability, greater journey options, more comfortable journeys etc.).	NEGATIVE	NEGATIVE	POSITIVE	POSITIVE
<b>SOILS AND GEOLOGY</b>				
S1: Maintain the quality of soils.	NEUTRAL	NEGATIVE	NEUTRAL	NEGATIVE

SEA Objective	Do-Minimum Approach	Prioritisation of Road Transport Based Approach	Prioritisation of Public Transport Based Approach	Integrated Transport Approach
S2: Protect and conserve important City / County geological and geomorphological heritage sites.	NEUTRAL	NEGATIVE	NEUTRAL	NEGATIVE
S3: Maximise the sustainable re-use of brownfield lands, encouraging more compact urban development, rather than developing greenfield lands.	NEUTRAL	NEGATIVE	POSITIVE	UNCERTAIN
S4: Avoid potential negative effects due to developments on important and vulnerable soil resources (e.g. development on prime agricultural land).	NEUTRAL	NEGATIVE	NEUTRAL	NEGATIVE
S5: Minimise the consumption of non-renewable sand, gravel and rock deposits.	NEUTRAL	NEUTRAL	NEUTRAL	NEGATIVE
S6: Avoid increasing increases in riverine and / or coastal erosion.	NEUTRAL	NEUTRAL	NEUTRAL	NEUTRAL
<b>WATER</b>				
W1: Maintain and improve, where possible, the quality of surface water, rivers, lakes and groundwater to meet the requirements of the River Basin Management Plans.	NEGATIVE	NEUTRAL	NEUTRAL	NEUTRAL
W2: Maintain and improve, where possible, the quality of river, transitional and coastal waters, and to prevent the contamination of bathing waters.	NEUTRAL	NEUTRAL	NEUTRAL	NEUTRAL
W3: Support the promotion of water conservation. Avoid discharges of polluting substances to waters.	NEGATIVE	NEUTRAL	NEUTRAL	NEUTRAL
W4: Avoid conflicts with the policies and programmes in relevant River Basin Management Plans (RBMPs) under the Water Framework Directive (WFD) from transport projects and policy recommendations.	NEUTRAL	NEUTRAL	NEUTRAL	UNCERTAIN

SEA Objective	Do-Minimum Approach	Prioritisation of Road Transport Based Approach	Prioritisation of Public Transport Based Approach	Integrated Transport Approach
W5: Avoid increased risk of flooding (e.g. increased development in areas which may flood, siting of transport projects in areas which may flood).	NEGATIVE	NEGATIVE	NEUTRAL	NEUTRAL
<b>AIR QUALITY &amp; CLIMATE</b>				
A1: Promote beneficial effects on air quality arising from reductions in traffic flows (e.g. arising from modal transfer from car to public transport, walking and cycling).	NEGATIVE	NEGATIVE	POSITIVE	POSITIVE
A2: Avoid adverse effects that may arise in areas where there are increases in traffic flows.	NEGATIVE	NEGATIVE	POSITIVE	POSITIVE
A2: Promote reduction and minimisation of CO <sub>2</sub> transport emissions. (e.g. arising from modal transfer from car to public transport, walking and cycling).	NEGATIVE	NEGATIVE	POSITIVE	UNCERTAIN
A3: Minimise noise and vibration arising from traffic with regard to the Environmental Noise Directive and associated Noise regulations (S.I 140 2006)	NEGATIVE	NEGATIVE	POSITIVE	UNCERTAIN
<b>MATERIAL ASSETS</b>				
M1: Maximise use of the existing built environment in a sustainable and efficient manner.	NEGATIVE	NEGATIVE	NEUTRAL	POSITIVE
M2: Encourage sustainable modes of transport. Promote potential reductions in fuel consumption from reductions in traffic flows (e.g. arising from modal transfer from car to public transport, walking and cycling), contributing to an improved fuel security position.	NEGATIVE	NEGATIVE	NEUTRAL	POSITIVE
M3: Avoid negative effects on public assets (e.g. disruption to utilities from new or improved infrastructure).	NEGATIVE	NEGATIVE	NEUTRAL	UNCERTAIN
M4: Avoid potential adverse effects that may arise in areas where there are increases in traffic flows.	NEGATIVE	NEGATIVE	POSITIVE	UNCERTAIN

SEA Objective	Do-Minimum Approach	Prioritisation of Road Transport Based Approach	Prioritisation of Public Transport Based Approach	Integrated Transport Approach
M5: Promote waste prevention and minimisation.	NEUTRAL	NEGATIVE	NEUTRAL	NEGATIVE
<b>CULTURAL HERITAGE</b>				
CH1: Promote the protection and conservation of the cultural, built archaeological and linguistic heritage of the city and its environs, and where appropriate enhance character.	NEGATIVE	UNCERTAIN	NEGATIVE	UNCERTAIN
CH2: Avoid potential adverse effects that may arise from increases in traffic flows.	NEGATIVE	NEGATIVE	POSITIVE	POSITIVE
CH3: Avoid potential adverse effects on designated and important sites from land-take for new or improved transport infrastructure.	NEUTRAL	NEGATIVE	NEUTRAL	NEGATIVE
CH4: Promote potential beneficial effects on setting of cultural heritage features ( <i>e.g.</i> townscapes, Conservation Areas, heritage buildings <i>etc.</i> ) arising from reductions in the presence of heavy traffic flows.	NEGATIVE	NEGATIVE	POSITIVE	POSITIVE



SEA Objective	Do-Minimum Approach	Prioritisation of Road Transport Based Approach	Prioritisation of Public Transport Based Approach	Integrated Transport Approach
<b>LANDSCAPE</b>				
L1: Conserve and enhance the built heritage and landscape features of the city and its environs.	NEUTRAL	UNCERTAIN	NEUTRAL	UNCERTAIN
L2: Avoid adverse effects on the integrity of designated sites and landscape character due to land take for new or improved transport infrastructure.	NEGATIVE	UNCERTAIN	NEGATIVE	UNCERTAIN
L3: Promote potential beneficial effects on landscape and amenity arising from reductions in the presence of heavy traffic flows (e.g. traffic passing through areas important for their landscape value).	NEGATIVE	NEGATIVE	POSITIVE	POSITIVE
L4: Promote potential beneficial effects through landscape enhancement interventions along new and existing transport corridors (these measures can be combined with ecological enhancement measures).	NEUTRAL	NEGATIVE	NEUTRAL	UNCERTAIN
L5: Avoid potential negative effects on landscape due to changes in land use policy arising from initiatives.	NEGATIVE	NEGATIVE	NEUTRAL	POSITIVE

## 8.0 Environmental Assessment of Galway Transport Strategy

### 8.1 Introduction

This section provides a comparative evaluation of the environmental effect of implementing the specific measures and components of the Galway Transport Strategy and determines whether each measure is likely to have a beneficial, neutral, uncertain or negative relationship with the Strategic Environmental Objectives (SEO's) outlined in Chapter 6. Using the above SEOs, the measures of the Strategy are evaluated in the context of their impact on these environmental objectives, the results of the assessment are presented in a table format below. The potential effects are categorised as follows:

- +3 = Very significant beneficial impact
- +2 = Significant beneficial impact
- +1 = Not significant beneficial impact
- ? = Uncertain impact
- 0 = Neutral or No relationship
- -1 = Not significant negative impact
- -2 = Significant negative impact
- -3 = Very significant negative impact

Where the evaluation identifies a potential uncertain or negative impact with the status of an SEO, the relevant SEO code and provision is entered into a Mitigation Table (Table 9.1) to assess what mitigation is available to offset uncertain or potentially negative impacts arising from the provision.

### 8.2 Interrelationship between Environmental Components.

The environment is both complex and dynamic and the various elements of the environment interact in an equally complex and dynamic manner. The permutations can be numerous; however at a simplistic level the principal interactions can be either qualified or quantified in most instances.

These interactions can be either benign or unfavourable; can be either proportionate or synergistic; can be short lived or permanent. In addition an event, an individual action or an ongoing activity can have an effect on one or more aspects of the environment. This effect may differ in magnitude, type and duration across several different aspects of the environment.

For example the potential exists for discharges of treated effluent from wastewater plants to surface water systems to impact negatively on water quality. Similarly the use of septic tanks can impact negatively on the quality of ground water resources if working inefficiently or inappropriately sited. This report has attempted to deal with the issues at a 'root' level thereby diminishing the necessity to discuss further the possible and numerous interactions between the various environmental receptors.

This environmental report has approached each of the environmental receptors on an individual basis though it is fully cognisant of the relationship between the various elements. The report has therefore attempted to present the data in such a way as to indicate fully the potential for impacts on other aspects of the environment where they may occur or indeed are likely to occur.

To highlight the extent of the relationship between the various elements of the environment the matrix presented in Table 8.1 provides an indication of the interactions present between

environmental receptors. Categories highlighted in **blue** identify where interactions between environmental receptors occur.

The significant aspect of the matrix (is the relationship between human beings and all aspects of the environment. There are three simple conclusions to be drawn from the matrix; people benefit most from a high quality environment; people are collectively responsible for the adverse impacts that can occur; and people are most seriously affected by deterioration in environmental quality.

**Table 8.1 Interrelationship between Environmental Receptors**

		Biodiversity - Flora and Fauna	Human Beings - Population	Human Beings - Health	Soil and Geology	Water	Landscape and Visual Issues	Material Assets - Transportation	Material Assets - Other	Cultural Heritage	Air Quality	Noise
Is this aspect of the environment likely to interact with other aspects of the environment?	Biodiversity - Flora and Fauna											
	Human Beings - Population											
	Human Beings - Health											
	Soils and Geology											
	Water											
	Landscape and Visual Issues											
	Material Assets - Transportation											
	Material Assets - Other											
	Cultural Heritage											
	Air Quality											
	Noise											

**Table 8.2** Environmental Assessment of GTS Measures

Specific Measures/Components	Minus 3 - Potentially Very Significant Negative Impact	Minus 2 - Potentially Significant Negative Impact	Minus 1 - Potentially Not Significant Negative Impact	? - Potentially Uncertain Impact	Zero - Potentially Neutral or No relationship	Plus 1 - Potentially Not Significant Beneficial Impact	Plus 2 - Potentially Significant Beneficial Impact	Plus 3 - Potentially Very Significant Beneficial impact	Comments on Interactions
<b>TRAFFIC NETWORK</b>									
<b>City Centre Traffic Management.</b> <b>Key Changes:</b> Reduces through car movement and traffic speeds in the City Centre; Prioritise Public Transport movements in the city centre;					CH1, CH2, CH3, L1, L2, L4, L5, B1, B2, B3, B6, B7, B4, B5, S1, S2, S4, S5, S6, W1, W2, W3, W4, W5, M3	L3, M1, M2, H1, H2, H3, H4, H5, M5, A4	P1, P2, P3, A1, A2, A3, M4	S3	Restructuring of traffic movement requires only minor physical works as part of its implementation such as signage etc. The measure comprises part of a range of measures in the Strategy which, when sequentially implemented, will serve to reduce traffic congestion and restructure the modes of transport to prioritise public transport, thereby improving the status of a number of SEO's
<b>City Centre Access Network.</b> <b>Key Changes:</b> Bóthar Bhreandáin Uí hÉithir and a section of Fairgreen Road will experience some change in movements, becoming a two-way route for traffic.					L1, L2, L3, L4, L5, CH1, CH2, CH3, CH4, A1, A2, A3, A4, M1, M2, M3, B1, B2, B3, B5, B6, B4, B7, S1, S2, S3, S4, S6, S5, W1, W2, W3, W4, W5, M5	H1, H2, H3, H4, H5, P1, P2, P3			Restructuring of traffic movement requires only minor physical works as part of its implementation such as the introduction of signage. The measure comprise part of a range of measures in the Strategy which, when sequentially implemented, will serve to reduce traffic congestion and restructure the modes of transport to prioritise public transport, thereby improving the status of a number of SEO's
<b>Cross-City Link (Public Transport Corridor)</b> <b>Key Changes:</b> Central corridor traversing the core city centre area which will be restricted to use by public transport vehicles, pedestrians, cyclists and local residential motorised access only.			B1, B2	M3, W1, B3	CH3, L2, L1, L4, L5, B3, B4, B5, B6, B7, S1, S6, S4, S2, W2, W3, W4, W5, S3, M5	CH1, L3, H1, H3, H4, H5, A4,	A1, A2, A3, M1, M2, H2, P1, P2, P3, S4, CH2, CH4		Works for the provision of a new pedestrian river crossing at Galway Cathedral, adjacent to Salmon Weir Bridge has potential to negatively impact Lough Corrib SAC (B1 & B2) and associated habitats disturbance from construction works and through degradation from shading effects. Pedestrian Bridge Construction works also have potential to affect water quality. The status of SEO's relating to Air Quality, Human Health, Cultural Heritage

									and the population will be improved by this provision.
<b>Core City Centre Access. Key Changes:</b> <i>Reallocation of road space to public transport and active modes requiring changes in movements for private cars</i>					L1, L2, L4, L5, CH1, CH2, CH3, CH4, M3, B1, B2, B4, B5, B6, B3, B7, S1, S2, S4, S5, S6, W1, W2, W3, W4, W5, M5	L3, H1,H2, H3, H4, A4	A2, A3, A1, M1, M2, M4, P1,P2, P3, S3, H5,		<i>Reallocation of road space from private transport to public transport and active modes requires only minor physical works as part of its implementation such as the introduction of signage.</i>
<b>Road and Street Network including N6 Galway City Ring Road.</b> <b>Key Changes:</b> <i>Creation of an orbital route, tunnelling and excavation at Lackagh Quarry and upgrades of existing N6 junctions.</i>	A1, A2, A3, M1, M2, H1, H2, H3, S1, S2, S4, W5, A4, M5	L1, L2, CH2, CH3, CH4, B1, B2, B3, B4, B6, B7, B8, W1, W3, W5, H1, H2	M3, B5, S6	H5, W4, P1, P2, P3, CH1, L4, L5	B4,W2	H4, L3	M4, H3		<i>The construction of the N6 GCRRGCRR will improve the SEOs relating access to employment and educational opportunities and will reduce adverse effects from city centre traffic congestion. However, SEO's relating to Air &amp; Climate, soils &amp; Geology, Cultural heritage, Human Health have potential to be negatively impacted in addition to water quality and biodiversity. In isolation, the N6 GCRR is contrary to objectives for more sustainable forms however, is an integral component of Strategy to reduce through car movement in the City Centre allowing for the prioritisation of Public Transport movements in the city centre.</i>
<b>Parking.</b> <b>Key Changes:</b> <i>Variable Message Signage on approaches to the city and an associated Parking Guidance System. Car Parking fee measures to reduce the attractiveness of car travel into City Centre; removal of most of the on-street parking.</i>					CH1, CH2, CH3, CH4, L1, L2, L3, L4, L5, A1, A2, A3, M1, M3, B1, B2, B3, B4, B5, B6, B7, S1, S2, S3, S4, S5, S6, W1, W2, W3, W4, W5, P2, P3, M5, A5	M2, M4, H1,H2,H3, H4, H5, P1			<i>Smaller interventions relating to city centre traffic will provide slight improvements to traffic management within the City and encourage a move from private transport to other modes thereby assisting in the implementation of SEO's relating to Human health.</i>
<b>HGV Management.</b> <b>Key Changes:</b> <i>Restrict HGV access to the city centre to only those vehicles with destinations (or origins) in the city centre; Management of the routing and timing of deliveries to the central area.</i>					CH1, CH2, CH3, CH4, L1, L2, L3, L4, L5, A1, A2, A3, M1, M2, M3, B1, B2, B3, B4, B5, B6, B7, H1, H2, H4, S1, S2, S3, S4, S5, S6, W1, W2, W3, W4, W5, M5	M4, H3, H5, P1, P2, P3, A4			<i>HGV Management will improve the status of SEOs relating traffic management and it interactions with Human Health and the population.</i>

LOCAL PUBLIC TRANSPORT	Minus 3 - Potentially Very Significant Negative Impact	Minus 2 - Potentially Significant Negative Impact	Minus 1 - Potentially Not Significant Negative Impact	? - Potentially Uncertain Impact	Zero - Potentially Neutral or No relationship	Plus 1 - Potentially Not Significant Beneficial Impact	Plus 2 - Potentially Significant Beneficial Impact	Plus 3 - Potentially Very Significant Beneficial impact	Comments on Interactions
<b>Public Transport Service for the Galway City Region.</b> <b>Key Changes:</b> Maximise patronage attraction by providing a high-frequency core public transport network; Provide city-wide network coverage /connectivity to all parts of the city; Provide guaranteed and reliable journey times				M3, A4	L1, L2, L4, L5, CH1, CH3, CH4, M1, B1, B2, B3, B4, B5, S1, S2, S3, S4, S5, S6, B7, H1, H2, W1, W2,W3, W4,W5, M5	L3, CH2, B6, B7, B8	A2, A3, A1, M2, M4, H3, H4	P1, P2, P3	<p><i>The anticipated mode shift from the private car to public transport, cycling and walking, as a result of this strategy will lead to a reduction in transport-related emissions. Certain traffic management re-routings may increase the numbers of cars using certain links, but overall, the integration of a frequent city wide transport network will provide much greater choice in terms of linking origins to destinations and lead to a reduced number of cars on the road.</i></p> <p><i>City-wide network coverage will also contribute to accessibility to employment and services.</i></p>
<b>High Frequency Bus-Based Public Transport Network (Priority Infrastructure Provision)</b> <b>Key Changes:</b> A cross-city bus network based on linking the residential origins to the key destination locations.				M3, A4	CH1, CH3, L1, L2, L4, L5, B1, B2, B3, B4, B5, B7, S1, S2, S3, S4, S5, S6, H1, H2, W1, W2, W3, W4, W5, W6, M5	A1, A2, A3, CH2, CH4, B6, L3,	M1, M2, M4, P1, P2, P3, H3, H4, H5		<p><i>Enhanced bus lane provision, the introduction of Cross City bus network will improve the status of SEOs relating to sustainable mobility and associated interactions with SEOs on Air Quality, Human Health and Population. Any road widening/improved road infrastructure/other works required would be minor and therefore not adversely impact any SEOs.</i></p>
<b>City Centre Public Transport Interchange; Key Changes:</b> Maximise range of destinations served by providing convenient interchange between public transport services; Implement multi-mode ticketing which allows transfer between modes					CH1, CH3, CH4, L1, L2, L3,L4, L5, M1, M3, B1, B2, B3, B4, B5, B7, S1, S2, S3, S4, S5, S6, H1, H2, H3, H4, H5, W1, W2, W3, W4, W5, M5, A4	A1, A2, A3, M2, M4, B6, P1, P2, P3, CH2			<p><i>The Provision of transport interchanges will have a minor positive impact on SEO's relating to Air Quality, the population and sustainable transport and form an essential component of the wider Strategy to maximise patronage attraction to Bus based Public Transport.</i></p>



REGIONAL PUBLIC TRANSPORT	Minus 3 - Potentially Very Significant Negative Impact	Minus 2 - Potentially Significant Negative Impact	Minus 1 - Potentially Not Significant Negative Impact	? - Potentially Uncertain Impact	Zero - Potentially Neutral or No relationship	Plus 1 - Potentially Not Significant Beneficial Impact	Plus 2 - Potentially Significant Beneficial Impact	Plus 3 - Potentially Very Significant Beneficial impact	Comments on Interactions
<b>Supporting Measures for Local Public Transport. Key Changes:</b> <i>Traffic Restrictions in the City Centre; upgrade of bus fleets and stops; introduction of simplified ticketing and payment, application of a single brand: Demand Responsive Services for Taxis.</i>					CH1, CH2, CH3, CH4, L1, L2, L3, L4, L5, A1, A2, A3, M1, M3, S1, S2, S3, S4, S5, S6, H1, H2, H3, H4, H5, W1, W2, W3, W4, W5, W6, B1, B2, B3, B4, B5, B6, B7, M5, A4	M2, M4	P1, P2, P3		<i>Bus related measures will improve the status of SEOs relating to sustainable mobility and associated interactions with the surrounding population.</i>
<b>Regional / Inter-city / Commuter Bus &amp; Coach Network. Key Changes:</b> <i>Reliable coach/bus journeys; good access in and out of bus/coach terminal; interchange between local and regional transport.</i>					CH1, CH3, L1, L2, L4, L5, M3, B1, B2, B3, B4, B5, B7, S1, S2, S3, S4, S5, S6, H1, H2, H3, H4, H5, W1, W2, W3, W4, W5, M5, A4	CH2, CH4, L3, A1, A2, A3, M1, M2, M4, B6	P1, P2, P3		<i>Upgrading and enhancing the train station would contribute towards the attractiveness of public transport thereby improving the status of SEOs relating to sustainable mobility and associated interactions</i>
<b>Rail. Key Changes:</b> <i>Increase frequency of rail services; Interchange between regional and local public transport.</i>					L1, L2, L4, L5, CH1, CH3, M1, M3, M4, B1, B2, B3, B4, B5, B6, B7, S1, S2, S3, S4, S5, S6, W1, W2, W3, W4, W5, H1, H2, H3, H4, H5, M5	L3, A1, A2, A3, M2, CH4, CH2, A4	P1, P2, P3		<i>Increase frequency of rail services will facilitate intensification of use of public transport thereby improving the status of SEOs relating to sustainable mobility and associated interactions</i>
<b>Park &amp; Ride. Key Changes:</b> <i>Maximise destinations reachable by Park &amp; Ride services; Ensure that Park &amp; Ride is financially sustainable</i>			S1, S2, S3, S4, S5, W3, W4, W5,	M1, M3, S6 L1, L2, L5, M5, B1, B2, B3, B5, B7,	CH1, CH3, L4, W1, W2, H1, H2, H3, H4, H5, B4, B6	A1, A2, A3, M2, M4, CH2, CH4, L3, A4	P1, P2, P3		<i>Park and ride would facilitate increased use of public transport and achievement of objectives relating to sustainable mobility and associated interactions of Air Quality and Climate, Population and Human Health.</i>  <i>Arising from the construction and operation, park and ride has the potential to adversely impact Soils and Geology, surface and groundwater and biodiversity. Such conflicts can be mitigated by measure in the County and City Plan.</i>

CYCLING, WALKING AND PUBLIC REALM	Minus 3 - Potentially Very Significant Negative Impact	Minus 2 - Potentially Significant Negative Impact	Minus 1 - Potentially Not Significant Negative Impact	? - Potentially Uncertain Impact	Zero - Potentially Neutral or No relationship	Plus 1 - Potentially Not Significant Beneficial Impact	Plus 2 - Potentially Significant Beneficial Impact	Plus 3 - Potentially Very Significant Beneficial impact	Comments on Interactions
<b>Tourist Coach Parking Management.</b> <b>Key Changes:</b> Suitable and controlled drop off/pick up locations.					B1, B2, B3, B4, B5, B6, B7, A1, A2, A3, M1, M2, M3, M4, P1, P2, P3, S1, S2, S3, S4, S5, S6, H1, H2, H3, H4, H5, W1, W2, W3, W4, W5, CH1, CH2, CH3, CH4, L1, L2, L3, L4, L5, M5, A4,				A suitable and controlled drop off/pick up locations will not adversely impact any SEO's and will respond to the tourist demands on the City.
<b>Cycling.</b> <b>Key Changes:</b> To provide a primary 'trunk' cycle network which will provide a convenient and safe route for medium-distance radial commuter / leisure journeys; To provide a secondary cycle network which will provide a recognisable grid network for local journeys, and will be connected to the primary network for longer journeys; To increase options for cycling in and across the city centre			S3, S5, B1,B2	CH1, CH3, W5, S1, S4, S6, B7, B3, B4, B5, L2, L5	S2, S5, S6, W1, W2, W3, W4, L1, M1, M3, M5,	B6, CH2, CH4, L3, L4	M2, M4, P1,P2,P3, H3, H4, H5,	A1, A2, A3, H1,H2, A4	A 'trunk' Cycle Network and associated complementary measures specified will improve the status of SEOs relating to sustainable mobility and associated interactions with Human health, the surrounding population and Air Quality. Potential Adverse effects could occur in relation to the rollout of the Greenway where the positive effects of cycling could interact vulnerable soils and the disturbance of archaeological resources. Adverse impacts can be mitigated during the project-level Environmental Impact Assessment and Appropriate Assessment Stage.
<b>Supporting Measures for cycling.</b> <b>Key Changes:</b> Bike Share Scheme, Bicycle Parking, Permeability and Wayfinding			S3, S5, B1,B2	CH1, CH3, M1, M3, W5, S1, S4, S6, B6, B3, B4, B5	,M2, , B7, S2, W1, W2,W3, W4, L1, L2, L3, L4, L5, M5,	CH2, CH4, M4, A4, B6	A1, A2, A3, P1, P2, P3, H1, H2, H3, H4, H5		Supporting measures for cycling improve the status of SEO's relating to sustainable transport and its interactions with Air Quality, Human welfare and the surrounding population.
<b>Walking.</b> <b>Key Changes:</b> To provide improvements for pedestrians along city centre public transport corridors, To increase priority given to pedestrians over road traffic,				S5, B1, B2, B3, B4, B5, B6, B7, CH3, CH1	S1, S2, S3, S4, S6, W1, W2, W3, W4, W5, L1, M1, M3,	B6, CH2, CH4, L3, L4, M5	M2, M4, P1, P2, P3, A4	A1, A2, A3, H1, H2, H3, H4, H5	Implementation of these provisions to encourage walking will improve the status of SEOs relating to sustainable mobility and associated interactions with Air Quality, the population, human welfare and will reduce

<i>Increase legibility and wayfinding; increase the quality, comfort and safety of the pedestrian facilities</i>									<i>negative impacts arising from traffic on cultural heritage.</i>
<b>Supporting Measures for Walking.</b> <b>Key Measures:</b> <i>Revision of road junction layouts; permeable pedestrian environment; control of parking on footpaths; removal of unnecessary street clutter.</i>				B1, B2, B3, B4, B5, B6,	CH3, CH1, M1, M3, M5, S1, S2, S3, S4, S5, S6, W1, W2, W3, W4, W5, L1, L2, L3, L4, L5, B7,	CH2, CH4, B6, A4, M2, M4,	P1, P2, P3, H4, H5,	A1 ,A2, A3, H1, H2, H3,	<i>Implementation of these associated measures to address walking related issues will improve the status of SEOs relating to sustainable mobility and associated interactions with Air Quality, the population, human welfare and will reduce negative impacts arising from traffic on cultural heritage.</i>
<b>Public Realm - Cross City Link.</b> <b>Key Changes:</b> <i>A bus only Priority Route, exclusion of general traffic from Salmon Weir Bridge, local access and deliveries only on cross city link, clear legible corridor</i>			B1, B2	S5, W1,	CH1, CH2, CH4, L1, L2, L4, L5, B3, B4, B5, B6, B7, S1, S2, S3, S4, S5, S6, W2, W3, W4, W5, CH3	M3, B6, L3	A1, A2, A3, M1, M2, M4, P1, P2, P3, H1, H2, H3	H4, H5	<i>A bus only Priority Route will improve the status of SEOs relating to sustainable mobility and associated interactions with SEOs on Air Quality, Human Health and Population. Any road widening/improved road infrastructure/other works required would be minor and therefore not adversely impact any SEOs. The inclusion of a pedestrian bridge has the potential to adversely impact habitats and the River Corrib water and river walls. Such conflicts can be mitigated by measure in the County and City Plan.</i>
<b>Universal Design –</b> <b>Key Changes:</b> <i>To adopt an approach to design that is inclusive of all persons, in particular, those who face specific challenges on a day to day basis when utilising the various modes of transport to travel around the city.</i>				CH1, CH2, CH3, L1	B1, B2, B3, B4, B5, B6, B7, H2, H3, S1, S2, S3, S4, S5, S6, W1, W2, W3, W4, W5, A2, A4, , M1, M2, M3, M4, M5, L2, L3, L4, L5	A1, A3	P1,P2, H1, H4, H5		<i>A Universal Design will ensure transport services are accessible to people with reduced mobility. This will improve the status of SEOs relating to Human Beings and will have a neutral effect on other SEO's. However, impacts on Cultural Heritage are uncertain as access universal designs have potential to visually impact built archaeological or architectural monuments.</i>

COMPLEMENTARY MEASURES	Minus 3 - Potentially Very Significant Negative Impact	Minus 2 - Potentially Significant Negative Impact	Minus 1 - Potentially Not Significant Negative Impact	? - Potentially Uncertain Impact	Zero - Potentially Neutral or No relationship	Plus 1 - Potentially Not Significant Beneficial Impact	Plus 2 - Potentially Significant Beneficial Impact	Plus 3 - Potentially Very Significant Beneficial impact	Comments on Interactions
<b>Smarter Mobility:</b> <b>Key Changes;</b> <i>Introduction of intelligent transport services to increase efficiency safety, co-ordination across transport networks.</i>					M1, M3, L1, L2, L3, L4, L5, CH1, CH2, CH3, CH4, S1, S2, S3, S4, S5, S6, W1, W2, W3, W4, W5, B1, B2, B3, B4, B5, B7,	A1, A2, A3, M2, M3, M4, B6, P1, P2, P3, H1, H2	H3, H4, H5		<i>Intelligent Transport Services will assist in the improvement of SEO's on sustainable modes of transport and their interactions with Air Quality, Human Health and the population.</i>
<b>Travel to Places of Education.</b> <b>Key Changes;</b> <i>Behavioural change programmes, strategic improvements of bus, cycle and walking networks, Permeability improvements targeted at walking and cycling modes, improving accessibility to the bus network, Promotion of school travel plans</i>					CH1, CH2, CH3, CH4, L1, L2, L3, L4, L5, M1, M2, M4, S1, S2, S3, S4, S5, S6, W1, W2, W3, W4, W5, B1, B2, B3, B4, B5, B7,	A1, A2, A3, M2, B6, P1, P2, P3,	H3, H4, H5	H1, H2	<i>The implementation of Behavioural change programmes, strategic improvements of bus, cycle and walking networks would primarily assist in improving SEO's relating to sustainable mobility and associated interactions with SEO's relating to Air Quality and the population.</i>
<b>Land-use Integration.</b> <b>Key Changes:</b> <i>Consolidation of settlement with proposed core public transport corridors.</i>				CH1, CH3, CH4, S2, S4, M3, W1, W2, W3, W4, W5	CH2, A2, M2, M4, S1, S2, S6, B1, B2, B3, B4, B5, B7, L4,	S4, S5, B6, H1, H2, P3, A1, A3	P1, P2, S3, M1, L3	H3, H4, H5,	<i>The implementation of the Strategy will facilitate a more efficient use of land within the strategy Study Area and will improve the accessibility of central areas, which will potentially lead to the greater consolidation of trip intensive developments such as employment and retail into locations served by public transport. Improving Land Use Integration would primarily improve SEO's on sustainable mobility and associated interactions with SEO's relating to Air Quality and the population.</i>
<b>Behavioural Change.</b> <b>Key Changes:</b> <i>Making people aware of the range of travel choices available for the variety of trips which they make on a daily basis and encouraging the use of more sustainable travel choices</i>					CH1, CH2, CH3, CH4, M1, M3, M4, L3, S1, S2, S3, S4, S5, S6, W1, W2, W3, W4, W5, B1, B2, B3, B4, B5, B7, L1, L2, L4, L5	A1, A2, A3, M2, B6, P1, P2, P3.	H3, H4, H5,	H1, H2	<i>The implementation of Behavioural Change to highlight the range of travel choices available would primarily assist in improving SEO's relating to sustainable mobility and associated interactions with SEO's relating to Air Quality and the population.</i>

## 9.0 Mitigation Measures

### 9.1 Introduction

This section outlines the mitigation measures identified, as necessary, to address the potential negative impacts arising from the implementation of the GTS. While every effort will be taken to ensure that the impact of the GTS on the environment is neutral to positive, particular unavoidable negative impacts may occur as a result of its implementation. The Environmental Report details mitigation measures to reduce or eliminate identified negative impacts.

Similarly, monitoring of the GTS, in accordance with the Planning and Development Act, 2000, as amended, will incorporate proposals to monitor various environmental receptors. A schedule of monitoring and reporting is set out in Table 9.1 in order to ensure that any unforeseen negative impact is identified at the earliest opportunity and subsequently appropriate mitigation measures are put in place to eliminate or at a minimum limit the level of impact to an acceptable degree. Environmental Indicators, as prescribed in the EPA publication “Ireland’s Environment: An Assessment 2012” are provided where relevant to this Strategy and presented as a yardstick against which the success of the GTS can be monitored.

In general terms, all proposals for development will be required to have due regard to the environmental considerations outlined in the Galway City Development Plan 2011-2017 (and following its adoption the Draft Galway City Development Plan 2017-2023, which is currently at Draft Plan stage), and the Galway County Development Plan 2015-2021.

The measures set out in the Galway Transport Strategy which run contrary to the objectives and policies contained within the Development Plans will not normally be permitted, and if permitted, not without the detailing of appropriate site and development specific mitigation measures. In addition, particular measures will in themselves be subject to further project specific environmental assessment by means of Environmental Impact Assessment (EIA) and Appropriate Assessment (AA).

At the project-level Environmental Impact Assessment and Habitat Directive Assessment stage, detailed mitigation measures for all projects will be developed. For example, the proposed N6 GCRR and the greenways will identify a suite of measures aimed at reducing the adverse impacts of that project on environmental topics such as Noise, Archaeology and Cultural Heritage, Architectural Heritage and Landscape & Visual etc.

### 9.2 Mitigation Measures

Given the GTS study area’s environmental designations, landscape and cultural heritage sensitivities, there were a number of uncertain and potential negative impacts identified as a result of interactions between the GTS policies and objectives and the Strategic Environmental Objectives. In most instances potential uncertainties or negative impacts are mitigated against by the protective policies already contained within the Galway City Development Plan 2011-2017 (and Draft Galway City Development Plan 2017-2023), and the Galway County Development Plan 2015-2021 which have an overarching role in ensuring the protection of designated European Sites. These environmental protection policies will serve, in many cases, to safeguard against the GTS resulting in adverse effects on the integrity of any European Sites. The NIS for the AA process has also identified mitigation measures to safeguard against potentially adverse effects.

A detailed assessment of the Strategy's provisions/measures was undertaken and the proposed mitigation and protection policies are presented in Table 9.1 of this document. To express the origination of these mitigation policies, policies and objectives from the Galway City Development Plan 2011-2017 (**GCiDP**) are highlighted in **BLUE**, and can be viewed in Appendix III of this report, policies and objectives from the Draft Galway City Development Plan 2017-2023 are highlighted in **BLACK** while policies and objectives from the Galway County Development Plan 2015-2021 (**GCoDP**) are highlighted in **RED** and can be viewed in Appendix IV of this report. Mitigation measures identified in the NIS are highlighted in **GREY** and can be viewed in Appendix V of this report.



Table 9.1 Mitigation Measures

Specific Measures/Components	Minus 3 - Potentially Very Significant Negative Impact	Minus 2 - Potentially Significant Negative Impact	Minus 1 - Potentially Not Significant Negative Impact	? - Potentially Uncertain Impact	Mitigation
<b>TRAFFIC NETWORK</b>					
<b>Cross-City Link (Public Transport Corridor) Key Changes:</b> <i>Central corridor traversing the core city centre area which will be restricted to use by public transport vehicles, pedestrians, cyclists and local residential motorised access only.</i>			B1, B2	M3, W1, B3	<p>Potential negative impacts on SEO B1 and SEO B2 (Biodiversity) will be protected by <a href="#">GCiDP Policy 4.4 of the CDP (2011- 2017) on Natural Heritage and Biodiversity</a>. Such provisions have also been incorporated into the <b>Draft Galway City Development Plan (CDP) 2017-2023</b> under <b>Draft GCiDP Policy 4.2 on Protected Spaces: Sites for European, National and Local Ecological Importance</b>.</p> <p>The NIS of the GTS further outlines a number of mitigation measures in relation to habitat loss affecting European Sites from the Public Transport Network, Non-greenway Cycle Network and Pedestrian Network (proposed bridge structures). Therefore, negative impacts on SEO B1 and SEO B2 are further mitigated in <b>Box 1b, Appendix V</b> of this Report</p> <p>Mitigation measures relating to habitat degradation, through construction related water quality impacts, affecting European Sites and SEO B3 are outlined in <b>Box 4, Appendix V</b> of this Report.</p> <p>Mitigation measures relating to habitat degradation through shading impacts affecting European Sites and SEO B1 are outlined in <b>Box 6, Appendix V</b> of this Report and mitigation measures relating to any barrier effects affecting European Sites, namely Lough Corrib SAC and Galway Bay Complex SAC are outlined in <b>Box 10, Appendix V</b> of this Report</p> <p>Mitigation measures relating to mortality risk affecting European Sites are outlined in <b>Box 11, Appendix V</b> of this Report</p> <p>To protect against uncertain impacts on SEO W1 (Water), <a href="#">GCiDP Policy 4.5 on Coastal Areas, Canal and Waterways</a> of the 2011 CDP supports the recommendations of the Western River Basin District Management Plan (2009-2015) in relation to the protection of water quality of surface waters, ground waters and coastal rivers and provides for the protection of the River Corrib and <a href="#">GCiDP Policy 8.12 on Water Supply and Quality</a>. This has been incorporated into <b>Draft GCiDP Policy 4.3</b> of the <b>Draft Galway City Development Plan 2017-2023</b>. <b>GCoDP Objective WS 2 – EU Policies and Directives</b> also protects against impacts on SEO W1.</p> <p>The NIS of the GTS further outlines general mitigation measures for (SEO B3 and SEO W1) relating to potential hydrogeological impacts affecting European Sites (excluding the N6 GCRR), refer to in <b>Box 2a, Appendix V</b> of this Report</p> <p>Uncertain impacts on SEO M3 will be protected by <a href="#">GCiDP Policy 9.2</a> on the City Centre.</p>

Specific Measures/Components	Minus 3 - Potentially Very Significant Negative Impact	Minus 2 - Potentially Significant Negative Impact	Minus 1 - Potentially Not Significant Negative Impact	? - Potentially Uncertain Impact	Mitigation
<b>Road and Street Network including N6 Galway City Ring Road. Key Changes:</b> <i>Creation of an orbital route, tunnelling and excavation at Lackagh Quarry and upgrades of existing N6 junctions.</i>	A1, A2, A3, M1, M2, H1, H2, H3, S1, S2, S4, W5, A4, M5	L1, L2, CH2, CH3, CH4, B1, B2, B3, B4, B6, B7, , W1, W3, W5, H1, H2	M3, B5, S6	H5, W4, P1, P2, P3, CH1, L4, L5	<p>Potential negative impacts on SEO B1, SEO B2 and SEO B8 will be protected by <b>GCiDP Policy 4.4 on Natural Heritage and Biodiversity</b>. Such provisions have also been incorporated into the <b>Draft Galway City Development Plan (CDP) 2017-2023</b> under <b>Draft GCiDP Policy 4.2 on Protected Spaces: Sites for European, National and Local Ecological Importance</b>. Negative impacts on SEO B1, SEO B2 will also be protected by <b>GCoDP Objective DS 6 on the Natura 2000 Network and Habitats Directive Assessment</b>.</p> <p>Negative impacts on SEO B3 will be protected by <b>GCoDP Objective DS 6 on the Natura 2000 Network and Habitats Directive Assessment and by GCoDP Policy NHB 4 on Water Resources</b>.</p> <p>Negative impacts on SEO B4 will be protected by <b>GCoDP Objective DS 6 on the Natura 2000 Network and Habitats Directive Assessment and by GCoDP Objective NHB 8 on Coastal Zones</b>.</p> <p>Negative impact on SEO B5 will be protected by <b>GCoDP Objective DS 6 on the Natura 2000 Network and Habitats Directive Assessment and by GCoDP Policy NHB 7 on Invasive Species</b>.</p> <p>The NIS of the Draft GTS further outlines a number of mitigation measures relating to habitat degradation from non-native invasive species affecting European Sites and SEO B1 and SEO B2. <b>Refer to Box 8, Appendix V</b> of this Report</p> <p>Mitigation measures relating to habitat degradation, through construction related water quality impacts, affecting European Sites and SEO B3 are outlined in <b>Box 4, Appendix V</b> of this Report.</p> <p>Mitigation measures relating to mortality risk affecting European Sites and SEO B2 are outlined in <b>Box 11, Appendix V</b> of this Report.</p> <p>Negative Impacts SEO B6 will be protected by <b>GCoDP Objective DS 6 on the Natura 2000 Network and Habitats Directive Assessment</b>, <b>GCiDP Policy CC6 on adapting Infrastructure to Climate Change</b>, <b>GCiDP Policy CC7 on Local Authority Action regarding Climate Change</b> and <b>GCoDP Objective NHB 2 on Biodiversity and Ecological Networks and Objective ER 3 on a Low Carbon County</b>.</p> <p>SEO B7 will be protected by <b>GCoDP Objective EDT 1 on Strategic Economic Corridors and Policy NHB 3 on Green Infrastructure</b>.</p> <p>Mitigation measures relating to habitat loss affecting European Sites arising from the N6 GCRR are outlined in <b>Box 1c, Appendix V</b> of this Report.</p> <p>To protect against negative impacts on SEO A1, SEO A2 and SEO A3 (Air Quality), <b>GCiDP Policy 8.7 on Air Quality</b> and <b>GCoDP Objective CC 6 on Air Quality</b> promotes and supports initiatives to reduce air pollution, by increasing the use of public transport. Negative impacts on SEO A4 will be protected by <b>GCoDP Objective TI 12 on Noise</b>.</p> <p>Mitigation measures relating to European Sites from air quality impacts associated with the GTS affecting SEO A1, SEO A2, SEO A3, are outlined in <b>Box 7, Appendix V</b> of this report.</p>

					<p>To protect against negative impacts on SEO CH1 to SEO CH4, <b>GCiDP Policy 7.2 of the CDP on built heritage</b> provides a number of measures to protect and enhance structures listed in the Record of Protected Structure. Potential negative impacts on SEO CH1 - CH4 will also be mitigated by <b>GCiDP Policy 7.3</b> of the 2011 Development Plan. Negative Impacts on SEO CH1 is also protected through <b>GCoDP Policy GH 1 and Policy GH 2</b>, Negative impacts on SEO CH, SEO CH3 and SEO CH4 will be protected by <b>GCoDP Objective AH2 and AH 3 on Architectural Conservation Areas and Objective ARC 2, ARC Objective 3 and ARC Objective 4 on Development Management</b>.</p> <p>Potential negative and uncertain impacts on SEO W1, SEO W3, SEO W4 and SEO W5 relating to water will be protected by <b>GCiDP Policy 4.5 on Coastal Areas, Canal and Waterways</b>. This has been incorporated into Draft <b>GCiDP Policy 4.3</b> of the <b>Draft Galway Development Plan</b>. Uncertain and potentially negative impacts on SEO W1, SEO W3, SEO W4 to SEO W5 will also be protected by <b>GCiDP Policy 8.12 Water Supply and Water Quality, GCiDP Policy 8.5 on Flood Risk and Policy 8.15 Specific Objectives on Flood Risk Management</b>. Negative impacts will also be protected by <b>GCoDP Policy FL 4 on Principles of the Flood Risk Management Guidelines, Policy FL 5 on SFRA of Lower Tier Plans and Objective FL1 on Flood Risk Management and Assessment</b>.</p> <p>Specific mitigation measures relating to the proposed N6 GCRR and potential hydrogeological impacts affecting European Sites are outlined in <b>Box 2b, Appendix V</b> of this report.</p> <p>The NIS of the GTS further outlines a number of mitigation measures relating to habitat degradation through operational related water quality impacts affecting European Sites from new road developments. Refer to <b>Box 5B, Appendix V</b> of this Report</p> <p>Potential uncertain impacts on SEO L1, SEO L4 will be protected by <b>GCiDP Policy 4.8 on Views of Special Amenity and Interest and Policy on Built Heritage</b>. Potential negative impacts on SEO L2 (Landscape) will be protected by <b>GCiDP Policy 4.4 on Natural Heritage and Biodiversity and Policy 4.8 on View of Special Amenity</b>.</p> <p>The uncertain effects on SEO P1 and SEO P2 (the population) will be protected by <b>GCiDP Policy 3.6 Specific Objectives</b> of the Plan and further protected by <b>GCiCP Policy 3.2 on Landuse and Transportation</b> and <b>Policy 1.3 on a Development Plan Strategy</b>. SEO P3 will be protected by <b>GCoDP Objective SI1 on Recognised Special Needs</b>.</p> <p>Uncertain and potentially significant negative effects on SEO H1, SEO, H2, SEO H5 (Human Beings) will be protected by <b>GCiDP Policy 3.6 on Cycling and Pedestrian Objectives</b>.</p> <p>Potential negative impacts on SEO S1, SEO S2, SEO S4 and SEO S6 will be protected by <b>GCiDP Policy 8.5 on Flood Risk and GCiDP Policy 4.9 Agricultural lands</b>. Negative impacts will also be protected by <b>GCoDP Policy NHB 5 – Geological and Geo-Morphological Systems</b>.</p> <p>Potential negative impacts on SEO M3 will be protected by <b>GCiDP 4.9 on Agricultural lands</b> and <b>GCoDP Objective SI3 on Proofing of Traffic Management Measures</b>.</p> <p>Potential negative impacts on SEO M1 and SEO M2 will be protected by <b>GCiDP Policy TI 2 on Development of an Integrated &amp; Sustainable transport System</b> and by <b>GCoDP DS 3 on Integrated Land use and Sustainable Transportation</b>. Negative impacts on SEO M5 will be protected by <b>GCiDP Policy 8.9 on Waste Management Policy</b>.</p> <p><b>Note:</b> Furthermore, at the project-level Environmental Impact Assessment and Habitat Directive Assessment stage, detailed mitigation measures for the N6 Galway City Ring Road Project will be developed. This will identify a suite of measures aimed at reducing adverse impacts that scheme on environmental topics such as Archaeology and Cultural Heritage, Architectural Heritage and Landscape &amp; Visual.</p>
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	Minus 3 - Potentially Very Significant Negative Impact	Minus 2 - Potentially Significant Negative Impact	Minus 1 - Potentially Not Significant Negative Impact	? - Potentially Uncertain Impact	
<b>LOCAL PUBLIC TRANSPORT</b>					<b>Mitigation</b>
<b>Public Transport Service for the Galway City Region.</b> <b>Key Changes:</b> <i>Maximise patronage attraction by providing a high-frequency core public transport network; Provide city-wide network coverage /connectivity to all parts of the city; Provide guaranteed and reliable journey time.</i>				M3, A4	<p>Potential negative impacts on SEO M3 (Public Assets) will be protected by <b>GCiDP 9.2 on the City Centre</b> and <b>GCoDP Objective SI3 on Proofing of Traffic Management</b> Infrastructure.</p> <p>Uncertain impacts on SEO A4 will be protected by <b>GCiDP Policy 8.7 on Air Quality &amp; Noise</b> and also by <b>GCoDP on Objective TI12 on Noise.</b></p>
<b>High Frequency Bus-Based Public Transport Network (Priority Infrastructure Provision)</b> <b>Key Changes:</b> <i>A cross-city bus network based on linking the residential origins to the key destination locations.</i>				M3, A4	<p>Potential negative impacts on SEO M3 (Public Assets) will be protected by <b>GCiDP 9.2 on the City Centre</b> and <b>GCoDP Objective SI 3 on Proofing of Traffic Management</b> Infrastructure.</p> <p>Uncertain impacts on SEO A4 will be protected by <b>GCiDP Policy 8.7 on Air Quality &amp; Noise</b> and also by <b>GCoDP Objective TI12 on Noise.</b></p>
<b>REGIONAL PUBLIC TRANSPORT</b>	Minus 3 - Potentially Very Significant Negative Impact	Minus 2 - Potentially Significant Negative Impact	Minus 1 - Potentially Not Significant Negative Impact	? – Potentially Uncertain Impact	<b>Mitigation</b>
<b>Park &amp; Ride. Key Changes:</b> <i>Maximise destinations reachable by Park &amp; Ride services; Ensure that Park &amp; Ride is financially sustainable</i>			S1, S2, S3, S4, S5, W3, W4, W5,	M1,M3, S6 L1, L2, L5, M5, B1, B2, B3, B5, B6, B7,	<p>Potential negative impacts on SEO S1, SEO S2, SEO S3, SEO S4, SEO S5 and uncertain impacts on SEO S6 will be protected by <b>GCiDP Policy 8.5 on Flood Risk and GCiDP Policy 4.9 Agricultural lands.</b></p> <p>Potential negative impacts on SEO B1, SEO B2 (Biodiversity) will be protected by <b>GCiDP Policy 4.4 of the CDP (2011- 2017) on Natural Heritage and Biodiversity.</b> Such provisions have also been incorporated into the <b>Draft Galway City Development Plan (CDP) 2017-2023</b> under <b>GCiDP Policy 4.2 on Protected Spaces: Sites for European, National and Local Ecological Importance.</b></p> <p>Negative impact on SEO B5 will be protected by <b>GCoDP Objective DS 6 on the Natura 2000 Network and Habitats Directive Assessment and by GCoDP Policy NHB 7 and Objective NHB 5 on Invasive Species.</b></p> <p>The NIS of the GTS further outlines a number of mitigation measures relating to SEO B3 and habitat degradation through operational related water quality impacts affecting European Sites from new road developments. <b>Refer to Box 5B, Appendix V</b> of this Report</p>

					<p>Specific mitigation measures relating to habitat degradation from non-native invasive species affecting European Sites are outlined in <b>Box 8, Appendix V</b> of this report.</p> <p>Negative Impacts SEO B6 will be protected by <b>GCoDP Objective DS 6 on the Natura 2000 Network and Habitats Directive Assessment</b>, <b>GCiDP Policy CC6 on adapting Infrastructure to Climate Change</b>, <b>GCiDP Policy CC7 on Local Authority Action regarding Climate Change</b> and <b>GCoDP Objective NHB 2 on Biodiversity and Ecological Networks and Objective ER 3 on a Low Carbon County</b>.</p> <p>SEO B7 will be protected by <b>GCoDP Objective EDT 1 on Strategic Economic Corridors and Policy NHB 3 on Green Infrastructure</b></p> <p>Potential negative impacts on SEO W3, W4 &amp; SEO W5 will be protected by <b>GCiDP Policy 8.5 on Flood Risk and Policy 8.15 Specific Objectives on Flood Risk Management</b>.</p> <p>Mitigation measures from the NIS relating to SEO B3 habitat degradation, through construction related water quality impacts, affecting European Sites are outlined in <b>Box 4, Appendix V</b> of this report.</p> <p>Potential negative impacts on SEO L1, L2 and L5 will be protected with <b>GCiDP Policy 4.8 on Views of Special Amenities and Interest and Policy 7.4 on Urban Design, and Policy LCM 1 on Preservation of Landscape Character</b></p> <p>Uncertain impacts on SEO M3 will be protected by <b>Objective SI3 on Proofing of Traffic Management Infrastructure</b>. Uncertain impacts on SEO M1 can be protected by <b>GCoDP DS 3 on Integrated Land use and Sustainable Transportation</b> and <b>GCiDP Policy 3.2 on Land Use and Transportation</b>.</p> <p>Uncertain impacts on SEO M5 will be protected by <b>GCiDP Policy 8.9 on Waste Management Policy</b>.</p>
CYCLING, WALKING AND PUBLIC REALM	Potentially Very Significant Negative Impact	Potentially Significant Negative Impact	Potentially Not Significant Negative Impact	Potentially Uncertain Impact	Mitigation
<p><b>Cycling. Key Changes:</b> To provide a primary ‘trunk’ cycle network which will provide a convenient and safe route for medium-distance radial commuter / leisure journeys; To provide a secondary cycle network which will provide a recognisable grid network for local journeys, and will be connected to the primary network for longer journeys; To increase options for cycling in and across the city centre. Creation of two Greenways providing connectivity for cyclists from nearby towns and villages; one along the</p>			S3, S5, B1,B2	CH1, CH3, M1, M3, W5, S1, S4, S6, B6, B3, B4, B5	<p>Potential negative impacts on SEO S3, SEO S5 and uncertain impacts on SEO S1, SEO S4, SEO S6 (Soils and Geology) will be protected by <b>GCiDP Policy 4.4 on Natural heritage and Biodiversity, Policy 4.5 in Coastal Areas, Canals and Waterways</b> and by <b>GCoDP Objective NHB 2 – Biodiversity and Ecological Networks</b>. Potential negative impacts on SEO S1 and SEO S2 will also be protected by <b>GCoDP Policy NHB 5 on Geological and Geo-Morphological Systems</b>.</p> <p>Potential negative impacts on SEO B1, SEO B2 (Biodiversity and Habitat protection) and uncertain impacts on SEO B3, SEO B4, SEO B5, SEO B6 will be protected by <b>GCiDP Policy 4.3 on Greenways and Public Rights of Way and GCiDP Policy 4.4 of the CDP (2011-2017) on Natural Heritage and Biodiversity</b> and incorporated into the <b>Draft Galway City Development Plan 2017-2023 under Policy 4.2 on Protected Spaces: Sites for European, National and Local Ecological Importance</b>.</p> <p>The NIS of the GTS study area further outlines a number of mitigation measures in <b>Box 1a, Appendix V</b> of this report to protect against potential habitat loss thereby migrating SEO B2 arising from the Greenways.</p> <p>Potential negative impacts on SEO W5 relating to water objective will be protected by <b>Policy 4.5 on Coastal Areas, Canal and Waterways</b> of the 2011 CDP supports the recommendations of the Western River Basin District Management Plan (2009-2015) in relation to the protection of water quality of surface waters, ground waters and coastal rivers and has been incorporated into <b>GCiDP Policy 4.3 of the Draft CDP 2017-2023</b>.</p>



coast from An Spidéal to Oranmore, passing through Galway City; and one along the western bank of the River Corrib from Galway City to Oughterard, via Maigh Cuilinn.					<p>Uncertain impacts on SEO CH1 and SEO CH3 will be protected by <a href="#">Policy GCiDP Policy 7.3 Archaeology and GCiDP Policy 4.4 on Natural Heritage and Biodiversity</a>.</p> <p>Uncertain impacts on SEO M1 and SEO M3 will be protected <a href="#">GCiDP Policy TI 2 on Development of an Integrated &amp; Sustainable transport System</a> and by <a href="#">GCoDP DS 3 on Integrated Land use and Sustainable Transportation</a>.</p> <p><b>Note:</b> Furthermore, at the project-level Environmental Impact Assessment and Habitat Directive Assessment stage for the Greenway, detailed mitigation measures for the N6 Galway City Ring Road Project will be developed. This will identify a suite of measures aimed at reducing adverse impacts that scheme on environmental topics such as Archaeology and Cultural Heritage, Architectural Heritage and Landscape &amp; Visual.</p>
<p><b>Walking.</b> <b>Key Changes:</b> <i>To provide improvements for pedestrians along city centre public transport corridors, To increase priority given to pedestrians over road traffic, Increase legibility and wayfinding; increase the quality, comfort and safety of the pedestrian facilities.</i></p> <p><i>Rollout of a greenway network for leisure walking.</i></p>				S5, B1, B2, B3, B4, B5, B6, B7, CH3, CH1	<p>Uncertain impacts relating to the greenway network on SEO B1, SEO B2 will be protected by <a href="#">GCiDP Policy 4.3 on Greenways and Public Rights of Way and GCiDP Policy 4.4 on Natural Heritage and Biodiversity</a>. Such provisions have also been incorporated into the <b>Draft Galway City Development Plan (CDP) 2017-2023</b> under <b>Policy 4.2 on Protected Spaces: Sites for European, National and Local Ecological Importance</b>. Negative impacts on SEO B1, SEO B2 will also be protected by <a href="#">GCoDP Objective DS 6 on the Natura 2000 Network and Habitats Directive Assessment</a>.</p> <p>Uncertain impacts on SEO B3 will be further protected by <a href="#">GCoDP Objective DS 6 on the Natura 2000 Network and Habitats Directive Assessment</a> and by <a href="#">GCoDP Policy NHB 4 on Water Resources</a>.</p> <p>Uncertain impacts on SEO B4 will be further protected by <a href="#">GCoDP Objective DS 6 on the Natura 2000 Network and Habitats Directive Assessment</a> and by <a href="#">GCoDP Objective NHB 8 on Coastal Zones</a>.</p> <p>Uncertain impact on SEO B5 will be further protected by <a href="#">GCoDP Objective DS 6 on the Natura 2000 Network and Habitats Directive Assessment</a> and by <a href="#">GCoDP Policy NHB 7 and Objective NHB 5 on Invasive Species</a>. Further mitigation on Invasive Species are outlined in the NIS relating to habitat degradation from non-native invasive species affecting European sites are outlined in <b>Box 8, Appendix V</b> of this Report.</p> <p>Uncertain Impacts SEO B6 will be further protected by <a href="#">GCoDP Objective DS 6 on the Natura 2000 Network and Habitats Directive Assessment</a>, <a href="#">GCiDP Policy CC6 on adapting Infrastructure to Climate Change</a>, <a href="#">GCiDP Policy CC7 on Local Authority Action regarding Climate Change</a> and <a href="#">GCoDP Objective NHB 2 on Biodiversity and Ecological Networks and Objective ER 3 on a Low Carbon County</a>.</p> <p>SEO B7 will be protected by <a href="#">GCoDP Objective EDT 1 on Strategic Economic Corridors</a> and <a href="#">Policy NHB 3 on Green Infrastructure</a></p> <p>Uncertain impacts of SEO CH1 and SEO CH2 will be protected by <a href="#">Policy GCiDP Policy 7.3 Archaeology and GCiDP Policy 4.4 on Natural Heritage and Biodiversity</a>.</p> <p>Furthermore, at the project-level Environmental Impact Assessment and Habitat Directive Assessment stage for the Greenway, detailed mitigation measures for the N6 Galway City Ring Road Project will be developed. This will identify a suite of measures aimed at reducing adverse impacts that scheme on environmental topics such as Archaeology and Cultural Heritage, Architectural Heritage and Landscape &amp; Visual.</p>



<b>Supporting Measures for Walking. Key Measures:</b> <i>Revision of road junction layouts; permeable pedestrian environment; control of parking on footpaths; removal of unnecessary street clutter.</i>				B1,B2,B3,B4,B5,B6,	<p>Uncertain impacts relating to the Greenway on SEO B1, SEO B2 and SEO B8 will be protected by <a href="#">GCiDP Policy 4.4 on Natural Heritage and Biodiversity</a>. Such provisions have also been incorporated into the <b>Draft Galway City Development Plan (CDP) 2017-2023</b> under <b>Policy 4.2 on Protected Spaces: Sites for European, National and Local Ecological Importance</b>. Negative impacts on SEO B1, SEO B2 will also be protected by <b>GCoDP Objective DS 6 on the Natura 2000 Network and Habitats Directive Assessment</b>.</p> <p>Uncertain impacts on SEO B3 will be further protected by <b>GCoDP Objective DS 6</b> on the <b>Natura 2000 Network and Habitats Directive Assessment</b> and by <b>GCoDP Policy NHB 4 on Water Resources</b>.</p> <p>Uncertain impacts on SEO B4 will be further protected by <b>GCoDP Objective DS 6 on the Natura 2000 Network and Habitats Directive Assessment</b> and by <b>GCoDP Objective NHB 8 on Coastal Zones</b>.</p> <p>Uncertain impact on SEO B5 will be further protected by <b>GCoDP Objective DS 6 on the Natura 2000 Network and Habitats Directive Assessment</b> and by <b>GCoDP Policy NHB 7 and Objective NHB 5 on Invasive Species</b>. Further mitigation on Invasive Species are outlined in the NIS relating to habitat degradation from non-native invasive species affecting European sites are outlined in <b>Box 8, Appendix V</b> of this Report.</p> <p>Uncertain Impacts SEO B6 will be further protected by <b>GCoDP Objective DS 6 on the Natura 2000 Network and Habitats Directive Assessment</b>, <b>GCiDP Policy CC6 on adapting Infrastructure to Climate Change</b>, <b>GCiDP Policy CC7 on Local Authority Action regarding Climate Change</b> and <b>GCoDP Objective NHB 2 on Biodiversity and Ecological Networks and Objective ER 3 on a Low Carbon County</b>.</p>
<b>Universal Design – Key Changes:</b> <i>To adopt an approach to design that is inclusive of all persons, in particular, those who face specific challenges on a day to day basis when utilising the various modes of transport to travel around the city.</i>				CH1, CH2, CH3, L1	<p>Uncertain Impacts relating to SEO CH1, SEO CH2, SEO CH3 and SEO L1 will be protected by <a href="#">Policy GCiDP Policy 7.3 Archaeology and Policy 7.4 on Urban Design</a>.</p>
<b>Public Realm - Cross City Link.</b> <b>Key Changes:</b> <i>A bus only Priority Route, exclusion of general traffic from Salmon Weir Bridge, local access and deliveries only on cross city link, clear legible corridor</i>			B1, B2	S5, W1	<p>Potential negative impacts on SEO B1, SEO B2 (Biodiversity) and SEO B8 will be protected by <a href="#">GCiDP Policy 4.4 of the CDP (2011-2017) on Natural Heritage and Biodiversity</a> and incorporated into the <b>Draft Galway City Development Plan (CDP) 2017-2023</b> under <b>GCiDP Policy 4.2 on Protected Spaces: Sites for European, National and Local Ecological Importance</b>.</p> <p>Uncertain impacts relating to SEO S5 will be protected by <a href="#">GCiDP Policy 8.9 on Waste Management Policy</a> and <b>GCoDP Policy EQ1 on Environmental Management procedures and Policy EQ2 on Adequate supply of Aggregate Resources</b>.</p> <p>Uncertain impacts relating to SEO W1 will be protected by <a href="#">GCiDP Policy 8.12 Water Supply and Water Quality</a>. The NIS of the GTS further outlines mitigation measures (for SEO B3) relating to the proposed N6 GCRR and potential hydrogeological impacts affecting European Site in <b>Box 2a, Appendix V</b> of this Report.</p> <p>Mitigation measures relating to habitat degradation (SEO B2), through construction related water quality impacts, affecting European Sites are outlined in <b>Box 4, Appendix V</b> of this Report.</p> <p>Uncertain impacts relating to SEO S5 will be protected by <a href="#">GCiDP Policy 8.9 on Waste Management Policy</a> and <b>GCoDP Policy EQ1 on Environmental Management procedures and Policy EQ2 on Adequate supply of Aggregate Resources</b>.</p>

<p><b>Land-use Integration.</b> <b>Key Changes:</b> <i>Consolidation of Settlement with proposed core public transport corridors.</i></p>				<p>CH1, CH3, CH4, S2, S4, M3, W1, W2, W3, W4, W5</p> <p>Potential uncertain impacts on SEO CH1, SEO CH3, SEO CH4 (Cultural Heritage) will be protected by <a href="#">GCiDP Policy 6.8 on Arts and Cultural Heritage</a> and <a href="#">GCiDP Policy 7.2 on Built Heritage</a> and <a href="#">GCiDP Policy 7.3 on Archaeology</a>. Potential uncertain impacts on SEO W1 to SEO W5 will be protected by <a href="#">GCiDP Policy 8.12 Water Supply and Water Quality</a>, <a href="#">GCiDP Policy 8.5 on Flood Risk and Policy 8.15 Specific Objectives on Flood Risk Management</a> and <a href="#">GCiDP Policy 4.5 on Coastal Areas, Canal and Waterways</a> Potential uncertain impacts on SEO M3 will be protected by <a href="#">GCiDP Policy 2.3, 2.4 on Outer and Establish Suburbs</a>.</p> <p>Uncertain impacts SEO S2 and SEO S4 will also be protected by <b>GCoDP Policy NHB 5 on Geological and Geo-Morphological Systems</b>.</p> <p>General mitigation measures relating to the potential hydrogeological impacts affecting European sites (SEO B3 and SEO W1) are outlined in <b>Box 2a, Appendix V</b> of this Report.</p> <p>The NIS of the GTS further outlines further mitigation measures relating to habitat degradation, through construction related water quality impacts, affecting European Sites are outlined in <b>Box 4, Appendix V</b> of this report</p>
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## 10.0 Galway Transport Strategy Monitoring Programme

### 10.1 Introduction

Monitoring of the Strategy and its implications on the environment is paramount to ensure that the environment is not adversely affected through the implementation of the Strategy. Under Article 10 of the SEA Directive, monitoring must be carried out of the significant environmental effects directly related to the implementation of the Plan *“in order to, inter alia, identify at an early stage unforeseen adverse effects and to be able to undertake appropriate remedial action.”* The SEA Guidelines state that monitoring should concentrate on likely significant environmental effects, which have been identified in the Environmental Report, and measures identified as necessary to prevent, reduce and offset any significant adverse effects.

### 10.2 Monitoring Indicators

The Galway Transport Strategy is a non-statutory document, however it is proposed that its aims, objectives and strategic measures will be given effect through provisions incorporated within the relevant development plans: that is by variation of Galway County Development Plan 2015 – 2021; by amendment of Bearna Local Area Plan 2007-2017, as well as within the Draft Galway City Development Plan 2017-2023. Therefore, SEA monitoring of the environmental effects of implementation of the GTS is addressed both under the provisions of this Environmental Report and the Environmental Reports prepared for the statutory development plans.

Base monitoring is proposed on a series of indicators which measure changes in the environment, especially changes which are critical in terms of environmental quality, for example water or air pollution levels. The indicators aim to simplify complex interrelationships and provide information about environmental issues which is easy to understand. A list of environmental indicators is provided in Table 10.1. The indicators are based on the Strategic Environmental Objectives presented in Chapter 6 and have been derived from knowledge of the existing environmental issues within the GTS study area and also from legislation, guidelines and higher level Plans.

Given the environment is an evolving and multi-focused environment, it is considered that a monitoring report on the implementation of the GTS is considered important for the on-going and future implementation of the Strategy. As noted above it is also considered appropriate that the monitoring programme for the implementation GTS is integrated with the monitoring programme for the statutory developments for Galway City, County and for Bearna. The monitoring report will include the key findings of the environmental monitoring programme as outlined in this chapter of the Environmental Report.

It is proposed to use a Geographical Information System (GIS) based monitoring system to monitor and assess the implementation of the Strategy. This GIS based system will attempt to overcome any limitations in spatial analysis, to achieve an improved and better informed decision-making process, and provide data for on-going measures within the implementation of the GTS and for the review process of future development plans and associated SEA process requirements.

Environmental indicator assessment during monitoring can show positive, neutral or negative impacts on the environment. Where an indicator value highlights a positive or neutral impact on the environment, it is likely that the policies and objectives of the Strategy are well-defined with regard to the environment. Conversely, where the objectives of the Strategy indicate a negative impact on

the environment, it may be necessary to review the detail of the implementation of the particular aspect of the Strategy or to develop a more appropriate and specific some form of mitigation. For example, if an objective or policy is having a significant adverse impact, a change may be considered during the lifetime of the Strategy.

### 10.3 Sources

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

The output of lower-tier environmental assessment and decision making – including a review of project approvals granted and associated documents – will also be utilised as part of the monitoring programme.

Where significant effects - including positive, negative, cumulative and indirect - have the potential to occur as a result of the undertaking of individual projects or multiple individual projects, such instances should be identified and recorded and should feed into the monitoring evaluation and reporting.

Table 10.1 Monitoring Environmental Indicators

Environmental Component	Indicators	Targets	Responsibility	Frequency / Timing
<b>BIODIVERSITY, FLORA &amp; FAUNA</b>	B1 & B2: Conservation status of habitats and species as assessed under Article 17 of the Habitats Directive	B1 & B2: Maintenance of favorable conservation status for all habitats and species protected under National and International legislation to be unaffected by implementation of the Strategy.	Galway City Council, Galway County Council, NPWS, Galway Biodiversity Action Plan, DHPCLG, DCCAE.	Monitoring of environmental likely significant effects on measure by measure basis as particular elements of the GTS are developed and advanced.  National Monitoring Report under Article 12 of the Birds Directive. (c. every 6 years).
	B3 & B4: Conservation Status of RAMSAR sites and habitat type within these wetland ecosystems as identified in Annex I of Habitats Directive.	B3 & B4: Maintenance of favorable conservation of RAMSAR sites and Annex I habitats under the Habitats Directive to be unaffected by implementation of the Strategy.	Galway City Council, Galway County Council, NPWS, Galway Biodiversity Action Plan, DHPCLG, DCCAE, Western River Basin District Plan stakeholders.	Monitoring of environmental likely significant effects on measure by measure basis as particular elements of the GTS are developed and advanced.
	B5: Level of Compliance with Regulation 49 restricting the introduction of any plant species in Part I of 3 <sup>rd</sup> Schedule of the 2011 Birds and Habitats Regulations and S.40 of Wildlife Act 1976.	B5: No spread or introduction of any invasive species arising from of implementation of any part of the Strategy.	Galway City Council, Galway County Council, NPWS.	Monitoring of delivery of GTS on a measure by measure basis as particular elements are advanced.

Environmental Component	Indicators	Targets	Responsibility	Frequency / Timing
	B6: Avoid adverse effects on vegetation from transport emissions arising from increases in traffic flows.	B6: Measurable loss of vegetation near congested areas	Galway City Council, Galway County Council, NPWS.	Monitoring of environmental likely significant effects on measure by measure basis as particular elements of the GTS are developed and advanced.
	B7: Promote beneficial effects through ecological enhancement interventions along new and existing transport corridors.	B7: Assessment of impact to ecology arising from new and existing corridors.	Galway City Council, Galway County Council, NPWS.	Monitoring of environmental likely significant effects on measure by measure basis as particular elements of the GTS are developed and advanced.
<b>POPULATION</b>	P1 & P2: Reduction in travel times to and within the city and alleviation of traffic congestion Increased modal shift from private car to public transport, walking and cycling Improvements to provision of social and physical infrastructure including availability of initiatives, public and community facilities, services and amenities public transport / smarter travel	P1 & P2: Create a good quality of life, the provision of improved physical and social infrastructure, and reduce travel times and traffic congestion and allow for an integrated sustainable transport and land use system that eases movement to and within the city and promotes sustainable transport modes	Galway City Council, Galway County Council, TII, DTTAS, Public transportation operators and other transport stakeholders, social infrastructure stakeholders.	Monitoring of environmental likely significant effects on measure by measure basis as particular elements of the GTS are developed and advanced.  On-going regular monitoring supplemented by data arising from development of GTS measures (every c. 2 years).



Environmental Component	Indicators	Targets	Responsibility	Frequency / Timing
	P3: A qualitative assessment of the likely potential impacts arising from changes to the transport network.	P3: Increase access to employment opportunities, especially for those who are physically, economically or socially disadvantaged.	Galway City Council, Galway County Council, TII, DTTAS, Public transportation operators and other Transport stakeholders, social infrastructure stakeholders	Monitoring of environmental likely significant effects on measure by measure basis as particular elements of the GTS are developed and advanced.  On-going regular monitoring supplemented by data arising from development of GTS measures (every c.2 years).
HUMAN HEALTH	H1: A qualitative assessment of the likely potential impacts from changes to the transport network.	H1: This Objective is focused on potential health improvement and benefits, which could arise from transport-related activities, principally promoting and encouraging greater uptake of walking and cycling.	Galway City Council, Galway County Council, Galway Healthy City Forum, LECP stakeholders	Monitoring of environmental likely significant effects on measure by measure basis as particular elements of the GTS are developed and advanced.  On-going regular monitoring supplemented by data arising from development of GTS measures (every c.2 years).
	H3 & H4: A qualitative assessment of the likely potential impacts arising from transport improvements.	H3 & H4: Address and reduce risks to human safety and health from transport activities and infrastructure relating primarily to road traffic accidents.	H3 & H4: Galway City Council, Galway County Council, Galway Healthy City Forum, LECP stakeholders, NTA, DTTAS	Monitoring of environmental likely significant effects on measure by measure basis as particular elements of the GTS are developed and advanced.  On-going regular monitoring supplemented by data arising from development of GTS measures (every c.2 years).

Environmental Component	Indicators	Targets	Responsibility	Frequency / Timing
	H5: Extent of urban/suburban areas within the catchment of transport infrastructure and services	H5: To maximise the extent of urban/suburban areas within the catchment of transport infrastructure and services	Galway City Council, Galway County Council, TII, NTA, DTTAS, public transportation operators and other transport stakeholders, social infrastructure stakeholders	On-going regular monitoring supplemented by data arising from development and delivery of GTS measures (every c.2 years).
<b>SOILS INCLUDING GEOLOGY</b>	S1: Quality of soils status through monitoring of historical landfill sites and enforcement and implementation of waste permit regulations.	S1: Ensure all soils remain healthy and capable of supporting human activities.	S1: Galway City Council, Galway County Council, EPA	Internal monitoring of likely significant environmental effects on a project by project basis where potential for interaction with historical landfill sites occur.  Review of CORINE mapping (every c.5 years).
	S2: Results of ground investigations and compliance with Guidelines on Procedures for the Assessment and Treatment of Geology, Hydrology and Hydrogeology for National Road Schemes.	S2: Ensure geological and geomorphological heritage is protected through adequate geological surveying and monitoring.	S2: Geological Survey of Ireland, Galway City Council, Galway County Council, EPA	Monitoring of environmental likely significant effects on measure by measure basis as particular elements of the GTS are developed and advanced.
	S3: Extent of brownfield land reused and regenerated which has been facilitated by the Strategy	S3: Maximisation the sustainable reuse and regeneration of brownfield sites leading to higher efficiency of land utilisation, sustainable mobility and a reduction in the need to develop greenfield lands;	S3: Galway City Council, Galway County Council	Monitoring of environmental likely significant effects on measure by measure basis as particular elements of the GTS are developed and advanced.

Environmental Component	Indicators	Targets	Responsibility	Frequency / Timing
	S4: Qualitative assessment of effects on important Agricultural soil resources.	S4: Protection of agricultural lands with rich soil resources.	S4: Galway City Council, EPA, Private Developers and Operators.	Internal monitoring of likely significant environmental effects on a project by project delivery.  Review of CORINE mapping (every c.5 years).
	S5: Increase in recycling, and recovery of C&D waste, enforcement and implementation of waste permit regulations.	S5: Reuse and recycle C&D waste at source and encourage use of appropriate materials from local sources which have less 'embodied energy'	S5: Galway City Council, EPA, Private Developers and Operators.	EPA National Waste Reports annually
	S6: Assess movement in the position of shoreline	S6: Ensure development arising from the implementation of any part of the strategy will not contribute to coastal erosion.	S6: Coastal & Marine Resources Centre, Marine Institute, Galway City Galway, Galway County Council.	Review of CORINE mapping (every c.5 years).
WATER	W1: Classification of Overall Status (comprised of ecological and chemical status) under the European Communities Environmental Objectives (Surface Waters) Regulations	W1: Not to cause deterioration in the status of any surface water or affect the ability of any surface water to maintain 'good status'.	W1: Galway County Council, EPA, Western River Basin District Plan stakeholders	Annually
	W2: Mandatory and Guide values as set by the EU Bathing Water Directive and transposing Bathing	W2: To contribute towards the achievement of - as a minimum - Mandatory values and, where possible,	W2: Galway City Council, Galway County Council, EPA	On-going regular monitoring supplemented by data arising from development and delivery of GTS measures (every c.2 years).

Environmental Component	Indicators	Targets	Responsibility	Frequency / Timing
	Water Quality Regulations	to achieve Guide values as set by the EU Bathing Water Directive and transposing Bathing Water Quality Regulations		
	W3: Check Water Body Status and compliance with Water Framework.	W3: Prevent deterioration and maintain high status where it exists.	W3: Galway City Council, Galway County Council, EPA,	On-going regular monitoring supplemented by data arising from development and delivery of GTS measures (every c.2 years).
	W4: Compliance of strategy with Regional River Basin Management Plans	W4: Ensure Strategy objectives are compliant with relevant River Basin Management Plan.	W4: EPA, Western River Basin District Plan stakeholders	On-going regular monitoring supplemented by data arising from development and delivery of GTS measures.
	W5: Competition of Flood Risk Assessments for selected development sites.	W5: Protect against and reduce likelihood of flood risk for future infrastructure projects.	W5: Galway City Council, Galway County Council	On-going regular monitoring supplemented by data arising from development and delivery of GTS measures.
<b>AIR QUALITY, CLIMATE &amp; NOISE</b>	A1: Compliance with Ambient Air Quality and Cleaner Air for Europe (CAFÉ) Directive and associated legislation.  A2: Greenhouse gas emissions from transport.	A1 & A2: To contribute towards compliance with legislative air quality limits and target values.	A1 & A2: Galway City Council, EPA	On-going regular monitoring supplemented by data arising from development and delivery of GTS measures (every c.2 years).
	A3: Percentage of population travelling to work, school or college by	A3: An increase in the percentage of the population travelling to school or work	A3: Central Statistics Office, Galway City Council, Galway County Council, TII, DTTAS, DHPCLG, DCCAE, Galway Energy Agency	Review of CSO Survey Data (every c.5 years).

Environmental Component	Indicators	Targets	Responsibility	Frequency / Timing
	public transport, bicycle or walking.	by Public Transport, bicycle or walking.		
	A4: Minimise noise and vibration arising from traffic with regard to the Environmental Noise Directive and associated Noise regulations (S.I 140 2006)	A4: Monitoring of noise and vibrations from selected nearby locations.	A4: Galway City Council, Galway County Council, EPA	On-going regular monitoring supplemented by data arising from development and delivery of GTS measures (every c.2 years).
<b>MATERIAL ASSETS</b>	M1 & M2: Percentage of population travelling to work, school or college by public transport or non-motorised means	M1 & M2: An increase in the percentage of the population travelling to work, school or college by public transport or non-motorised means.	M1 & M2: Central Statistics Office, Galway City Council, Galway County Council, TII, DTTAS, DCCAE, Galway Energy Agency	Review of CSO Survey Data (every c.5 years).
	M3: Assessment of likely impacts of works that form part of strategy on utilities.	M3: Avoidance/ protection of public assets in construction works that arise from implementation of any part of the Strategy.	M3: Galway City Council, Galway County Council	Internal monitoring of likely significant environmental effects on a project by project basis.  NPWS monitoring of likely significant environmental effects on a project by project basis.
	M4: Percentage increase in traffic flows in certain areas.	M4: Reduction or prevention of further traffic increases.	Galway City Council, Galway County Council, TII, DTTAS	Annually
	M5: Promote waste prevention and minimisation.	M5: Percentage increase in recovery and recycling of waste	Galway City Council, Galway County Council	Annually
<b>CULTURAL HERITAGE</b>	CH1, CH2 & CH3: Check for Infringement on entries to	CH1, CH2 & CH3: Protect entries to the Record of	CH1, CH2 & CH3: Galway City Council, DAHRRGA, Galway	Monitoring of Statutory Consultee inputs on environmental effects as

Environmental Component	Indicators	Targets	Responsibility	Frequency / Timing
	the Record of Monuments including Zones of Archaeological potential and infringement on Entries to the Record of Protected Structures and architectural conservation areas arising from implementation of part of the Strategy.	Monuments and Places - including Zones of Archaeological Potential (and their context of the above within the surrounding landscape where relevant) from adverse effects resulting from the Strategy.	Heritage Plan stakeholders, Galway City & County Cultural Strategy stakeholders,	particular elements of the GTS and developed and advanced.
	CH4: Quantitative assessment of reduction in traffic flow in proximity to designated sites.	CH4: Increase accessibility to cultural heritage though a reduction in traffic flows unrelated to tourist/cultural activities.	Ch4: TII, NTA, Galway City Council, Galway County Council	On-going regular monitoring supplemented by data arising from development and delivery of GTS measures.
<b>LANDSCAPE</b>	L1, L2 & L3: Assessment of number of concerns received from Statutory Consultees with regard to the most sensitive and valuable landscapes within the county resulting to implementation of part of the Strategy.	L1, L2 & L3: Protection, where possible, of the county's landscapes which are most valuable, sensitive or have protected focal points and views.	L1, L2 & L3: Galway City Council, Galway County Council	Monitoring of Statutory Consultee inputs on environmental effects as particular elements of the GTS and developed and advanced.



Environmental Component	Indicators	Targets	Responsibility	Frequency / Timing
	<p>L4: Delivery of actions identified under Galway Biodiversity Action Plan and Galway Heritage Plan.</p> <p>Improvements to the green network</p>	L4: Protect and enhance the green network in a sustainable manner	L4: Galway City Council, Galway County Council, Galway Biodiversity Action Plan and Galway Heritage Plan stakeholders, private developers/ landowners	<p>Monitoring of environmental likely significant effects on measure by measure basis as particular elements of the GTS are developed and advanced.</p> <p>During review process for review of biodiversity and action plans.</p>
	L5: Number of unmitigated conflicts with the appropriate protection of statutory designations relating to the landscape, including those included in the land use plans of planning authorities.	L5: No unmitigated conflicts with the appropriate protection of statutory designations relating to the landscape, including those included in the land use plans of planning authorities	L4: Galway County Council, Galway City Council, DAHRRGA, DHPCLG, DCCAE.	Monitoring of environmental likely significant effects on measure by measure basis as particular elements of the GTS are developed and advanced.

EPA: Environmental Protection Agency  
Galway LECP: Galway Local Economic and Community Plan  
NPWS: National Parks and Wildlife Service  
NTA: National Transport Authority  
TII: Transport Infrastructure Ireland

DAHRRGA: Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs  
DCCAE: Department of Communications, Climate Action and Environment  
DHPCLG: Department of Housing, Planning, Community and Local Government  
DTTAS: Department of Transport, Tourism and Sport

## 11.0 Conclusion

The Galway Transport Strategy 2016-2032, its components and supporting measures are key to development of a sustainable transport system for Galway City and its environs. The Strategy sets out infrastructural, operational and policy measures proposed in order to provide Galway City and its environs with a clear transport implementation framework over the next 20 years. The Strategy will be used to secure funding to deliver projects in a phased manner based on priority needs and will underpin the objectives of the current and future Galway City and Galway County Development Plans.

The Strategic Environmental Assessment process has been carried out in conjunction with the Appropriate Assessment Natura Impact Statement (NIS), a Strategic Flood Risk Assessment (SFRA) and the preparation of the GTS itself. This allows for an early indication of the potential environmental effects likely to occur as a result of the implementation of the measures within the GTS. As a result, changes or alterations to the GTS are made throughout the course of its preparation. Through this process of assessment and re-assessment, it was identified that particular measures could potentially have a negative environmental impact on particular environmental receptors or indeed on a number of them simultaneously. The benefit of preparing the GTS, the NIS, the SFRA and the Environment Report ensures that these issues are highlighted at an early stage in the process. This allows the potential negative impacts of the Strategy to be predicted early on, evaluated and effectively prevented or mitigated.

The measures and components of the strategy were assessed against the Strategic Environmental Objectives and indicate that the full implementation of the Strategy will not result in a significant negative or adverse impact on the environmental resources within the study area. It has been shown in this report that the measures and components within the GTS are generally consistent with this summary and as a result the Strategy will have a neutral to positive impact on the environment as a whole.

Where the SEA has found potential for negative impacts on the environment as a result of the implementation of the GTS, mitigation as well as enhancement measures have been proposed. The implementation of these measures, coupled with the monitoring procedures will ensure the GTS is acceptable from an environmental perspective.

In addition, the NIS of the GTS was prepared to give information on and assess the potential of the GTS to impact on European Sites. It concludes that with appropriate mitigation, it will not adversely affect the integrity of European Sites within the zone of influence of the GTS in isolation or in combination with other Plans and Projects acting in the same area.

Finally at the outset of the assessment process, a number of environmental issues were identified. While these are and remain the key environmental challenges facing Galway City and Galway County Council over the lifetime of the Strategy, they also have complex interrelationships with other environmental receptors. Therefore, the imperative is to promote a holistic, all-inclusive response towards the protection of the natural assets within the Strategy study area.

In summary, the assessment of the GTS has concluded that its measures and components are acceptable and represent a balanced and fair approach to the development of a sustainable transport system for Galway City and its environs. Monitoring of the Strategy throughout its lifetime will ensure that any potential adverse environmental impacts, unforeseen at this stage will be identified early, so as to prevent any deterioration of the environment. This GTS, as currently presented, balances a

transport framework for Galway with environmental protection and can deliver a sustainable transport systems for the inhabitants of the Galway City and its environs.

## Appendix I A: Scoping Submissions



Ms Sharon Connolly  
Senior Engineer  
Planning and Transportation Department  
Galway City Council  
City Hall  
College Road  
Galway

19<sup>th</sup> May 2016

Our Ref: SCP160402.1

**Re: Scoping Report for Strategic Environmental Assessment for the Galway Transport Strategy 2016-2036**

Dear Ms. Connolly,

I refer to and acknowledge your correspondence, dated 28<sup>th</sup> April, in relation to the Strategic Environmental Assessment Scoping for the Galway Transport Strategy 2016-2036 (the Strategy).

**Comments to be considered**

A number of key aspects to be considered are outlined below and should be taken into account in the draft Strategy and SEA.

*Supporting Achievement of a Low Carbon Economy*

We welcome the intention to promote the increased use of public transport, cycling and walking within the Strategy. In seeking to support achieving a low carbon economy, it is important to consider and manage transport related emissions within the Strategy area.

*Traffic Management*

The Strategy should consider the development of traffic management measures to reduce the potential for traffic congestion and associated vehicular emissions. Traffic/transport management planning should consider and address the short, medium and long-term traffic management requirements within the Strategy area over the lifetime of the Strategy.

*Noise*

The assessment and management of noise from the main infrastructural transport sources (roads, rail, and airports) are governed by the Environmental Noise Directive and associated 2006 Environmental Noise Regulations (S.I. 140 of 2006). The Strategy should promote the implementation of this Directive and associated national regulations.  
<http://www.environ.ie/environment/noise/si-140-2006-environmental-noise-regulations-2006>

Available Noise Action Plans should be taken into account also and reviewed as required, to reflect the Strategy period and associated development proposals. Incorporating any relevant noise maps, and action plans may also be useful. Strategic noise maps are designed to assess noise exposure resulting from major roads, railways and airports. Noise action plans are



designed to act as a means of managing environmental noise through land use planning, traffic management and control of noise sources. The third round of noise mapping is currently underway in Ireland and will be completed in 2018. Further information on this is available at <http://noise.eionet.europa.eu/help.html>.

The Strategy should consider protecting, where relevant, any designated quiet areas in open country. In 2003, the EPA commissioned a [research project](#) to establish baseline data for the identification of quiet areas in rural locations. Quiet Areas are defined as “*an area in open country, substantially unaffected by anthropogenic noise.*” A range of minimum distance criteria from man-made noise sources such as urban areas, industry and major road sources were defined, and the report includes a number of key recommendations for the identification and control of Quiet Areas.

#### *Air Quality*

The need to protect and improve, (as appropriate), air quality within the Strategy area, particularly in areas zoned for increased urban and transport related development should be highlighted in the Strategy. Air quality legislation in Ireland highlights the need “*to avoid, prevent or reduce harmful effects on human health and the environment as a whole*”. In addition, it requires that Local Authorities where appropriate “*shall promote the preservation of best ambient air quality compatible with sustainable development*”. These requirements should be incorporated by means of a specific objective.

#### *Some Additional Plans / Programmes to Consider*

- National Planning Framework
- Regional Spatial and Economic Strategy
- National Mitigation Plan
- Wild Atlantic Way
- Galway Port-related Development
- Dublin - Galway Greenway
- River Basin Management Planning (second cycle currently under preparation)

The attached integration document sets out the key environmental issues, as relevant and appropriate, to be taken into account in the preparation of the SEA and Strategy.

Specific comments may be provided upon receipt of the Draft Environmental Report and Strategy and associated documents during the next statutory consultation phase of the SEA Process.

#### **Scoping Process Guidance**

Guidance on the SEA Scoping Process, including an SEA Pack, Integration Guidance, SEA Checklist, SEA Spatial Information Sources and guidance on *Integrating Climate Change into SEA* and *Developing SEA Alternatives*, is available on the EPA website and should be considered in the preparation of the SEA. These can be consulted at the following address: <http://www.epa.ie/pubs/advice/ea/>.

#### **SEA WebGIS Search and Reporting Tool**

The EPA WebGIS Search and Reporting application is an online GIS based web application that will allow users to explore, interrogate and produce an indicative report on key aspects of the environment in specific geographic areas. These reports are indicative and will provide an overview of key aspects of the environment within a specific area. This may be used to inform the SEA screening and scoping stages for Plans and Programmes with particular reference in the first instance to the land use sector, though it is also applicable to other sector plans. It may be accessed via [www.edenireland.ie](http://www.edenireland.ie)



**Environmental Authorities**

Under the SEA Regulations (*S.I. No. 435 of 2004*), as amended by *S.I. No. 200 of 2011*, notice should also be given to the following:

- The Minister for the Environment, Community & Local Government
- Minister for Agriculture, Marine and Food, and the Minister for Communications Energy and Natural Resources, where it appears to the planning authority that the plan or programme, or modification of the plan or programme, might have significant effects on fisheries or the marine environment
- where it appears to the competent authority that the plan or programme, or amendment to a plan or programme, might have significant effects in relation to the architectural heritage or to nature conservation, the Minister for Arts, Heritage and Gaeltacht Affairs, and
- any adjoining planning authority whose area is continuous to the area of a planning authority which prepared a draft plan, proposed variation or local area plan.

Should you have any queries or require further information in relation to the above please contact the undersigned. I would also be grateful if an acknowledgement of receipt of this submission could be sent electronically to the following address: [sea@epa.ie](mailto:sea@epa.ie).

Yours Sincerely,



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**Cian O'Mahony**  
*Scientific Officer*  
*SEA Section*  
*Office of Environmental Assessment*  
*Environmental Protection Agency*  
*Regional Inspectorate*  
*Inniscarra, County Cork*

## **INTEGRATION OF ENVIRONMENTAL CONSIDERATIONS**

### **Summary of Latest Updates in 2016**

Changes	Comments
29/10/15	Link to Air Quality in Ireland Report for 2014 (EPA, 2015)
19/02/16	Link to Urban Wastewater Treatment Report for 2014 (EPA, 2015)
11/03/16	Updated link to GIS SEA Manual now available
11/03/16	Updated Noise section
24/04/16	Updated link to EPA Bathing Water Quality Report for 2015 (EPA, 2016)
19/05/16	Added link to CORINE 2012 Data in Appendix II
19/05/16	Added link to EPA/WRA Draft SEA Resource Manual in Appendix I

The Environmental Protection Agency (EPA) is a statutory Environmental Authority under the SEA Regulations. Our role in SEA in relation to Land Use Plans focuses on promoting full integration of the findings of the Environmental Assessment into the Strategy. It is not the function of the EPA to either approve or enforce Land Use Plans. The EPA is focusing our efforts/resources in influencing the preparation of key national and regional plans within the planning hierarchy.

In light of the above, we intend to provide a ‘self-service approach’ to responding to submissions on plans lower in the planning hierarchy through use of this template. In this respect, where specific comments are not provided on this particular Strategy (and at this stage of the SEA process), we recommend that you take this guidance document into account, and also incorporate the more detailed available guidance and other available resources on our website at <http://www.epa.ie/pubs/advice/ea/>. These resources include:

- SEA process guidance,
- Integration of environmental considerations in land use planning guidance,
- List of available environmental spatial data sets.
- [SEA GIS Search and Reporting Tool](#) for local authority plan-makers which may be useful in the preparation of the SEA and Draft Strategy.
- Recent EPA SEA related guidance on [Integrating Climate Change into SEA](#), [Developing and Assessing Alternatives in SEA](#) and [GIS SEA Manual](#).

The Strategy should be consistent with key relevant higher level plans / programmes in the planning hierarchy (at a regional and national level) and be set in the context of national SEA Regulations, Planning & Development Regulations and associated DECLG Guidelines including *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* (DECLG, 2004) and the *Development Plans - Guidelines for Planning Authorities* (DECLG, 2007).

Ireland’s environment is a key national strategic and valuable asset which needs to be protected and proactively managed to ensure it forms the basis of Ireland’s economic wellbeing and a healthy society. The Strategy should ensure that the natural resources and environmental conditions that are fundamental to the economic and social wellbeing of future generations are protected and are not degraded or exhausted. Four key environmental challenges for Ireland have been identified in *Ireland’s Environment 2012* (EPA, 2012) which should be taken into account in the Strategy. There are as follows: *Valuing and Protecting our Natural Environment*, *Building a Resource-Efficient Low-Carbon Economy*, *Implementing Environmental Legislation* and *Putting the Environment at the Centre of our decision making*,

Section II of *Ireland’s Environment 2012* describes the six key thematic areas which should be considered and assessed in the Strategy. These are *Greenhouse Gases and Climate Change*, *Air Quality (and Transboundary Air Emissions)*, *Water*, *Sustainable Resource Use*, *Consumption and Waste*, *Nature and Biodiversity* and *Land & Soil*. The Strategy should consider how to address the challenges above, taking into account the thematic areas described, in order to ensure proper planning and sustainable development is promoted in the lifetime of



the Strategy. The EPA also has available as reference the Irelands Environment section on its website. This provides an overview of key issues in thematic areas and links to environmental indicator data.

In addition to the high level goals and challenges described above, the EPA has summarised the key environmental aspects which should be incorporated, as appropriate, in the preparation of the SEA and Draft Strategy.

## KEY SIGNIFICANT ENVIRONMENTAL ASPECTS TO CONSIDER

### Water

#### Water Framework Directive

##### **Protection of Surface and Ground Water Resources**

Protecting our valuable surface and ground water resources is of vital importance to protect both human health and provide for a healthy environment. In this context, the Strategy should provide clear commitments to protect surface water, groundwater and coastal/estuarine resources and their associated habitats and species, including fisheries within and adjacent to the Strategy area. Where specific recommendations/concerns for water bodies within the Strategy area are identified in EPA water quality reports, including the *Water Quality in Ireland 2010 – 2012* (EPA, 2015) and relevant regional water quality reports, these should also be addressed/considered at an appropriate level in the Strategy.

The Strategy should also ensure that any specific relevant objectives and measures for individual water bodies, within the Strategy area as set out in the existing relevant Water Framework Directive River Basin Management Plan, are provided for in order to ensure water quality is protected/improved/maintained. The Strategy should consider that subsequent water management plans (including catchment management plans) may arise out of current review of the second cycle of WFD River Basin Management Planning should be integrated as appropriate upon their adoption.

The [\*European Union \(Water Policy\) Regulations 2014\*](#) (S.I. No. 350 of 2014) sets out the roles and responsibilities of the various stakeholders and the associated requirements in relation to river basin management planning and should be integrated as appropriate. These responsibilities should be reflected in the Strategy and the associated environmental monitoring.

##### **Protection of Groundwater Resources**

Groundwater aquifers form important sources of drinking water both locally and regionally. Much of the summer seasonal flow in many rivers is also derived from groundwater sources. To maintain high quality water resources within the Strategy area, it is important that development is controlled and managed appropriately, in particular in areas of high groundwater vulnerability to avoid transmission of pollutants into important aquifers.

The Strategy should include a clear Policy / Objective for the protection of groundwater resources and associated habitats and species. The Strategy should also include a commitment to integrate any existing Groundwater Protection Schemes and Groundwater Source Protection Zones, as relevant and appropriate within the Strategy area. The Strategy should also include a commitment to comply with the [\*European Communities Environmental Objectives \(Groundwater\) Regulations 2010\*](#) (S.I. No. 9 of 2010).

##### **Protection and Management of Bathing Waters**

The obligation to protect bathing waters within (and adjacent to) the Strategy area should also be reflected in the Strategy. Bathing Waters are afforded protection under Directive 2006/7/EC, known as the ‘*Directive on bathing water*’, which is transposed into National legislation by the *Bathing Water Quality Regulations 2008* (S.I. No. 79) of 2008. In addition, under the Water Framework Directive, recreational waters/bathing water areas are included on the Register of Protected Areas. The Strategy should provide for the protection of any waters which are used for bathing within or adjacent to the Strategy area.

The EPA’s most recent report on bathing water quality ‘[\*The Quality of Bathing Water in Ireland – A Report for the Year 2015\*](#), (EPA, 2016)’ sets out the status of Irish Seawater and Freshwater Bathing areas and should be integrated as appropriate. The EPA’s available bathing water advice/guidance includes an online GIS resource called “[Splash](#)” which should be considered.

### **Water Framework Directive & Biodiversity**

Any sites of significant biodiversity value within or adjacent to the Strategy area listed on the Water Framework Directive Register of Protected Areas, (such as Fresh Water Pearl Mussel Catchments, designated Salmonid waters, fisheries / shellfisheries), should be protected in preparing the Strategy.

### **Flood Prevention and Management**

The Strategy should fully comply with [\*The Planning System and Flood Risk Management - Guidelines for Planning Authorities\*](#) (OPW/DEHLG, 2009). These Guidelines place requirements on planning authorities to carry out strategic flood risk assessments and also to ensure that development/zoning of vulnerable land uses, in areas at significant risk of flooding (flood zones A and B) is avoided. In effect, only flood/water compatible uses should be built in flood plains. Where this is not possible, any proposal for development/zoning is required to include a 'Justification Test' in accordance with the Guidelines.

A specific Policy should be included to provide for/promote appropriate flood risk assessments to be undertaken, where development / zoning is being proposed in the Strategy area where there is significant risk of flooding, in accordance with the Guidelines referred to above.

The Strategy should also promote the development, where appropriate, of adaptation measures to account for the likely increased risk of flooding due to climate change within the Strategy area, including implementation of adequate and appropriate Sustainable Urban Drainage Systems. Additionally, the Strategy should provide for protection, management, and as appropriate, enhancement of existing wetland habitats where flood protection/management measures are necessary.

Integrated Coastal Zone Management should also be considered as relevant and appropriate, to inform the preparation of coastal plans and programmes.

### **Biodiversity**

Biodiversity within the Strategy area may include designated and undesignated sites, habitats, species and networks of importance at an international, national, regional or local level. The protection of ecological resources is a key consideration which needs to be addressed. In this regard, the Strategy should include clear Policies/Objectives to conserve and protect all designated sites within and adjacent to the Strategy area (including the habitats and/or species for which they have been selected, or which they support), and should also promote the protection of undesignated sites and local biodiversity features.

The Strategy should also promote the need to protect wider aspects of biodiversity including ecological corridors / linkages / green infrastructure, areas of important local biodiversity, the provision of buffer zones between developments and areas of significant biodiversity and ensuring appropriate control and management measures for invasive species.

Plans should be supported / informed by available habitat mapping (including wetland mapping) and other ecological surveys as relevant. The Strategy should refer to and reflect the relevant commitments in *Ireland's National Biodiversity Plan – Actions for Biodiversity 2011-16* (DAHG, 2011). Local Heritage/Biodiversity plans should be highlighted and should promote the implementation of key actions set out in these plans. Where not established, commitments should be included to prepare these plans.

### ***Appropriate Assessment***

The Strategy should promote the application of the guidance set out in the DECLG Publication '[\*Appropriate Assessment of Plans and Projects in Ireland- Guidance for Planning Authorities\*](#)' (2009; revision 2010), in relation to the requirements of Article 6 of the Habitats Directive.

The Strategy should include a commitment to ensure compliance with the requirements of Article 6 of the Habitats Directive. The Strategy should also be subject to Appropriate Assessment (AA). The Strategy should

include a clear Policy/Objective that sets out a requirement for AA Screening for new, reviewed or amended Plans and proposed projects, which may have the potential to impact on European sites. Potential for cumulative/in-combination effects associated with other relevant Plans/Programmes/Projects should also be determined.

## **Air, Noise And Climatic Factors**

### ***Noise***

The objectives of EU and Irish noise legislation is “*to avoid, prevent or reduce harmful effects on human health and the environment as a whole*”, and this includes noise nuisance. To this effect the Strategy should ensure this requirement is complied with. **The assessment and management of noise from the main infrastructural transport sources (roads, rail, and airports) are governed by the Environmental Noise Directive and associated 2006 Environmental Noise Regulations (S.I. 140 of 2006). In this context, as appropriate, the Strategy should promote the implementation of Environmental Noise Directive and associated national regulations.** <http://www.environ.ie/environment/noise/si-140-2006-environmental-noise-regulations-2006>

Available Noise Action Plans should be taken into account also and reviewed as required, to reflect the Strategy period and associated development proposals. Consideration should be given to any relevant noise maps, and action plans. Strategic noise maps are designed to assess noise exposure resulting from major roads, railways and airports. Noise action plans are designed to act as a means of managing environmental noise through land use planning, traffic management and control of noise sources. The third round of noise mapping is currently underway in Ireland and will be completed in 2018. <http://noise.eionet.europa.eu/help.html>.

Consideration should be given to protect, where relevant, any designated quiet areas in open country. In 2003, the EPA commissioned a [research project](#) to establish baseline data for the identification of quiet areas in rural locations. Quiet Areas are defined as “*an area in open country, substantially unaffected by anthropogenic noise.*” A range of minimum distance criteria from man-made noise sources such as urban areas, industry and major road sources were defined, and the report includes a number of key recommendations for the identification and control of Quiet Areas.

### ***Air & Climatic Factors***

The need to protect and improve, (as appropriate), air quality within the Strategy area, particularly in areas zoned for increased urban and transport related development should be highlighted in the Strategy.

The integration of climate change adaptation and mitigation measures should be reflected in the Strategy, at the appropriate level either through relevant land use plans and/or specific sectoral plans e.g. Flood Risk Management Plans, Integrated Coastal Zone Management Plans etc. In this context, *Ireland's National Climate Strategy 2007 – 2012*, (DECLG, 2007) should be referred to.

Air quality legislation in Ireland highlights the need “*to avoid, prevent or reduce harmful effects on human health and the environment as a whole*”. In addition, it requires that Local Authorities where appropriate “*shall promote the preservation of best ambient air quality compatible with sustainable development.*”. These requirements should be incorporated by means of a specific plan objective / policy.

Recent [EPA reports on air quality](#) include the *Air Quality in Ireland 2014 Report*, (EPA, 2015) which sets out the most recent status in each of the four air quality zones in Ireland.

The EPA manages the national ambient air quality monitoring network and measures the levels of a number of atmospheric pollutants. The pollutants of most concern are those whose main source is traffic such as Particulate Matter and Nitrogen Dioxide should to be taken into account. Information in relation to these aspects is available at: <http://www.epa.ie/air/quality/monitor/#>



## **Waste Management**

The Strategy should promote the integration of land use zoning and development to existing and planned availability of waste infrastructure and capacity. The Strategy should also refer to and incorporate the relevant aspects of the relevant Regional Waste Management Plan.

In addition, the Strategy should promote and incorporate the relevant recommendations in the following series of EPA reports including:

- *The Nature and Extent of Unauthorised Waste Activity in Ireland (EPA, 2005)*
- *National Waste Report 2012 (EPA, 2014)*
- *National Hazardous Waste Management Plan 2014-2020 (EPA, 2015)*

## **Landscape**

The Strategy should provide for the protection of designated scenic landscapes, scenic views, scenic routes and landscape features of national, regional, county and local value. The Strategy should also take into account the landscape character adjoining the Strategy area. Visual linkages between established landmarks and landscape features and views should be taken into account when land is being zoned and when individual development proposals are being assessed / considered. The *National Landscape Strategy* (DECLG, 2015) should be taken into account and integrated as appropriate into the Strategy.

## **Geology / Geomorphology**

The Strategy should protect any designated Geological and Geomorphological NHAs/pNHAs, which may be present/designated within or adjacent to the Strategy area in consultation with the Geological Survey of Ireland.

## **Transportation**

In seeking to support achieving a low carbon economy, it is important to consider and manage transport related emissions within the Strategy area. In this regard the Strategy should promote, and as appropriate provide for sustainable modes of transport. The Department of Transport, Tourism and Sport Report '*Smarter Transport – A Sustainable Transport Future*' (DTTS, 2009) should be reviewed in the context of possible initiatives which could be included as objectives within the Strategy.

Promoting the development of traffic management measures to reduce the potential for traffic congestion and associated vehicular emissions should be considered. In particular, it would be useful to prepare (and review existing) Integrated Traffic Management Plans, where relevant and appropriate, for the existing urban areas and proposed new urban developments to consider and address the short, medium and long-term traffic management requirements within the Strategy area.

## **Infrastructure Planning**

Where zoning/rezoning of lands and the introduction of new development is being proposed within the Strategy area, the Strategy should promote the need for an integrated planning approach to service any development proposed and authorised during the lifetime of the Strategy in collaboration with key stakeholders.

The Strategy should, (when considering additional development proposals), support and promote the provision of adequate and appropriate critical service infrastructure, surface and storm water drainage, public transport, waste management, community services and amenities etc. on a planned and phased basis. This is in the context of taking into account and addressing existing infrastructural inadequacies to meet the expected needs of predicted increases in population associated with the Strategy implementation.

The potential impact on human health, habitats and species of ecological importance, flood risk and water quality should be taken into account in considering proposed additional infrastructure or in proposed upgrading of existing infrastructure.

### **Environmental Impact Assessment (EIA)**

The Strategy should highlight that, under the EIA and Planning & Development Regulations, certain projects arising during the implementation of the Strategy may require an EIA. It should be noted that projects may also require Appropriate Assessment screening, as required by Article 6 of the Habitats Directive. It should be noted that the EPA's role in relation to EIA relates only to facilities/sites which are licensable by the EPA, namely IPPC, waste water and waste sites.

# APPENDIX I: Some Useful Environmental Resources

Environmental Criteria	Selected Resources
State of Environment	<a href="http://www.epa.ie/irelandsenvironment">http://www.epa.ie/irelandsenvironment</a>
Surface Water	<a href="http://www.wfdireland.ie/index.html">http://www.wfdireland.ie/index.html</a> <a href="http://www.epa.ie/pubs/reports/water/waterqua/">http://www.epa.ie/pubs/reports/water/waterqua/</a>
Ground Water	<a href="http://j.mp/gsigroundwater">http://j.mp/gsigroundwater</a> <a href="http://www.epa.ie/downloads/pubs/water/ground/">http://www.epa.ie/downloads/pubs/water/ground/</a>
Drinking Water	<a href="http://www.epa.ie/pubs/reports/water/drinking/">http://www.epa.ie/pubs/reports/water/drinking/</a>
Waste Water	<a href="http://www.epa.ie/pubs/reports/water/wastewater/">http://www.epa.ie/pubs/reports/water/wastewater/</a>
Bathing Water	<a href="http://www.epa.ie/pubs/reports/water/bathing">http://www.epa.ie/pubs/reports/water/bathing</a> <a href="http://splash.epa.ie/#">http://splash.epa.ie/#</a>
Marine	<a href="http://www.marine.ie/Home/site-area/home/home">http://www.marine.ie/Home/site-area/home/home</a>
Biodiversity	<a href="http://www.npws.ie/guidance-appropriate-assessment-planning-authorities">http://www.npws.ie/guidance-appropriate-assessment-planning-authorities</a> <a href="http://www.npws.ie/publications">http://www.npws.ie/publications</a> <a href="http://maps.biodiversityireland.ie/#/Home">http://maps.biodiversityireland.ie/#/Home</a>
Flood Prevention and Management	<a href="http://www.floodmaps.ie">www.floodmaps.ie</a> <a href="http://www.cfram.ie">www.cfram.ie</a>
Air	<a href="http://www.epa.ie/pubs/reports/air/quality/">http://www.epa.ie/pubs/reports/air/quality/</a>
Climate	<a href="http://www.environ.ie/en/Environment/Atmosphere/ClimateChange/">http://www.environ.ie/en/Environment/Atmosphere/ClimateChange/</a> <a href="http://www.epa.ie/pubs/reports/research/climate/">http://www.epa.ie/pubs/reports/research/climate/</a>
Waste Management	<a href="http://www.epa.ie/pubs/reports/waste/">http://www.epa.ie/pubs/reports/waste/</a>
Radon	<a href="http://www.epa.ie/radiation/radonmap">http://www.epa.ie/radiation/radonmap</a>
Energy Conservation	<a href="http://www.sei.ie">www.sei.ie</a>
Landscape Character Assessment	<a href="http://www.heritagecouncil.ie/">http://www.heritagecouncil.ie/</a>
Geology / Geomorphology	<a href="http://www.gsi.ie/Mapping.htm">http://www.gsi.ie/Mapping.htm</a>
Transportation	<a href="https://www.nationaltransport.ie/planning-policy/">https://www.nationaltransport.ie/planning-policy/</a> <a href="http://www.nra.ie/environment/">http://www.nra.ie/environment/</a>
SEA	<a href="http://www.edenireland.ie">www.edenireland.ie</a> (SEAGIS Reporting Tool) <a href="http://www.epa.ie/pubs/advice/ea/">http://www.epa.ie/pubs/advice/ea/</a> <a href="http://www.epa.ie/pubs/consultation/manual/">http://www.epa.ie/pubs/consultation/manual/</a>
EIA	<a href="http://www.environ.ie/en/DevelopmentHousing/PlanningDevelopment/EnvironmentalAssessment/EIASEAGuidance">http://www.environ.ie/en/DevelopmentHousing/PlanningDevelopment/EnvironmentalAssessment/EIASEAGuidance</a>

## Appendix II: Some Useful Planning Related Resources

Environmental Criteria	Selected Resources
Spatial Planning GIS	<a href="http://www.myplan.ie">www.myplan.ie</a> <a href="http://www.epa.ie/soilandbiodiversity/soils/land/corine/">http://www.epa.ie/soilandbiodiversity/soils/land/corine/</a>
DECLG Guidelines / Legislation	<a href="http://www.environ.ie/en/DevelopmentHousing/PlanningDevelopment/Planning/">http://www.environ.ie/en/DevelopmentHousing/PlanningDevelopment/Planning/</a>
Flood Risk	<a href="http://www.cfram.ie">www.cfram.ie</a> <a href="http://www.floodmaps.ie">www.floodmaps.ie</a>

## Appendix III: Suggested High Level Plans/Programmes/Strategies (PPS) to Consider\*

Environmental Criteria	Suggested High Level Plans/Programmes/Strategies (PPS)
<b>National</b>	<ul style="list-style-type: none"> <li>- National Spatial Strategy (DECLG)</li> <li>- National Development Plan (DECLG)</li> <li>- Rural Development Programme (DECLG)</li> <li>- National CFRAMS Programme (DECLG)</li> <li>- National Renewable Electricity Policy Framework ( in preparation DCENR)</li> <li>- Grid 25 Implementation Strategy (Eirgrid)</li> <li>- National Hazardous Waste Management Plan (EPA)</li> <li>- Food Harvest 2020 / FoodWise 2025 (DAFM)</li> <li>- National Forestry Programme / Forestry Policy Review (DAFM)</li> <li>- Seafood Operation Programme / Strategic Aquaculture Programme (DAFM)</li> <li>- Harnessing Our Ocean Wealth (DAFM)</li> <li>- National Broadband Plan (DCENR)</li> <li>- National Landscape Strategy (DECLG)</li> <li>- National Peatland Strategy, SAC Raised Bog Management Plan (DAHG)</li> <li>- National Biodiversity Plan (DAHG)</li> <li>- Water Services Strategic Plan (Irish Water)</li> <li>- Capital Investment Programme (Irish Water)</li> <li>- Sectoral Climate Change Adaptation Strategies and Low Carbon Roadmaps</li> <li>- Smarter Transport / Strategic Framework for Integrated Land Transport (DTTAS)</li> <li>- Offshore Renewable Energy Development Plan (DCENR)</li> <li>- Offshore Oil and Gas Exploration (DCENR)</li> <li>- State of the Environment Report 2012 (EPA)</li> </ul>
<b>Regional</b>	<ul style="list-style-type: none"> <li>- Regional Spatial and Economic Strategies</li> <li>- Regional Planning Guidelines</li> <li>- River Basin Management Plans ( and Programme of Measures)</li> <li>- Relevant CFRAMS</li> <li>- Pollution Reduction Programmes for Shellfish Waters</li> <li>- Freshwater Pearl Mussel Sub-basin Management Plans</li> <li>- Forestry and Freshwater Pearl Mussel Plan (DAFM, in preparation)</li> <li>- Regional Waste Management Plan</li> <li>- National Transport Strategy for Greater Dublin Area</li> <li>- Wild Atlantic Way</li> <li>- Shannon Integrated Framework Plan (SIFP)</li> <li>- County Renewable Energy / Wind Energy Strategies</li> <li>- County Tourism Strategies</li> </ul>

**Note: \*Plan-makers should consider and identify key relevant PPS in the SEA. List of Plans is indicative only and some may not always be relevant to a particular plan.**



**An Roinn**  
**Ealaíon, Oidhreacht agus Gaeltachta**  
**Department of**  
**Arts, Heritage and the Gaeltacht**

26 May 2016

**Our Ref: Galway Transport Strategy SEA**

Ms. Sharon Connolly,  
Senior Engineer,  
Planning and Transportation Department,  
Galway City Council,  
City Hall,  
College Road,  
Galway

By email to [roads@galwaycity.ie](mailto:roads@galwaycity.ie)

**Re: SEA scoping for Galway Transport Strategy 2016-2036**

A Chara,

On behalf of the Department of Arts, Heritage and the Gaeltacht, I refer to the planning authority's recent correspondence in relation to the above. Outlined below are heritage-related observations/recommendations of the Department under the stated heading(s).

**Nature Conservation**

The Department refers to Galway City Council's correspondence and notice of 28/04/16 in respect of the proposed draft 'Galway Transport Strategy 2016-2036' at SEA scoping stage. Reference is also made to the '*Galway Transport Strategy Strategic Environmental Assessment Scoping Report*', by Brady Shipman Martin, which has been supplied. It is understood that this strategy is in preparation by the Council in conjunction with Galway County Council and the National Transport Authority, and that observations are currently being sought in relation to scope of this assessment.

The following observations are made in the context of the Department's role as an environmental authority under SEA legislation, and on the basis of the information that is currently available. The observations are not complete but are offered to assist the Council in meeting its obligations in relation to European sites, other nature conservation sites, natural habitats and protected species, and biodiversity and environmental protection in general when preparing the strategy and carrying out the environmental assessments required.

The Department has been consulted on the scope of the SEA Environmental Report at this stage. It is understood that the Council has also determined that an appropriate assessment is required, presumably because it cannot be excluded, on the basis of objective information, that the strategy, individually or in combination with other plans and projects will have a significant effect on a European site or sites. The current consultation has been taken as an opportunity to provide observations to the Council on the appropriate assessment process, and on the scope of the NIS or NIR required.

The Council has duties in relation to the safeguarding of European sites whether as the competent authority for appropriate assessment under Part XAB of the Planning and Development Act, 2000 as amended, or as a public authority within the meaning of the European Communities (Birds and Natural Habitats) Regulations, 2011<sup>1</sup>. These duties include the specific requirements of appropriate assessment, as expanded below, and also place obligations on the Council to exercise its statutory powers and functions in compliance with and, as appropriate, so as to secure compliance with the requirements of the Birds and Habitats Directives, and the Regulations. Appropriate steps must be taken to prevent the deterioration of natural habitats and the habitats of protected species as well as significant disturbances of species in European sites.

Headings have been used below to provide some structure to the nature conservation observations but most of the points are related equally to the Environmental Report and SEA process, as to the NIR or NIS and the appropriate assessment process.

With the challenges that are likely to arise in relation to assessing and mitigating the likely effects of long-term transport policies and objectives on European sites, the Department is available to meet if that would assist the Councils and National Transport Authority.

### *The Strategy*

It has been outlined that the strategy aims to address the current and future traffic requirements of Galway City and its environs, including Barna, Oranmore, Moycullen and Claregalway. It will be a long-term strategy which will have a clear implementation framework for the next 20 years, and will include the infrastructural, operational and policy elements to underpin development and economic objectives of the current and future Galway City and Galway County Development Plans and relevant Local Area Plans. When completed, it will be used to secure funding to deliver projects in a phased manner based on priority needs.

The strategy will have a vision underpinned by a series of seven guiding principles, and specific strategic objectives/measures that focus on four key areas: traffic network; local public transport; cycling, walking and public realm; and complementary measures.

While not identified specifically, it appears that the strategy will address some matters of particular concern for the Council in relation to Draft Galway City Development Plan 2017-2023 and the potential for certain transport-related policies and objectives to have adverse effects on the integrity of European sites. Possible examples include the rail connection to the new harbour development (planning application currently with An Bord Pleanála, and understood to be undergoing the Article 6(4) derogation procedures of the Habitats Directive), the N6 Galway City Transport Project, the Integrated Transport Management Plan, and the network of cycle and walking routes identified for development in the city in the current and new draft Galway City Development Plan. Most of these elements are within or cannot avoid European sites, or are linked to infrastructure which has recently been constructed or is due to be constructed in and adjacent to European sites.

### *Related Departmental submissions*

The Council will be aware that the Department's submission of 11/03/16 in respect of the Draft Galway City Development Plan 2017-2023 raised specific concerns for the Council regarding certain policies and objectives for developments and altered or intensified land uses within European sites. This submission is attached again for the Council's information. The implications of all parts of the current strategy, including associated maps, for the conservation objectives of European sites must be examined and assessed on their own and in combination with the current/new Development Plan, and with other plans and projects. Only those elements that are demonstrated to be compliant with the Habitats Directive and Birds Directive, or that can be adequately mitigated, may be incorporated into, or given effect by the strategy.

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<sup>1</sup> The Regulations are available in full at: <http://www.irishstatutebook.ie/2011/en/si/0477.html>



### *Environmental assessments required*

The Department notes that the Council has determined that SEA and an appropriate assessment are required for the strategy. Relevant legislation and guidance should be followed in relation to these assessments. While existing guidance on appropriate assessment should be followed in general terms, there should be due regard to changes in the interpretation and application of directives and legislation arising from case law of the Court of Justice of the European Union (CJEU), and of the Irish courts, particularly in the respect of Article 6 of the Habitats Directive.

It is unclear to this Department at present whether the Galway Transport Strategy 2016-2036 is a statutory land use plan<sup>2</sup>, or not, or whether it will be given effect by its incorporation into a statutory land use plan or plans. This should be made clear when the strategy goes on public display as it will govern the legislation under which the screening for appropriate assessment and the appropriate assessment are carried out by the Council. Irrespective of the legislation, however, the tests and standards of the appropriate assessment process must be met when it is carried out, and before a decision may be made to adopt or otherwise give effect to the strategy.

The relevant legislation sets out the terminology, stages and tests of appropriate assessment, including the decision making process. It should be noted that, following screening, the assessment process is an 'appropriate assessment', and the report or statement of the likely significant effects (in the case of a statutory land use plan) is an NIR<sup>3</sup>, or an NIS in the case of other plans (or projects). The references to 'assessment for appropriate assessment screening report' and 'Stage 2 appropriate assessment', as appear in Section 2.4 of the SEA scoping report, should be omitted in favour of terminology from the relevant legislation.

### *Available data/information sources*

The National Parks and Wildlife Service website ([www.npws.ie](http://www.npws.ie)) is a key source of data, information and publications, including GIS datasets, on nature conservation sites<sup>4</sup> and biodiversity issues of relevance to the strategy and its associated environmental assessments. This includes site boundaries, site synopses, lists of qualifying interests (SACs) and special conservation interests (SPAs), conservation objectives (European sites – see also below), features of interest (NHAs), and dates of site designation. GIS datasets are available for download for certain habitats and species arising from various sources, including national surveys<sup>5</sup>. Other NPWS-held data on habitats and species may be requested by submitting a 'Data Request Form'<sup>6</sup>.

Site-specific conservation objectives, and associated backing documents and GIS datasets, are available for download in the case of some European sites, including, in this case, Galway Bay Complex cSAC (site code 000268) and Inner Galway Bay SPA (site code 004031). The limitations of the data, however, should be noted as outlined, for example, under 'Notes/Guidelines' on page 3. For all other European sites, generic conservation objectives are available. Particular attention should be paid to whether the conservation objective is to maintain or to restore the favourable conservation condition of a habitat or species, or whether either could be the case, as in generic conservation objectives.

The Council is advised that site boundaries of nature conservation sites may be subject to change, and that additional information about sites, habitats and species will become available over time. It

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<sup>2</sup> As per Section 177R, Part XAB of the Planning and Development Act, 2000 as amended

<sup>3</sup> According to Section 177T of the Planning and Development Act, 2000 as amended, an NIR means a statement for the purposes of Article 6 of the Habitats Directive, of the implications of a Land use plan, on its own or in combination with other plans or projects, for one or more than one European site in view of the conservation objectives of the site or sites. It is required to include a report of a scientific examination of evidence and data, carried out by competent persons to identify and classify any implications for one or more than one European site in view of the conservation objectives of the site or sites.

<sup>4</sup> Special Areas of Conservation (SACs, currently known as candidate sites but fully legally protected); Special Protection Areas (SPAs); Natural Heritage Areas (NHAs); and also proposed Natural Heritage Areas (pNHAs)

<sup>5</sup> <http://www.npws.ie/maps-and-data/habitat-and-species-data>

<sup>6</sup> <http://www.npws.ie/maps-and-data/request-data>

is recommended that the most up-to-date data and information available from the NPWS website should be accessed and used at each successive stage of the plan-making process.

Data on ecological features in or near the plan area are available from various other sources including:

- The N6 Galway City Transport project, noting that extensive ecological surveys, including habitat, vegetation community, botanical and faunal surveys, have been carried out in recent years, together with the collation of available data and information, for the Galway City area and surrounds;
- Other organisations, e.g. National Biodiversity Data Centre, BirdWatch Ireland, Bat Conservation Ireland, etc.;
- Galway City Development Plan, Galway County Development Plan and relevant local area plans and their associated environmental assessments;
- EISs, NISs and other reports for projects in the plan area and surrounds, including for transport projects and infrastructure related to transport strategy elements, e.g. the coastal protection structures which are to support cycle and walking routes;
- Other habitat and natural heritage surveys carried out for or by the Council.

Data and information on the environmental baseline and trends are also available, e.g. in the case of water quality.

#### *Key ecological/natural heritage features*

Galway City and surrounds contain the following:

- European sites, including parts of Galway Bay Complex cSAC (site code 000268), Lough Corrib cSAC (site code 000297), Inner Galway Bay SPA (site code 004031) and Lough Corrib SPA (site code 004042). These are sites of international importance for nature conservation and form part of Ireland's contribution to the Natura 2000 network within the European Union;
- Natural Heritage Areas (NHA), including Moycullen Bogs NHA (site code 002364). These are sites of national importance for nature conservation established under the Wildlife (Amendment) Act, 2000, and legally protected under the Wildlife Acts, 1976-2000;
- Lough Rusheen Wildfowl Sanctuary (see S.I. 268 of 1982);
- Proposed Natural Heritage Areas (pNHAs). These are undesignated sites that are/were known to be of importance for biodiversity but have not yet been fully evaluated. Adopting a precautionary approach, sites not covered by other nature conservation designations should be given recognition in land use plans;
- Annex IV (Habitats Directive) species of flora and fauna, and their key habitats (i.e. breeding sites and resting places), which are strictly protected wherever they occur, whether inside or outside the above sites, e.g. Otter and bats;
- Other species of flora and fauna and their key habitats which are protected under the Wildlife Acts, 1976-2000, wherever they occur, e.g. Badger and Slender Cotton Grass (*Eriophorum gracile*);
- 'Protected species and natural habitats' as defined in the Environmental Liability Directive (2004/35/EC) and European Communities (Environmental Liability) Regulations, 2008, including:
  - Birds Directive – Annex I species and other regularly occurring migratory species, and their habitats (wherever they occur)
  - Habitats Directive – Annex I habitats, Annex II species and their habitats, and Annex IV species and their breeding sites and resting places (wherever they occur)

- Stepping stones and ecological corridors including nature conservation sites (other than European sites), habitat areas and species' locations covered by Article 10 of the Habitats Directive.
- Ecological mitigation measures associated with projects which have been constructed or have yet to be constructed, e.g. habitat retention and management measures, mammal underpasses, etc.

#### *NIS/NIR*

One of the key benefits of the environmental assessment procedures is that they influence and inform plans during their preparation, and allow for the integration of ecological and other environmental considerations with the visions, policies and objectives for the development of the city and environs. However, the implications of the strategy for European sites in view of their conservation objectives must be assessed, as must the likely significant effects on the environment.

Some general notes on the preparation of an NIS are included in Appendix 1 below, and these should be taken into account by the Council and its consultants. The NIS/NIR is the statement of the effects for the purposes of Article 6 of the Habitats Directive, and its findings must be taken into account when the appropriate assessment is carried out and a determination is made as to the implications of the strategy for the conservation objectives and integrity of European sites. Case law of the CJEU (Case C-258/11, *Sweetman and others*) has established that the appropriate assessment cannot have lacunae and must contain complete, precise and definitive findings and conclusions capable of removing all reasonable scientific doubt as to the effects of a project on a European site.

#### *SEA Environmental Report*

The Biodiversity, Flora and Fauna section of the SEA should be undertaken by or in conjunction with a suitably qualified ecologist(s), and other specialists as necessary, and in conjunction with the NIS/NIR to ensure full integration of biodiversity issues and concerns, particularly in relation to nature conservation sites, protected species, and ecological corridors and stepping stones – see above. The EPA's *Integrated Biodiversity Impact Assessment* best practice guidance is of particular 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. For biodiversity, flora and fauna, the scope of the SEA should include:

- All nature conservation sites, including proposed NHAs;
- Other ecological sites, including local biodiversity areas;
- Natural and semi-natural habitats, and the habitats of protected species, including information on habitats in the plan area derived from surveys (including NPWS-held datasets on habitats/habitat complexes and conservation objective supporting data, and the Council's and N6 GCTP habitat surveys and inventories within the plan area), and habitat indicator mapping;
- Species of wild flora and fauna, including rare and protected species and their habitats (including data on rare and protected species from NPWS, the National Biodiversity Data Centre, BirdWatch Ireland, etc.);
- All watercourses, surface water bodies and associated wetlands, including floodplains and flood risk areas;
- Other sites of high biodiversity value or ecological importance;
- Ecological networks and corridors, and stepping stones;
- Ecological mitigation/compensation measures or sites arising from existing projects, e.g. habitat retention or management areas or underpasses from road projects.

In general, no areas should be identified or targeted for development (e.g. through land use zoning, re-zoning or other strategies) without basic information on the ecological sensitivities of the lands in question, including a habitat map, i.e. the precautionary principle should apply and no areas should be committed to development in the absence of basic information on ecological constraints. Unusually in this case, habitat and ecological data and information are available for most of the city area and some of the surrounds.

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 Directive, the Birds Directive, the Water Framework Directive and the Floods Directive, and with the Wildlife Acts, 1976-2000, the National Biodiversity Plan and the aims and objectives of the city'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 as outlined above.

Kindly forward any further information electronically to the following email address:

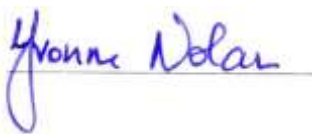
[manager.dau@ahg.gov.ie](mailto:manager.dau@ahg.gov.ie)

Alternatively, hard copy documentation associated with the above can be referred to the DAU at the following address:

The Manager,  
Development Applications Unit,  
Department of Arts, Heritage and the Gaeltacht,  
Newtown Road,  
Wexford  
Y35 AP90

In addition, please acknowledge receipt of these observations by return.

Is mise le meas,



**Yvonne Nolan,**  
**Development Applications Unit**

## Appendix 1

### Notes on the preparation and content of an NIS (applicable also to an NIR)

The term, NIS, is defined in legislation<sup>7</sup>. In general, an NIS, if required, should present the data, information and analysis necessary to reach a definitive determination as to 1) the implications of the plan or project, alone or in combination with other plans and projects, for a European site in view of its conservation objectives, and 2) whether there will be adverse effects on the integrity of a European site. The NIS should be underpinned by best scientific knowledge and objective information, as required in the case of screening for appropriate assessment, and by the precautionary principle.

The following advice is offered in relation to the preparation and content of an NIS:

1. An NIS is a scientific assessment that presents relevant evidence, data and analysis, and focuses on the implications of the plan or project, on its own and in combination with other plans and projects, for the conservation objectives of the relevant European site(s), taking the full scope of these objectives, whether generic or site specific, into account;
2. Examination of the potential effects of the plan or project must be undertaken to identify what European sites, and which of their qualifying interests (SAC), special conservation interests (SPA) or conservation objectives, are potentially at risk. In combination effects must also be taken into account. This is required to determine a 'zone of influence' or 'zone of impact' for the project, if such a concept is used. The 15km distance in existing guidance is an indicative figure only and its application and validity should be examined and justified in each specific case on an ecological or other basis;
3. The scientific basis on which sites and their conservation objectives are included or excluded from assessment and analysis should be presented and justified;
4. The full area or extent of the likely effects of the plan or project should be determined and quantified. Where temporary damage and disturbance will occur, predicted timelines for recovery should be presented;
5. The relevant environmental baseline and trends in European sites should be taken into account, bearing in mind changes and in combination effects which have occurred since site designation;
6. An NIS should be informed by any necessary surveys of habitats and species at the appropriate time(s) of year to identify, describe, evaluate and map their presence within the receiving environment. In all relevant cases, the scientific basis and justifications for categorising or not categorising habitats as Annex I habitats, or priority types, should be presented;
7. An NIS should be informed by any necessary hydrological, hydrogeological or geotechnical investigations to assess impacts on habitat structure and function;
8. Where mitigation measures are required, full details should be included in the project description and drawings, with method statements provided, where necessary. It must be demonstrated that mitigation measures will be delivered in full, and at the appropriate time, at all post-consent stages, and that they will be effective in any specific location or set of conditions. The necessary analysis should be presented to demonstrate how the mitigation measures will avoid or remove the risks of adverse effects on the integrity of European sites that have been identified in an NIS so that the final analysis is undertaken in the context of the predicted residual effects;
9. An NIS should contain, or clearly cross-reference, all the scientific data and analysis on which the assessment is based, and should contain clear and precise findings and conclusions as to the implications of the project, on its own and in combination with other plans and projects, for the conservation objectives and integrity of the relevant European site(s).

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<sup>7</sup> As defined in Section 177T of the Planning and Development Act, 2000 as amended, an NIS means a statement, for the purposes of Article 6 of the Habitats Directive, of the implications of a proposed development, on its own and in combination with other plans and projects, for a European site in view of its conservation objectives. It is required to include a report of a scientific examination of evidence and data, carried out by competent persons to identify and classify any implications for the European site in view of its conservation objectives



**An Roinn**  
**Ealaíon, Oidhreacht agus Gaeltachta**  
**Department of**  
**Arts, Heritage and the Gaeltacht**

11 March 2016

**Our Ref:      FP2015/123**

Director of Services,  
c/o Forward Planning Section  
Galway City Council  
City Hall  
College Road  
Galway  
H91 X4K8

By email to [devplan@galwaycity.ie](mailto:devplan@galwaycity.ie)

**Re:      Draft Galway City Development Plan 2017-2023**

A Chara,

On behalf of the Department of Arts, Heritage and the Gaeltacht, I refer to to Galway City Council's notification of 10/12/15 that a new draft Galway City Development Plan 2017-2023 has been prepared for the functional area of the Council, and is currently on public display. It is noted that the draft plan comprises the main policy document, two maps, and the associated NIR (by consultants, RPS), SEA Environmental Report, and Strategic Flood Risk Assessment. Outlined below are heritage-related observations/recommendations of the Department under the stated heading(s).

**Nature Conservation**

The current observations are made on the basis that the previous advice and recommendations of the Department have been or will be taken into account by the Council. Some background considerations of general relevance to the plan are followed by more specific points of relevance to the content of the plan and its environmental assessments. The term 'plan' is used in a generic sense to mean the draft or final plan.

**Background considerations**

**Context of observations**

The following observations are made by the Department in its role as a prescribed body and an environmental authority under planning legislation. The observations are not exhaustive but are intended to assist the Council in meeting its obligations in relation to natural heritage and biodiversity in the plan area and in the new plan. Particular emphasis is placed on compliance with the Habitats Directive and Birds Directive, including in respect of Articles 6(2), 6(3) and 6(4) of the former, as set out in Part XAB of the Planning and Development Act, 2000 as amended, and in the European Communities (Birds and Natural Habitats) Regulations, 2011. The critical requirements, in this case, are that an appropriate assessment must be carried out by the Council before the plan is made, and that no plan that would have (or perpetuate) adverse effects on the integrity of a European site may be made (unless in exceptional circumstances where the provisions of Article 6(4) of the Habitats Directive, as set out in Sections 177AA-177AC of the Planning and Development Act, 2000 as amended, may be invoked).



### *Duties of a public authority*

In addition to being the competent authority for the appropriate assessment of this plan, the Council should be mindful of its duties as a public authority, under Regulation 27 of the European Communities (Birds and Natural Habitats) Regulations, 2011, to exercise its functions, including consent functions, in compliance with or so as to secure compliance with the requirements of the Habitats Directive and the Birds Directive, and these Regulations.

### *Previous Departmental submissions*

The Council will be aware of the advice and recommendations given by staff of this Department at a meeting with the Council on 02/03/15, as well as the Department's submission of 23/03/15 in respect of this plan at pre-draft/Issues Paper stage. The latter is attached again, for the Council's information and consideration, including in the context of the summary of points attributed to this Department, for example, in Table 2.2 and Appendix 1 of the SEA Environmental Report, and Table 1.1 of the NIR.

The Department has also made numerous detailed submissions to the Council, and/or its consultants, over many years in relation to the existing City Development Plan and variations to the plan, and their associated appropriate assessments, and Local Area Plans in the plan area, including that for Ardaun. In addition, the Department has made submissions to the Council (and/or its consultants) and to other authorities that are relevant or related to some specific development objectives of particular concern within the current draft plan, including, for example, the proposed N6 Galway City Transport Project, the proposed Galway Harbour Extension, the proposed Galway City to Barna Greenway, the proposed Galway City to Oughterard Greenway, the proposed Dublin to Galway Greenway, the new Salthill (Blackrock to caravan park) coastal protection scheme and walkway, and the Sailin to Silverstrand coastal protection scheme and walkway. As far as the Department is aware, with the exception of the Galway Harbour Extension project, which is currently under consideration by An Bord Pleanála in the context of the derogation procedures of Article 6(4) of the Habitats Directive, no appropriate assessment has been carried out, as yet, for any of these projects to determine their implications for the conservation objectives and integrity of European sites that occur within and adjacent to the plan area.

The recent ruling of the Court of Justice of the European Union in respect of the 'Grüne Liga Sachsen and Others' case, C-388/14, should be noted in relation to the construction of damaging projects that have been authorised in SACs or SPAs, as should other such rulings concerned with the implementation of the Habitats and Birds Directives. Case C-258/11 (Sweetman and others) is also relevant to the plan area, and to matters of interpretation of Article 6 of the Habitats Directive in the context of appropriate assessment.

### *The appropriate assessment*

It has been established by the Council that an appropriate assessment is required, and an NIR has been prepared for the current draft plan by consultants, RPS. The appropriate assessment has yet to be carried out and this must occur before the plan is made. Among other things, the Council must take account of the NIR when this assessment is carried out, and the NIR should relate to the final iteration of the plan, including any amendments or material alterations of the current draft plan.

The Department notes various references and text in plan documentation, including the NIR, which suggest that the terms 'NIR' and 'appropriate assessment' are synonymous, and that the latter has been carried out<sup>1</sup>. As the Council will be aware, the appropriate assessment is a pending step in the plan-making process. When it is carried out, it cannot have lacunae, and must contain complete, precise and definitive findings and conclusions with regard to the implications of the plan for the conservation objectives and integrity of a European site or sites. In the event that data gaps

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<sup>1</sup> For example, in the 'Legislative Background' section of the Preface (page 6), "*In accordance with European and national legislation, Galway City Council carried out a Strategic Environmental Assessment, an Appropriate Assessment and a Strategic Flood Risk Assessment*", and NIR Section 1, "This report provides a record of the Appropriate Assessment process for the Draft Galway City Development Plan (GCDP) for 2017-2023 in line with the requirements of Article 6(3) of the EU Habitats Directive (Directive 92/43/EEC)", and NIR Section 5: 'AA conclusion'.

and incomplete analysis in the current NIR (as set out below) or changes in the plan are addressed in the Manager's Report or in an addendum to the NIR, the Council should take account of these, in addition to the current NIR, when carrying out the appropriate assessment. Case law of the Court of Justice of the European Union, including as listed above, should be taken into account in relation to the requirements and tests of the appropriate assessment.

### *Flooding*

The Strategic Flood Risk Assessment is noted. This was prepared prior to the extreme winter flooding of 2015/16. In the event that this requires revision, or new advice and recommendations come from the OPW or from other flood risk working groups, this should be taken into account, and reflected in objectives and recommendations of the plan, and subjected to any environmental assessments necessary.

### Specific considerations

#### *Plan content*

The main policy document comprises a strategic vision, seven strategic goals, a core strategy, and a series of policies and specific objectives for each chapter. The Department estimates that there are 539 policy elements and specific objectives within the plan (as per Table 7.1 of the SEA Environmental Report). Maps A and B detail the land use zoning objectives.

Chapter 4 of the plan covers "Natural heritage, recreation and amenity", and sets out a strategy and series of policies and specific objectives, including policies to conserve, protect and enhance nature conservation sites, habitats, species, and ecological networks. These protective policies are welcomed and are wide-ranging in their scope. However, many policies and objectives in this chapter include references to the use and management of ecological sites, ecological networks and green areas for amenity and recreational uses, and, among other things, make commitments to develop cycleways, walkways and other facilities in these areas, and to develop and increase sports and recreational activities in these areas. A key concern in this, including as shown in Map A, is that no distinction is made between European sites and other green or blue (marine) areas. Many of these future projects and uses are within or cannot avoid European sites, including some of the projects listed above which have not yet been subject to an appropriate assessment. In these cases, and as outlined below, the implications for the conservation objectives of the European sites in question have not been examined or adequately mitigated, and it cannot be excluded that adverse effects on the integrity of a European site will result.

In addition to Chapter 4, many of the policies and objectives in other chapters of the plan support or promote development, including changes in land use or in the likely intensity of land use. Future development that will or could result from these objectives will vary in its nature, scale and geographical specificity, as is normal in a development plan. In some cases, however, the developments and their locations are specific, and European sites will be impacted, or cannot be avoided. A plan should aim to manage the competing aspirations for development on the one hand, and ecological and environmental conservation and enhancement on the other; all aspects of the plan must comply with Article 6 of the Habitats Directive. A plan should also aim to identify areas where resources, advice and funding may need to be made available to assist in achieving certain development objectives, particularly when considering suitable project sites or options, when assessments are required, and when Council or community projects are involved.

As currently presented, and taking the observations on the NIR below into account, many policies and objectives in the plan require further assessment and analysis, and mitigation at the plan level needs to be developed and specified. Plan content and maps also need to be revised. Such mitigation might include ensuring that policies and objectives with impacts on European sites are omitted, particularly from maps, and that the commitments instead are to explore future options to deliver the particular development objective. The Department has previously pointed out, on a number of occasions, the example of the mapped cycleways and walkways in the current draft plan and existing plan, as most of the routes shown are within European sites. Wording might also be revised or strengthened so that, for example, 'sustainable' is defined in part to mean that adverse effects on the conservation objectives and integrity of European sites (and also NHAs) will not

result. The widely used approach of requiring project-stage assessment and compliance is not promoted as appropriate mitigation by this Department, but, together with other revisions of the plan, may assist in allowing the plan to proceed without reference to Article 6(4) of the Habitats Directive.

The Department notes the following in the preface of the plan: *“The Natura Impact Report (NIR) has been produced to support the Appropriate Assessment of the draft Plan. The NIR finds that the draft Plan has the potential to result in impacts to the integrity of European Sites, if unmitigated. The risks to the safeguarding and integrity of the qualifying interest and conservation objectives of the European Sites have been addressed by the inclusion of mitigation measures that will prioritise the avoidance of impacts in the first place and mitigate impacts where these cannot be avoided. Having incorporated mitigation measures, it is considered that the draft Plan will not have a significant adverse effect on the integrity of European Sites.”* In view of the fact that most of the policies and objectives have not been mitigated, but rely on the protective policies and objectives in the plan, or on the application of legislation at project level, the Council should further consider the conclusions as expressed above, and whether clear, precise and definitive conclusions of the appropriate assessment may be reached.

The following are among some of the plan policies and objectives that pose particular risks to European sites in view of their conservation objectives, and which 1) have not been adequately assessed and mitigated at plan level, 2) have not been subject to appropriate assessment, or 3) will have adverse effects on the integrity of one or more than one European site if it proceeds. The development objectives are supported by a variety of policies and objectives in different plan chapters:

- *Policy 3.3: Continue to progress a sustainable transport solution for the city through the implementation of measures included in the Integrated Transport Management Programme (ITMP)*
  - The Department understands that the ITMP is in preparation and is being assessed. In the absence of the detail of the ITMP and its NIS (or NIR), this policy should be omitted or reworded, or plan preparation should await the availability of the ITMP and its NIS/NIR, and the appropriate assessment should cover both elements in combination. It is noted that the ITMP and N6 GCTP initiatives, which are interrelated, include a new road that traverses SAC areas and cycleways that are to be developed within European sites, meaning that it cannot be excluded that each component on its own, and in combination with other plans and projects, will have adverse effects on the integrity of a European site.
- *Specific Objective 3.9: Prepare an Integrated Transportation Management Programme (ITMP) for the city in conjunction with the NTA, Galway County Council and other relevant state agencies*
  - Comments as above.
- *Provide cycleways along the following routes: From the City Centre to the eastern city boundary having regard to the Galway to Dublin Cycleway; From the City Centre to Bearna; From the City Centre to Moycullen*
  - These cycleways, on their own in the plan area or as part of the overall cycleway routes, cannot avoid European sites. Appropriate mitigation, which is currently lacking, might include rewording to indicate that suitable routes for such cycleways will be explored, taking ecological constraints, the likely effects on European sites in view of their conservation objectives, and in combination effects of other plans and projects into account. In the absence of changes or more appropriate mitigation, it cannot be excluded that adverse effects on the integrity of a European site would result from this and similar objectives.
- *Construct a new pedestrian and cycle bridge on the piers of the Old Clifden Railway Line from Waterside to NUIG*
  - This objective is specific as to the project type and location, and the bridge will traverse Lough Corrib cSAC, as will the new N6 GCTP further upstream. The effects of this

project have not been assessed, and appropriate mitigation is currently lacking. As above, this might include rewording to indicate that a suitable option for a bridge will be explored, taking ecological constraints, the likely effects on European sites in view of their conservation objectives, and in combination effects of other plans and projects into account. In the absence of changes or more appropriate mitigation, it cannot be excluded that adverse effects on the integrity of a European site would result from this objective.

- *Specific Objectives 9.15: Complete the Sallin to Silverstrand Coastal Protection Scheme and walkway from Blackrock to Silverstrand*
  - The Department understands that an NIS is required for the foreshore component of this development in connection with the foreshore licence. The development is located within two European sites, and will have direct and permanent effects, and possible indirect and in combination effects, on the conservation objectives of these sites. Some of these conservation objectives may also be adversely affected in the case of the Galway Harbour Extension project – see below.
- *Policy 3.8: Galway Port and Other Transport Facilities – Support the future viability of Galway Port including proposals for development and extension of port facilities and an extension of the rail line to the port*
  - The Department understands that, if the Galway Harbour Extension Project proceeds in its current form, it will have adverse effects on the integrity of at least one European site that require all necessary compensation measures to be taken to ensure the overall coherence of the Natura 2000 network is protected. The proposed development is currently under consideration by An Bord Pleanála.
- *Policy 5.1: Enterprise – Support the sustainable development and extension to Galway Harbour subject to environment, visual, economic viability and transportation requirements*
  - Comments as above.

Of the land use zonings, in addition to concerns raised above, the Council should review and revise the zoning of one part of an SAC as ‘residential’ as part of a ‘village envelope’ in the Menlough area.

Other points noted by the Department are as follows:

- Screening for appropriate assessment, and appropriate assessment requirements, where necessary, will arise in relation to the Local Area Plans and other area plans that are to be prepared or completed, as per the policies and objectives in the current plan. SEA obligations will also arise.
- Caution should be exercised in supporting other plans and strategies, or in giving effect to their recommendations for development and land uses, if such plans or strategies cannot demonstrate their own compliance with the Habitats Directive, or if they are not subject to appropriate assessment as part of the current land use plan.
- Regarding the policies for a 10m buffer beside the River Corrib, it should be noted that, while this distance criterion is welcomed, it may not suffice as a protective measure, and all plans or projects beside the river, and infrastructural maintenance works, will require screening for appropriate assessment, including in order to establish planning requirements.
- Appropriate assessment requirements are likely to arise in relation to the master plan for Lough Atalia and Renmore Lagoon, which is to include walkways and the development of water-based tourism. Both areas support Annex I priority habitat and are closely linked to the Galway Harbour Extension project – see above.

#### *NIR*

The process of preparing the NIR will have influenced the drafting of the main policy document in a positive way, and this is welcomed. Within the NIR, sites within 15km of the plan area, and their conservation objectives, are identified. Potential impacts on European sites are listed in NIR Table

3.5 and in Appendix C. In Table 3.5, these are generic considerations that are not specifically linked to the policies and objectives of the plan, including the land use zonings. In Appendix C, the potential for negative effects is identified with respect to the specific policies and objectives. Despite being generalized, a range of realistic likely negative effects on sites and their conservation objectives are identified in column 3 of this table. Some of the existing threats and pressures on European sites are further detailed in NIR Section 3.3.7 which, among other things, states as follows: *“The coastal area of Galway City is a popular destination for leisure and port activities in the County. Leisure activities and developments along the coastline of Galway City are likely to place increasing pressure on the ecology of coastal areas. Cycle routes, road developments and leisure facilities in close proximity to the coast line add to this pressure, with potential impacts to coastal/marine European sites including direct habitat loss, disturbance or fragmentation; reduction in water quality; destruction of wetlands; bird disturbance; and the risk of introducing invasive species.”* These adverse effects are not further assessed and analysed in the NIR in the context of the residual effects after mitigation.

Adverse effects of the plan are identified with respect to Galway Bay Complex cSAC, Lough Corrib cSAC, Inner Galway Bay SPA, and Lough Corrib SPA, but there are few specifics about which of the sites and which of their conservation objectives may be affected. Potential cumulative or in combination effects are identified on NIR page 34, and include only two land use plans and some programmes associated with the implementation of the Water Framework Directive. No projects are listed. An NIR must consider the likely effects of a plan or project in combination with other plans and projects; some examples above outline the interconnectedness of plan elements with other plans and projects. This is particularly important in the case of the Galway Harbour Extension, the ITMP and N6 GCTP, and the many coastal and other walkways and cycleways, and policies and objectives for increased amenity and recreational uses within European sites or which are unlikely to be able to avoid such sites. This includes the Council's developments and proposals as well as those of other bodies, authorities and private individuals.

The approach to mitigation in the NIR, as detailed in Appendix C, is to list and rely on policies and objectives which are generally, but not always, protective. Some of these policies and objectives allow for or promote development and uses, including amenity and recreation uses and associated infrastructure, or other specified or potential developments, or are not clearly protective or mitigatory, e.g. policy 4(1), 4.1(1), 4.1(4), 4.2(10), 4.3(3), 4.3(9), 4.3(13), 4.3(14), 4.3(17), 4.6.2(5), 5.1(16), and 9.3(10). Policy 5.1, for example, supports the sustainable development and extension to Galway Harbour – see above. It is not shown in the NIR how it was determined that reliance on protective policies will suffice, whether at the specific project level or when assessing the cumulative or in combination effects. It remains that it cannot be excluded that many policies and objectives in the plan, as currently worded and set out, will have adverse effects on the conservation objectives and integrity of European sites.

A short section that purports to assess the mitigation measures is included on NIR page 42. This assessment is not of the residual effects, following the implementation or incorporation of mitigation, and there is no examination, for example, of whether or not the adverse effects identified in Table 3.5 (above) are addressed adequately or at all. Plan-level mitigation must be demonstrated to be effective in addressing and ameliorating the full range of any adverse effects on the conservation objectives and integrity of European sites that would arise from the plan, or that already exist and may be perpetuated or worsened by the implementation of the plan. The conclusion that follows in Section 5 is not supported by the assessment and analysis in preceding sections of the NIR.

#### *SEA Environmental Report*

The SEA Environmental Report lists all the policies and objectives of the plan in Table 7.1 (38 pages), and evaluates these relative to the strategic environmental objectives (SEOs) for ‘biodiversity, flora and fauna’, among other things. This includes all c. 539 policies and specific objectives, or components of these. The potential effects of the policies and objectives are assessed in a matrix. In the case of the SEOs for biodiversity, flora and fauna, which should generally mirror the situation for European sites and the NIR, the assessment finds there will be no

negative effects at all. This is anomalous in that it does not match the analysis of the NIR in general or more specifically in Appendix C, and the Department's own knowledge of some critical concerns in the plan area. Instead of any negative effects, the matrix lists an estimated 212 'unknown effects' arising from policies and objectives. This must be interpreted in terms of uncertainty, and the application of the precautionary principle should mean further assessment and analysis, or a finding of a negative effect. Many of these unknown effects arise in the case of policies and objectives where it cannot be excluded that the conservation objectives and integrity of European sites may be affected. This matrix requires further assessment and analysis to reach more robust and precise conclusions, and so that the findings of the SEA can reflect or integrate more appropriately with those of the NIR and the appropriate assessment which has yet to be carried out.

The plan area is unusual in having been surveyed ecologically in detail in connection with the N6 GCTP in particular, but also the former N6 GCOB, and the Galway City Habitat Inventory (2005). Information on species is also available. The habitat and species data collected in conjunction with the N6 GCTP will be available to the Council in a format that can be used in GIS. Habitat and species datasets associated with the site specific conservation objectives for two European sites of concern are also available. There is no clear indication that any of these data have been used in informing the plan and its environmental assessments.

The Council should be aware that areas of Annex I habitats (under the Habitats Directive) have been zoned for development and land uses within the plan area. Data on such habitats within the plan area are available as outlined above. Losses of such habitats outside nature conservation sites have occurred in the plan area as a result of development and agricultural reclamation since the dates for the implementation of the EIA Directive, Habitats and Birds Directives, and Environmental Liability Directive in Ireland. Further losses of such habitats, and of the habitats of protected species, through land use zonings and arising from projects supported or promoted by the plan should be given due consideration in the SEA, including in the context of whether 'environmental damage'<sup>2</sup> could be caused.

Kindly forward any further information electronically to the following email address:

[manager.dau@ahg.gov.ie](mailto:manager.dau@ahg.gov.ie)

Alternatively, hard copy documentation associated with the above can be referred to the DAU at the following address:

The Manager,  
Development Applications Unit,  
Department of Arts, Heritage and the Gaeltacht,  
Newtown Road,  
Wexford  
Y35 AP90

In addition, please acknowledge receipt of these observations by return.

Is mise le meas,



**Yvonne Nolan,  
Development Applications Unit**

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<sup>2</sup> As defined in the Environmental Liability Directive (2004/35/EC) and European Communities (Environmental Liability) Regulations, 2008





**An Roinn**  
***Ealaíon, Oidhreachta agus Gaeltachta***  
**Department of**  
***Arts, Heritage and the Gaeltacht***

23 March 2015

**Our Ref:      FP2015/016**

Director of Services,  
Forward Planning  
Galway City Council  
City Hall  
Galway

**Re:      Issues Paper and SEA scoping for draft Galway City Development Plan 2017-2023**

A Chara,

The Department refers to Galway City Council's notice of its intention to review the existing Galway City Development Plan 2011-2017 and make a new draft Galway City Development Plan for 2017-2023. Reference is also made to the Council's request for submissions or observations on the scope and level of detail of the information to be included in the [SEA] environmental report.

The following observations address the plan and its associated environmental assessments, and are intended to assist the Council in meeting its obligations in relation to natural heritage and biodiversity in the new plan. They expand on the points made at the introductory meeting with the Council on 02/03/15 and cover, in broad and more specific terms, the environmental assessments required, the content of the plan, available data and information sources, ecological and natural heritage features in the plan area, the Natura Impact Report (NIR), and the scope of the SEA. There is particular emphasis on compliance with the Habitats Directive, including in respect of Articles 6(2), 6(3) and 6(4), as set out in Irish legislation (i.e. Part XAB of the Planning and Development Act, 2000 as amended).

The Department has also indicated its availability to meet with the Council, in particular to discuss any difficulties that arise in the preparation of the NIR for the plan.

**Environmental assessments required**

The Department notes that the Council has confirmed that the following environmental assessments are required for the new draft plan:

1. SEA – the plan is currently at SEA scoping stage;
2. Appropriate assessment, including the preparation of a Natura Impact Report<sup>1</sup> (NIR);

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<sup>1</sup> According to Section 177T of the Planning and Development Act, 2000 as amended, an NIR means a statement for the purposes of Article 6 of the Habitats Directive, of the implications of a Land use plan, on its own or in combination with other plans or projects, for one or more than one European site in view of the conservation objectives of the site or sites. It is required to include a report of a scientific examination of evidence and data, carried out by competent persons to identify

### 3. SFRA (strategic flood risk assessment).

Relevant legislation and guidance should be followed in relation to these assessments. In this regard, Part XAB of the Planning and Development Act, 2000, as amended, sets out the terminology, stages and tests of the appropriate assessment process. It should be noted that the assessment process is an ‘appropriate assessment’, not a Habitats Directive Assessment, and the report or statement of the likely significant effects (in the case of a plan) is an NIR.

While existing guidance on appropriate assessment should be followed in general terms, there should be due regard to changes in the interpretation and application of directives and legislation arising from case law of the Court of Justice of the European Union (CJEU), and of the Irish courts, particularly in the case of Article 6 of the Habitats Directive.

#### **Plan content**

##### *Natural heritage, recreation and amenity*

As outlined below, the plan area contains and extends close to a number of nature conservation sites<sup>2</sup>, including legally protected European sites and NHAs. Legal protection derives primarily from planning legislation and the European Communities (Birds and Natural Habitats) Regulations, 2011, in the case of European sites, and from planning legislation and the Wildlife Acts, 1976-2000, in the case of NHAs.

The plan area also supports other sites, habitats and species that form ecological corridors, networks and stepping stones, and which, in some cases, have been identified by the Council as local biodiversity areas. Of the species occurring in the plan area, some are strictly legally protected as Annex IV species under the European Communities (Birds and Natural Habitats) Regulations, 2011, while other species are protected under the Wildlife Acts, 1976-2000.

The Department recommends that the natural heritage section of the plan should include clear and specific reference to European sites, NHAs, protected species, other ecological sites, and ecological corridors and stepping stones in separate sections or sub-sections. Information should be presented to reflect the hierarchy of international to national and local significance of features. The legal obligations with respect to their conservation, protection and, in some cases, restoration, should also be reflected in the text of the plan. In addition, nature conservation sites should be given their formal site names and site codes, and should be mapped in the plan.

A clear distinction needs to be made in the plan between nature conservation sites, which are legally protected, and facilities and areas for recreation and amenity, whether active or passive, and including greenways, walkways, parks and other green areas. This distinction should also be clear in relation to green infrastructure, and in relation to areas for climate change adaptation or flood risk management. While such integrated uses may be compatible with the conservation of sites, and with the conservation objectives of European sites in particular, this may not always be the case. All such proposals will require assessment at plan level. If uses or zonings of European sites are not clearly constrained by detailed and specific plan-level mitigation, it would be difficult to exclude the possibility that adverse effects could result. An example of this would be the indication of a cycleway or greenway route in or adjacent to a European site; such a proposal could result in habitat loss, fragmentation or deterioration within the site, or could lead to new or additional human use and associated disturbance which could cause displacement and a reduction in the area of habitat available to a species, or a barrier to its movement.

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and classify any implications for one or more than one European site in view of the conservation objectives of the site or sites.

<sup>2</sup> Defined in Section 212(5) of the Planning and Development Act, 2000 as amended

### *Nature conservation objectives*

Section 10(c) and 10(ca) of the Planning and Development Act, 2000 as amended, together with the Planning and Development Regulations, 2001-2012, stipulate that a plan must contain, among other things, objectives for the conservation and protection of the environment including, in particular:

1. Natural heritage;
2. Conservation and protection of European sites and NHAs;
3. Encouragement of the management of features of the landscape, such as traditional field boundaries, important for the ecological coherence of the Natura 2000 network and essential for the migration, dispersal and genetic exchange of wild species. *Note that Article 10 of the Habitats Directive defines the features as those which, by virtue of their linear and continuous structure (such as rivers with their banks or the traditional systems for marking field boundaries) or their function as stepping stones (such as ponds or small woods) are essential for the migration, dispersal and genetic exchange of wild species.*

The wording of objectives in the natural heritage section of the plan should reflect or encompass key obligations and requirements as set out in the relevant legislation in relation to the various ecological or natural heritage features. In this regard, the changes in legislation in Ireland that have occurred since the last plan was adopted are of particular importance in the context of European sites and the Natura 2000 network. The obligations placed on public authorities, including local authorities, to exercise their functions, including consent functions, in compliance with, or so as to secure compliance with, the requirements of the Habitats Directive and the Birds Directive, and with the European Communities (Birds and Natural Habitats) Regulations, 2011, are stressed, and should be reflected in the content, aims and objectives of the plan.

The text and objectives of the plan should reflect the general obligations:

- a) To take appropriate steps to avoid, in a European site, the deterioration of natural habitats and the habitats of species as well as the disturbance of the species for which the site has been designated insofar as such disturbance could be significant in relation to the objectives of the Habitats Directive. These obligations, deriving from Article 6(2) of the directive, are placed on the competent authority under Section 177S(1) of the Planning and Development Act, 2000 as amended, and on public authorities in general under Regulation 27(3) of the European Communities (Birds and Natural Habitats) Regulations, 2011;
- b) To ensure that screening for appropriate assessment and appropriate assessment, if necessary, are carried out by the competent authority for plans and projects within or impacting the plan area (Sections 177U and 177V, respectively, of the Planning and Development Act, 2000 as amended), or by the public authority under Regulation 42 of the European Communities (Birds and Natural Habitats) Regulations, 2011;
- c) To maintain or restore the favourable conservation condition of the natural habitats and species for which the sites have been designated in line with the conservation objectives. *Note that, in the case of Galway Bay Complex cSAC (site code 000268), for example, the conservation objectives are **to restore** five of the qualifying interests (four Annex I habitats and one Annex II species) to favourable conservation condition;*
- d) To ensure there will be no adverse effects on the integrity of a European site (except in rare circumstances where derogations may be pursued).

### *Other chapters and development objectives*

Aside from the natural heritage chapter of the plan, and its protective objectives, potential significant effects on ecological or natural heritage features may arise from or be perpetuated by objectives of the plan under all the main thematic areas. The over-arching obligation to avoid potential adverse effects on the integrity of a European site arising from the plan, on its own and in combination with other plans and projects, must be reflected in all relevant plan objectives.

In the NIR and the plan, it may suffice, in some limited cases, to examine objectives and show that future projects or lower level plans will be captured, and will be subject to appropriate assessment at a later stage. In other cases, however, development objectives may be such that European sites or potential conflicts with their conservation objectives cannot be avoided, even if specific locations or project details are not known. Likely examples are objectives that would support the expansion of the harbour and the development of a new road that would traverse the city from east to west.

Where it is clear that certain commitments in the plan will result in, or cannot avoid, impacts on European sites, these must be assessed at plan level in the NIR. It must also be demonstrated how mitigation will ensure that no adverse effects on site integrity will result. In the rare circumstances where adverse effects are likely to be unavoidable, the plan level mitigation should demonstrate how future projects and the potential need for compensation of the Natura 2000 network will be managed and assessed through pre-planning and planning stages. The plan should also set out support for making the case that imperative reasons of overriding public interest exist for a project (or plan) to be developed where it would have adverse effects on the integrity of a European site. Any such examples should be guided by the European Commission's guidance on the application of Article 6(4) of the Habitats Directive<sup>3</sup> – see below.

### **Implications for nature conservation**

The Department is of the view that there is potential for the plan, or services or resources on which the plan area is reliant, to have or perpetuate significant effects on European sites in view of their conservation objectives. Among other things, these may arise from the following: water supply and abstraction; wastewater and discharges; existing and new infrastructure; residential and other development; flood alleviation and prevention; coastal protection measures; and amenity and recreation provision. In the case of the latter, for example, the commitments in the plan in relation to the development of walkways, cycleways, greenways or other amenity facilities in or adjacent to European sites, including indicative routes along the Corrib and on the coast, need to be further explored and assessed at plan level prior to their inclusion in the plan.

Based on information currently available, it is also considered that two projects in the plan and plan area may need to invoke the derogation procedures of Sections 177AA-177AC of the Planning and Development Act, 2000 as amended, within the timeframe of the plan. These are the Galway Harbour Expansion Project (currently with An Bord Pleanála) and the N6 Galway City Transport Project.

### **Data/information sources**

The National Parks and Wildlife Service website ([www.npws.ie](http://www.npws.ie)) is a key source of data, information and publications, including GIS datasets, on nature conservation sites<sup>4</sup> and biodiversity issues of relevance to the plan and its associated environmental assessments. This includes site boundaries, site synopses, lists of qualifying interests (SACs) and special conservation interests (SPAs), conservation objectives (European sites – see also below), features of interest (NHAs), and dates of site designation. GIS datasets are available for download for certain habitats and species arising from various sources, including national surveys<sup>5</sup>. Other NPWS-held data on habitats and species may be requested by submitting a 'Data Request Form'<sup>6</sup>.

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<sup>3</sup> European Commission (2007) *Guidance document on Article 6(4) of the 'Habitats Directive' 92/43/EEC. Clarification of the concepts of: Alternative Solutions, Imperative Reasons of Overriding Public Interest, Compensatory Measures, Overall Coherence, Opinion of the Commission*

<sup>4</sup> Special Areas of Conservation (SACs, currently known as candidate sites but fully legally protected); Special Protection Areas (SPAs); Natural Heritage Areas (NHAs); and also proposed Natural Heritage Areas (pNHAs)

<sup>5</sup> <http://www.npws.ie/maps-and-data/habitat-and-species-data>

<sup>6</sup> <http://www.npws.ie/maps-and-data/request-data>

Site-specific conservation objectives, and associated backing documents and GIS datasets, are available for download in the case of some European sites, including two key sites in the plan area, Galway Bay Complex cSAC (site code 000268) and Inner Galway Bay SPA (site code 004031). The limitations of the data, however, should be noted as outlined, for example, under 'Notes/Guidelines'<sup>7</sup>. For all other European sites, generic conservation objectives are available.

The Council is advised that site boundaries of nature conservation sites may be subject to change, and that additional information about sites, habitats and species will become available over time. It is recommended that the most up-to-date data and information available from the NPWS website should be accessed and used at each successive stage of the plan-making process.

Data on ecological features in or near the plan area are available from various other sources including:

- Other organisations, e.g. National Biodiversity Data Centre, BirdWatch Ireland, etc.;
- Galway City Habitat Inventory (2005);
- Existing Galway City Development Plan and its associated environmental assessments;
- EISs and other reports for projects in the study area and surrounds;
- Extensive surveys of much of the plan area carried out in 2013-2014 in connection with the new N6 Galway City Transport Project. The resulting data and information should be available to the Council.

Data and information on the environmental baseline and trends are also available, e.g. in the case of water quality.

### **Key ecological/natural heritage features**

The plan area contains the following:

- European sites, including parts of Galway Bay Complex cSAC (site code 000268), Lough Corrib cSAC (site code 000297) and Inner Galway Bay SPA (site code 004031). Lough Corrib SPA (site code 004042) extends close to the plan area. These are sites of international importance for nature conservation and form part of Ireland's contribution to the Natura 2000 network within the European Union;
- Natural Heritage Areas (NHA), including parts of Moycullen Bogs NHA (site code 002364). These are sites of national importance for nature conservation established under the Wildlife (Amendment) Act, 2000, and legally protected under the Wildlife Acts, 1976-2000;
- Lough Rusheen Wildfowl Sanctuary (see S.I. 268 of 1982);
- Proposed Natural Heritage Areas (pNHAs). These are undesignated sites that are/were known to be of importance for biodiversity but have not yet been fully evaluated. Adopting a precautionary approach, sites not covered by other nature conservation designations should be given recognition in land use plans;
- Annex IV (Habitats Directive) species of flora and fauna, and their key habitats (i.e. breeding sites and resting places), which are strictly protected wherever they occur, whether inside or outside the above sites, e.g. Otter and bats;
- Other species of flora and fauna and their key habitats which are protected under the Wildlife Acts, 1976-2000, wherever they occur, e.g. Badger and Slender Cotton Grass (*Eriophorum gracile*);

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<sup>7</sup> Including: 4. Please note that the maps included in this document do not necessarily show the entire extent of the habitats and species for which the site is listed. This should be borne in mind when appropriate assessments are being carried out. 5. When using these objectives, it is essential that the relevant backing/supporting documents are consulted, particularly where instructed in the targets or notes for a particular attribute

- ‘Protected species and natural habitats’ as defined in the Environmental Liability Directive (2004/35/EC) and European Communities (Environmental Liability) Regulations, 2008, including:
  - Birds Directive – Annex I species and other regularly occurring migratory species, and their habitats (wherever they occur)
  - Habitats Directive – Annex I habitats, Annex II species and their habitats, and Annex IV species and their breeding sites and resting places (wherever they occur)
- Stepping stones and ecological corridors including nature conservation sites (other than European sites), habitat areas and species’ locations covered by Article 10 of the Habitats Directive.

## **NIR**

One of the key benefits of the environmental assessment procedures is that they influence and inform the plan during its preparation, and integrate ecological and other environmental considerations with the vision, goals and objectives for the development of the city. However, the implications of the plan for European sites in view of their conservation objectives must also be assessed. The NIR is the resulting statement of the effects for the purposes of Article 6 of the Habitats Directive (as per planning legislation; see footnote 1), and its findings must be taken into account when the appropriate assessment is carried out and a determination is made as to whether or not the land use plan would adversely affect the integrity of a European site. Case law of the CJEU (Case C-258/11, *Sweetman and others*) has established that the appropriate assessment cannot have lacunae and must contain complete, precise and definitive findings and conclusions capable of removing all reasonable scientific doubt as to the effects of a project on a European site; these standards should also underpin the NIR.

Based on the Department’s experience of reviewing many NIRs, the following advice is offered in relation to their preparation and content:

1. The need for an NIR follows on from screening which is carried out by the competent authority; the NIR should not contain the screening exercise (except, perhaps, as an appendix);
2. The NIR should be a scientific assessment that presents relevant evidence, data and analysis, not just commentary, lists, tables, etc.;
3. Best scientific knowledge and objective information, which are specified in legislation in relation to screening, are also required to prepare an NIR;
4. The relevant environmental baseline and trends should be taken into account, bearing in mind changes and in combination effects which have occurred since site designation;
5. If an NIR is required, it should cover the entire plan, not just parts of the plan;
6. The NIR should focus on the likely significant effects of the plan on European sites in view of their conservation objectives, whether generic or site specific. Of particular importance in the case of the latter, are the attributes and targets, and whether the objective is to maintain or restore the favourable conservation condition;
7. Examination of the potential or existing effects of the plan, and the resources and services on which it is reliant, must be undertaken to identify what European sites, and which of their conservation objectives, are potentially at risk. In combination effects must also be taken into account. This examination is also required to determine a ‘zone of influence’ or ‘zone of impact’ of the plan area, if this concept is used. It should be noted that the 15km distance for plans in existing guidance is an indicative figure and its application and validity should be examined and justified in each specific case;
8. The scientific basis on which sites and conservation objectives are included or excluded from assessment and analysis should be presented;



9. The scientific basis on which plan objectives and other plan elements are included or excluded from further assessment and analysis should be presented. This should apply to all parts of the plan and all objectives;
10. Where plan level mitigation measures are put forward, the necessary analysis should be presented to demonstrate that these will be effective in avoiding or removing risks of adverse effects on the integrity of European sites, or in managing future proposals where adverse effects may be unavoidable;
11. The NIR and plan level mitigation measures should go beyond altering the wording of objectives to say that future assessment is required;
12. All parts of the plan, including zoning and land use designations, and associated maps and strategies, should be subject to assessment and should be compliant with the Habitats Directive. In the case of non-statutory strategies or other reports, these may only be incorporated into the plan, or given effect by the plan, if demonstrated to be compliant with Article 6 on their own, and in combination with the plan itself, and with other plans and projects;
13. The NIR should reach a clear and precise conclusion as to the implications of the plan for the conservation objectives of the relevant European sites.

### **Scope of SEA**

The Biodiversity, Flora and Fauna section of the SEA should be undertaken by or in conjunction with a suitably qualified ecologist(s), and other specialists as necessary, and in conjunction with the NIR to ensure full integration of biodiversity issues and concerns, particularly in relation to nature conservation sites, protected species, and ecological corridors and stepping stones – see above. The EPA's *Integrated Biodiversity Impact Assessment* best practice guidance is of particular 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. For biodiversity, flora and fauna, the scope of the SEA should include:

- All nature conservation sites;
- Other ecological sites, including local biodiversity areas;
- Natural and semi-natural habitats, and the habitats of protected species, including information on habitats in the plan area derived from surveys (including NPWS-held datasets on habitats/habitat complexes and conservation objective supporting data, and the Council's habitat inventory within the plan area, and data from surveys associated with the N6 Galway City Transport Project<sup>8</sup>), and habitat indicator mapping (available from Teagasc/EPA);
- Species of wild flora and fauna, including rare and protected species and their habitats (including data on rare and protected species from NPWS, the National Biodiversity Data Centre, BirdWatch Ireland, etc.);
- All watercourses, surface water bodies and associated wetlands, including floodplains and flood risk areas;
- Other sites of high biodiversity value or ecological importance, e.g. Galway City's network of local biodiversity areas;
- Ecological networks and corridors, and stepping stones;
- Ecological mitigation/compensation measures or sites arising from existing projects, e.g. habitat recreation areas or underpasses from road projects.

In general, no areas should be identified or targeted for development (e.g. through land use zoning, re-zoning or other strategies) without basic information on the ecological sensitivities of the lands in

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<sup>8</sup> [http://www.n6galwaycity.ie/wp-content/uploads/2014/12/GCOB-SK-R-067\\_-Ecological-Const.Study-A2-Size-DRAFT-Website-Version.pdf](http://www.n6galwaycity.ie/wp-content/uploads/2014/12/GCOB-SK-R-067_-Ecological-Const.Study-A2-Size-DRAFT-Website-Version.pdf)

question, including a habitat map, i.e. the precautionary principle should apply and no areas should be committed to development in the absence of basic information on ecological constraints.

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 Directive, the Birds Directive, the Water Framework Directive and the Floods Directive, and with the Wildlife Acts, 1976-2000, the National Biodiversity Plan and the aims and objectives of the city'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 as outlined above.

Archaeological and architectural heritage observations, if any, will follow in due course.

Kindly forward any further information electronically to the following email address:

[manager.dau@ahg.gov.ie](mailto:manager.dau@ahg.gov.ie)

Alternatively, hard copy documentation associated with the above can be referred to the DAU at the following address:

The Manager,  
Development Applications Unit,  
Department of Arts, Heritage and the Gaeltacht,  
Newtown Road,  
Wexford

In addition, please acknowledge receipt of these observations by return.

Is mise le meas,



**Yvonne Nolan,**  
**Development Applications Unit**  
**Tel: (053) 911 7382**

## Appendix I B: Statutory Consultation Submissions



Mr Jim Molloy  
Senior Executive Engineer  
Galway Transportation Unit  
Galway City Council  
College Road  
Galway

11<sup>th</sup> July 2016

Our Ref: SCP160402.2

## **Re. Draft Galway Transport Strategy and Strategic Environmental Assessment Environmental Report**

Dear Mr Molloy,

The Environmental Protection Agency (EPA) acknowledges your notice, dated 14<sup>th</sup> June 2016, regarding the above and notes its contents. Please find attached the EPA's submission in relation to the Draft Galway Transport Strategy (the Strategy) and the Strategic Environmental Report (the ER).

We welcome that the comments made in our SEA Scoping Submission, dated the 19<sup>th</sup> May, have been taken into account in preparing the Strategy and the ER. We also acknowledge the Strategy includes proposals to increase the use, interconnectivity and efficiency of public transport alternatives within the Strategy area.

The Strategy provides a useful overview of the key transportation aspects and objectives covered under the Strategy (Road Network, Bus, Rail, Cycling Network, Pedestrian Network), as well as highlighting the hierarchy of relevant policies in Section 2.5.1

The objective to reduce private vehicle transportation journeys in favour of public transport options (rail, bus, cycling, pedestrian) aligns with the Agency's goal to seek improvements in air quality in urban areas and reduced greenhouse gas emissions. We welcome the extent to which the SEA has been integrated into the Strategy through inclusion of *Chapter 9 – Environmental Assessment*, and we also acknowledge the environmental-related criteria considered in the Appendix B (*Appraisal and Modelling of the Strategy*).

The Strategy should also consider promoting and supporting the achievement of zero or low carbon emission transport options where possible. The public transport fleet, and in particular buses, should seek to move towards cleaner fuels such as gas in order to reduce the contribution from the bus fleet to atmospheric particulate levels.

Realisation of reduction in private car-based transport and increase in public transport use and support for walking and cycling infrastructure will result in reduced emissions to atmosphere from the transport sector and improved air quality across the Strategy area. On this basis, the EPA is supportive of the specific measures proposed in the Strategy which promote a reduction in private car use and an increase in use of public transport, cycling and walking. The extent to which walking/cycling is promoted / encouraged in the Strategy should have a positive effect on 'human health' and 'quality of life' environmental criteria also.

In *Chapter 8 – Complementary Measures*, we welcome the inclusion of the strategic overview provided in *Figure 8.2 Land-use integration with proposed public transport corridors*. We also acknowledge in *Chapter 9 – Environmental Assessment*, the inclusion of the key specific SEA-related mitigation measures, in Section 9.2.6.1, which need to be adhered to, in implementing the Strategy.

### *Air Quality Considerations*

The EPA highlights the following issues which should be considered as part of the SEA process and should be reflected in commitments in the Strategy including relevant SEA related monitoring and where relevant reporting.

- In EPA's latest estimates of greenhouse gas emissions for 1990-2014, published in the recent report *Ireland's Final Greenhouse Gas Emissions in 2014* (EPA, 2016), show that greenhouse gas emissions from the



*Transport* sector are 2.5% higher (0.28 Mt CO<sub>2</sub>eq) in 2014 compared with 2013 levels. This is the second year of increases in *Transport* emissions since 2007. In 2014, gasoline use continued to decrease by 5.3% while diesel use increased by 6.1% and biofuels use increased by 13.6%. *Agriculture* and *Transport* sectors also accounted for 72.4% of total non-ETS emissions in 2014

- The revised EU National Emissions Ceiling Directive will place further downward pressure on pollutant emissions in Ireland, and NO<sub>x</sub> presents a particularly significant compliance challenge. Reductions in emissions from the transport sector will be required in order to meet the proposed NO<sub>x</sub> emissions ceiling for 2030. Strategies such as the Galway Transport Strategy will play a key role in reducing NO<sub>x</sub> emissions from the transport sector.
- Impacts on NO<sub>x</sub> concentrations in the atmosphere from any traffic management measures/changes should be determined in advance of implementing the Strategy.
- Consideration should be given to the PM<sub>2.5</sub> NERT (National Exposure Reduction Target) as specified under the EU CAFE Directive, which requires a 10% reduction in ambient PM<sub>2.5</sub> levels by 2020. Reductions in pollutant loadings from transport sector will be an important contributor to achieving the NERT reductions.
- The DECLG is proposing to develop a Clean Air Strategy for Ireland. Whilst the development of this strategy will only commence in 2016, it may nonetheless be worth noting within the SEA process and committing to incorporating into the Strategy upon its adoption.

#### *Additional Plans/Programmes to Consider*

We also refer to you a number of additional Plans/Programmes/Policies to consider in preparing the Strategy. The *National Policy Framework for Alternative Fuels Infrastructure for Transport (AFF)* is currently being prepared by the Department of Transport, Tourism and Sport to promote the move away from oil-based fuels infrastructure for the transport sector. A commitment to incorporate the relevant aspects of this policy framework should be promoted in the Strategy. This will show a clear objective to reflect the national commitment to promote the move towards non-oil based fuels and associated infrastructure for the transport sector.

We also recommend that the Strategy in take into account and reflect the relevant commitments being considered in the National (Climate Change) Mitigation Plan (DECLG) in particular in relation the transport sector, which is also currently under preparation. A national (Climate Change) Adaptation Plan is also being prepared and should also be taken into account and incorporated as appropriate. See: <http://www.environ.ie/environment/climate-change/policy/national-climate-policy>

The National Mitigation Plan seeks to reduce greenhouse gas emissions in a number of key sectors, including the transport sector. When considering the various transportation options and associated projects which may arise from this Strategy's implementation, this should be aligned with the relevant aspects of the National (Climate) Mitigation plan. The Strategy should clarify the status of the significant transport infrastructure projects referenced in the Strategy. The extent to which the projects referred to in the Strategy, have been subject to relevant environmental assessments, and also to which they have been considered in the context of this Strategy should also be clarified.

It would be useful to include a reference to the National Landscape Strategy (DECLG, 2015), in terms of integrating areas of significant landscape character in implementing the Strategy.

The Strategy should also consider acknowledging that the EPA's latest Ireland's Environment - State of the Environment Report (for 2016), will be published later this year. The relevant aspects of this report, should (where appropriate) be taken into account in implementing the Strategy, and in the preparing the related SEA-related environmental monitoring programme.

#### **Comments on the SEA Environmental Report**

##### *Monitoring Considerations*

In *Chapter 10 of the SEA – Draft Galway Transport Strategy Monitoring Programme*, we note the inclusion of *Table 10.1 – Monitoring Measures*. This table should include details on parameters to be monitored and the frequency of



monitoring where possible. There is also merit in including this table in Chapter 9 of the Strategy, to further integrate the SEA and Strategy. The Strategy should consider including a commitment to link the Strategy-related and environmental-related monitoring aspects. This would provide a clear approach to monitor how effectively the Strategy is being implemented, while taking into account environmental sensitivities/vulnerabilities.

#### *Mitigation Measures*

We welcome that the key objectives and policies associated with environmental mitigation related aspects of the Strategy are clearly described and show a good level of integration of the SEA recommendations in the Strategy. In particular, we welcome that the Strategy highlights in *Chapter 9 –Environmental Assessment*, the key development plan policies and objectives which reflect the key mitigation measures setting the policy framework for the Strategy.

The Strategy should consider including a commitment which requires that projects arising out of the implementation of this strategy will be carried out in accordance with the various environmental regulations and EU Directives including SEA, EIA, AA, FRA etc, as relevant and appropriate.

#### **Future Amendments to the Draft Strategy**

Where amendments to the Strategy are proposed, these should be screened for likely significant effects in accordance with the criteria as set out in Schedule 1 of the SEA Regulations and should be subject to the same method of assessment applied in the “environmental assessment” of the Draft Strategy.

#### **SEA Statement – “Information on the Decision”**

Following adoption of the Strategy, an SEA Statement, should summarise the following:

- How environmental considerations have been integrated into the Strategy;
- How the Environmental Report, submissions, observations and consultations have been taken into account during the preparation of the Strategy;
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A copy of the SEA Statement with the above information should be sent to any environmental authority consulted during the SEA process.

Should you have any queries or require further information in relation to the above please contact the undersigned. I would be grateful if an acknowledgement of receipt of this submission could be sent electronically to the following address: [sea@epa.ie](mailto:sea@epa.ie).

Yours sincerely

A handwritten signature in blue ink, appearing to read 'Cian O'Mahony', is positioned above the printed name.

**Cian O'Mahony**

*Scientific Officer*

*SEA Section*

*Office of Evidence and Assessment*

*Environmental Protection Agency*

*Regional Inspectorate*

*Inniscarra, County Cork*





Mr Jim Molloy  
Senior Executive Engineer  
Galway Transportation Unit  
Galway City Council  
College Road  
Galway

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We also recommend that the Strategy in take into account and reflect the relevant commitments being considered in the National (Climate Change) Mitigation Plan (DECLG) in particular in relation the transport sector, which is also currently under preparation. A national (Climate Change) Adaptation Plan is also being prepared and should also be taken into account and incorporated as appropriate. See: <http://www.environ.ie/environment/climate-change/policy/national-climate-policy>

The National Mitigation Plan seeks to reduce greenhouse gas emissions in a number of key sectors, including the transport sector. When considering the various transportation options and associated projects which may arise from this Strategy's implementation, this should be aligned with the relevant aspects of the National (Climate) Mitigation plan. The Strategy should clarify the status of the significant transport infrastructure projects referenced in the Strategy. The extent to which the projects referred to in the Strategy, have been subject to relevant environmental assessments, and also to which they have been considered in the context of this Strategy should also be clarified.

It would be useful to include a reference to the National Landscape Strategy (DECLG, 2015), in terms of integrating areas of significant landscape character in implementing the Strategy.

The Strategy should also consider acknowledging that the EPA's latest Ireland's Environment - State of the Environment Report (for 2016), will be published later this year. The relevant aspects of this report, should (where appropriate) be taken into account in implementing the Strategy, and in the preparing the related SEA-related environmental monitoring programme.

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#### *Mitigation Measures*

We welcome that the key objectives and policies associated with environmental mitigation related aspects of the Strategy are clearly described and show a good level of integration of the SEA recommendations in the Strategy. In particular, we welcome that the Strategy highlights in *Chapter 9 –Environmental Assessment*, the key development plan policies and objectives which reflect the key mitigation measures setting the policy framework for the Strategy.

The Strategy should consider including a commitment which requires that projects arising out of the implementation of this strategy will be carried out in accordance with the various environmental regulations and EU Directives including SEA, EIA, AA, FRA etc, as relevant and appropriate.

#### **Future Amendments to the Draft Strategy**

Where amendments to the Strategy are proposed, these should be screened for likely significant effects in accordance with the criteria as set out in Schedule 1 of the SEA Regulations and should be subject to the same method of assessment applied in the “environmental assessment” of the Draft Strategy.

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A copy of the SEA Statement with the above information should be sent to any environmental authority consulted during the SEA process.

Should you have any queries or require further information in relation to the above please contact the undersigned. I would be grateful if an acknowledgement of receipt of this submission could be sent electronically to the following address: [sea@epa.ie](mailto:sea@epa.ie).

Yours sincerely

A handwritten signature in blue ink, appearing to read 'Cian O'Mahony', is positioned above the printed name.

---

**Cian O'Mahony**  
*Scientific Officer*  
*SEA Section*  
*Office of Evidence and Assessment*  
*Environmental Protection Agency*  
*Regional Inspectorate*  
*Inniscarra, County Cork*



An Roinn Ealaíon, Oidhreachta,  
Gnóthai Réigiúnacha, Tuaithe agus Gaeltachta  
Department of Arts, Heritage,  
Regional, Rural and Gaeltacht Affairs

Our Ref: **FP2016/034** (*Please quote in all related correspondence*)

26 July 2016

Jim Molloy  
Senior Executive Engineer  
Galway Transportation Unit  
Galway City Council  
College Road  
Galway

By email to [jim.molloy@galwaycity.ie](mailto:jim.molloy@galwaycity.ie)

**Re: Draft Galway City Transport Strategy**

A chara

On behalf of the Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs, I refer to correspondence received in connection with the above. Outlined below are heritage-related observations/recommendations of the Department under the stated heading(s).

### **Nature Conservation**

The Department refers to Galway City Council's correspondence of 13/06/16 in respect of the new 'Galway Transport Strategy' (Draft, June 2016), and to the draft GTS which is currently on public display. It is understood that this strategy is an 'Integrated Transport Management Programme for Galway City and Environs' and has been prepared by the Council in conjunction with Galway County Council and the National Transport Authority.

This submission is made in the context of this Department's role in relation to nature conservation, including as an environmental authority under SEA legislation, and as a prescribed authority under planning legislation if this is a statutory land use plan. The observations below are not exhaustive and are offered to assist the Council in meeting the obligations that arise in relation to European sites, other nature conservation sites, natural habitats and protected species, and biodiversity and environmental protection in general in the context of the GTS and the environmental assessments required. They are made without prejudice to any observations or recommendations that may be made by the Minister and this Department in the future.

The observations should be read in conjunction with the previous nature conservation observations of 26/05/16 that issued to the Council in relation to this strategy, and other

observations that have issued from this Department to the Councils in recent years in relation to constitutive and related elements of the GTS, and City<sup>1</sup> and County Development Plan provisions for same. Previous observations have highlighted a range of ecological and environmental concerns for GTS components and possible in combination effects that are not all repeated here.

### *The GTS*

The GTS comprises an amalgam of summary and supporting documents, including a main technical report and technical appendices (Appendices A-K). Among the latter, the environmental assessment reports are found in Appendix I – SEA Environmental Report (ER); Appendix J – NIS; and Appendix K – Strategic Flood Risk Assessment (SFRA). The GTS comprises an overall vision, guiding principles<sup>2</sup>, strategic objectives, key performance indicators, and strategic aims for transport management and infrastructure development. It includes a suite of projects which are supported or will be guided by the GTS as a framework, including developments of varying scales, from signage and junction amendments, to the proposed N6 Galway City Ring Road (N6 GCRR). The projects also vary in terms of geographical specificity; in some cases, the locations are mapped and known, while in some other cases, the tie-ins and/or general locations or routes are clear, even if the project details are not yet available.

The plan or strategy area is identified as including Galway city and its environs, extending as far as Oranmore, Barna, Moycullen and Claregalway. It is noted, however, that the strategy area is not specifically mapped, and that the focus of the environmental assessments is primarily on the city.

### *GTS status and appropriate assessment*

The GTS appears to be a non-statutory plan that may be given effect, in full or in part, through its incorporation into the City and County Development Plans. Depending on the approach taken, the appropriate assessment will either be carried out under Part XAB of the Planning and Development Act, 2000 as amended, or Part 5 of the European Communities (Birds and Natural Habitats) Regulations, 2011. At this stage, and contrary to what is said in Section 1.5 of the main technical report (and also in the executive summary), the appropriate assessment is a pending step in the plan-making or adoption process, and has not yet been carried out under relevant legislation. When it is carried out, it should take account of the NIS (or NIR), as well as queries, concerns and issues raised regarding likely effects on European sites in submissions such as this. Case law of the Court of Justice of the European Union has established that an appropriate assessment cannot have lacunae, and must contain complete, precise and definitive findings and conclusions with regard to the implications of the project for the conservation objectives and integrity of a European site or sites. In this context, the recent judgment of Justice Barton (Irish High Court, January 2016) in the case of Balz and others versus An Bord Pleanála should be noted as this has highlighted the obligations of the decision-making authority to resolve scientific uncertainties or discrepancies, including matters raised by other parties, in relation to the potential effects of a proposal on European sites in the appropriate assessment; essentially, it was found that the appropriate assessment determination must demonstrate how the differing scientific opinions were addressed, and must give the particular reasons for preferring one view over another.

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<sup>1</sup>Including, for example, the Department's submission of 11/03/16 in respect of the Draft Galway City Development Plan 2017-2023

<sup>2</sup>The Department notes that none of the guiding principles are primarily ecological or environmental

### *GTS and European sites*

According to the NIS (Section 2.5), the GTS was analysed and assessed to identify the GTS elements that could have adverse effects on the integrity of a European site(s); in the case of many elements, it was found that adverse effects would result, or could not be excluded with confidence, even though full project details and project-level assessments are not yet available. Mitigation measures are specified in the NIS (e.g. in Section 3.2, including 15 boxes) and these are intended to ensure that no adverse effects would result from these projects or, if adverse effects would result, to ensure that projects would be reconfigured and reassessed, abandoned, or considered under the derogation procedures of Article 6(4) of the Habitats Directive (as set out in planning legislation). While this type of approach may be valid at plan or strategy level, but it would be advised that mitigation measures outline the general procedural steps to be followed, including in respect of assessments required, and the tests that will apply so that the correct outcome may be reached in respect of individual projects, noting that the cumulative or in combination effects of other plans and projects must always be taken into account.

The preparation of the NIS will have influenced the content of the GTS. It is also critical that all mitigation measures in the NIS are reflected in the content and objectives of the main technical report and executive summary; it is the strategy or plan that must be able to demonstrate compliance with the Habitats Directive, and be able to pass the tests of the appropriate assessment process. Mitigation measures in the NIS that are considered necessary to ensure that adverse effects on the conservation objectives and integrity of European sites will not result, cannot be separate from the content of the strategy itself. If reliant on mitigation measures in an appendix or other source, clear, effective and repeated cross-referencing will be required in all relevant elements and sections of the main strategy/plan document.

A particular concern for the Council at present is that the NIS mitigation measures are not included or evident in the content of the GTS executive summary or main technical report, and are not adequately reflected in the transport elements the GTS supports. In addition to the executive summary and main technical report containing elements that may have adverse effects on the conservation objectives and integrity of European sites result (as determined by the NIS), a general indication is given that certain specific projects or transport elements are feasible and can be delivered in certain general and more specific locations when this may not be the case. The GTS acknowledges that certain elements may not be viable. It is noted that Section 9.3.5 of the main technical report contains a reference to mitigation measures in the NIS but these are not summarised, listed or cross-referenced in the former (or in the executive summary). Furthermore, and contrary to what is said in Section 1.5 of the main technical report, the necessary mitigation measures arising from the NIS (not the appropriate assessment, as stated), have not been incorporated into the draft strategy.

In the NIS, fifteen boxes contain mitigation measures which cover various scenarios that could arise from the development of various GTS elements, e.g. habitat loss, habitat alteration or degradation (including some aspects of habitat structure and function, e.g. hydrology or water quality), disturbance or displacement of species, and barrier effects. Further consideration should be given to how it will be known that these mitigation measures should be implemented, and when, and how cumulative and in combination effects in these areas will be addressed. Additionally, what procedures are or will be in place to ensure their implementation, as well as the roles of the various authorities in these regards, should also be considered.



The Council should consider whether there is any information, clarity or guidance in the main technical report and executive summary regarding:

- the approach or series of steps to be followed in future GTS project planning and design;
- the fact that ecological and environmental assessments will be required at various project stages, e.g.:
  - a. to support the consideration and comparison of alternatives,
  - b. to avoid direct or adverse effects on European sites or other sensitive features,
  - c. to facilitate screening for appropriate assessment and for EIA,
  - d. to prepare EISs or NISs, and
  - e. to support and enable future planning applications;
- the details and mechanisms of how future GTS projects will be managed, captured and screened for their own specific assessment or analysis by the Councils or other authorities, and the applications for consent that may be required;
- the fact that detailed ecological and other environmental surveys and data collection exercises have already been carried out, and that detailed ecological data and information exists for much of the plan area, and how this will have an application in future land use and project planning, and in assessments and monitoring;
- the situations where it is known that the conservation objectives are to restore the favourable conservation condition of qualifying interests (currently in the case of certain habitats and a species in Galway Bay Complex cSAC – see below), or that damage to European sites has occurred in the past;
- how cumulative or in combination effects will be addressed and assessed at the GTS or plan/city level, and whether any framework is available within which these could be considered;
- the series of steps, elements and tests that would be involved in making an Article 6(4) case, and the situations under which this might be considered by the Councils and other authorities.

Consideration should also be given to the role or function of the GTS in the delivery of projects, and whether the NIS is seeking to assess these, or the plan-level provisions for these, e.g. safeguarding lands for future project development, establishing planning policy in favour of certain developments, or committing to explore the feasibility of developments in certain locations in the future. If the former, care should be taken in making assertions about whole project effects on the basis of the examination of overlaps with European sites only, or on the basis of assessments and analysis that are not presented, e.g. the extracts of the N6 GCRR corridor where it intersects Lough Corrib cSAC (site code 000297). Until an appropriate assessment of a project has been carried out by a competent authority, it is not possible to reach definitive conclusions as to the absence of adverse effects on the conservation objectives and integrity of a European site, taking any in combination effects of other plans and projects, into account.

There is insufficient analysis in the NIS to show that the mitigation measures will be effective in practice in avoiding adverse effects on the conservation objectives and

integrity of a European site or sites. The NIS, including in the boxes, lists some but not all aspects of impacts that might arise from projects, and presents mitigation measures to address these. However, there is insufficient detail and context about the planning, design and assessment processes through which these projects will go, and about the details of the assessments that will be required. As a specific example, the effects of projects on bats, including Lesser Horseshoe Bats, should be screened and assessed on a case by case basis where the need arises, and cannot be determined on the basis of separation distances such as 2.5km, as specified in NIS Box 9.

Within the NIS, there is insufficient consideration of the conservation objectives of the European sites that may be impacted, noting that, in some cases, the current objective is to restore, not just maintain, favourable conservation condition. This is most apparent in the case of Galway Bay Complex cSAC (site code 000268) where site specific conservation objectives are available, and where favourable conservation condition must be restored in the case of some qualifying interests, e.g. coastal lagoons\*, a priority habitat, Atlantic salt meadows (*Glauco-Puccinellietalia maritima*), Mediterranean salt meadows (*Juncetalia maritimi*), and Otter. It appears that in the case of at least one indicative cycleway/greenway route, it will be unlikely that direct, indirect and/or cumulative effects on one or more of these habitats can be avoided, meaning there is a need for further examination of the implications for the conservation objectives of this site in the appropriate assessment.

The proposed Galway Harbour Extension project, which includes a new rail connection, is connected with transport in the city and plan area, and possibly overlaps or intersects with a cycleway proposed in the GTS. It is currently the subject of an application with An Bord Pleanála; if progressed, the Department understands that the provisions of Article 6(4) will need to be invoked, thereby necessitating the taking of all compensatory measures necessary to ensure that the overall coherence of 'Natura 2000' is protected. In view of this proposal, and its implications, further consideration should be given to the conclusion in the NIS and in Section 9.3.6 of the main technical report that the GTS does not pose a risk of adversely affecting the integrity of any European sites, either alone or in combination with other plans and projects, when the appropriate assessment of the GTS is carried out.

#### *Other ecological effects*

In the SEA Environmental Report (ER), potential effects on **NHAs (statutory nature conservation sites), proposed NHAs (non-statutory sites), the mapped network of local biodiversity areas, and the known Annex I habitat resource in city area and surrounds, are not included in the assessment,** even though data and GIS datasets are available to the Council in all cases. Furthermore, there **is no spatial analysis of GTS elements relative to these important ecological receptors and resources in the city, taking the potential effects of land use planning on ecological corridors and stepping stones into account in particular.** The potential significant effects on these features should be examined.

It is noted that there are no SEOs in the ER for nature conservation sites; this omission should be addressed. In the analysis relative to SEOs in Table 7.1, the GTS is identified as having 'uncertain effects' on biodiversity in many cases. What this means, and whether it is a valid appraisal, requires further assessment and analysis including in the context of the precautionary approach; where uncertain means unknown or not yet assessed, care should be taken in concluding that adverse effects will not result. The inter-relationships in Table 8.1 also require review for inconsistencies; there is a clear link between air quality and biodiversity, for example.

### *Other specific points*

1. Main technical report – whether references to ‘sustainable planning and development’ should be ‘proper planning and sustainable development’, should be checked and amended as necessary.
2. Main technical report – Section 9.2.6.1 outlines important EIA requirements for listed projects that are not evident in the other chapters or in the executive summary.
3. Main technical report – in addition to ‘securing consent and construction’, the operation of all aspects of the GTS should also be compliant with the provisions of the Habitats Directive and relevant national legislation, not just the appropriate assessment provisions.
4. Appendix E – Park & Ride facilities: Section 5 – Recommended Park & Ride criteria – no environmental or ecological evaluation criteria or constraints are listed or appear to have been included in identifying three new potential Park & Ride areas, and two possible additional areas.
5. Appendix F – Cycle Network and Infrastructure Development. It is stated that *“The majority of the proposed cycle network stems from the Galway Metropolitan Area Bus & Cycle Network Plan (2014), which set out a system of primary, secondary, and feeder cycle links. Some of these have been re-designated under the GTS”* ... Information to show that this transport plan, including the cycle network it contains, was subject to environmental assessments and is compliant with the requirements of the Habitats and Birds Directives, and relevant legislation, is not presented (in Appendix F).
6. Appendix F – Cycle Network and Infrastructure Development. Coastal dynamics and ‘coastal squeeze’ are particular issues for coastal cycle lanes or greenways, and coastal habitats and systems (coastal cliffs, stony banks, tidal watercourses, lagoons, coastal wetlands, etc.). Previous maximum storm limits (as indicated by storm throw and dispersal of cobble, and CFRAM flood risk mapping in Appendix K (Appendix A, drawing no. GCOB-SK-D-684)) should also be taken into account, as should the Councils’ experiences of development, repair and subsequent rebuilding and re-strengthening of coastal walkways, e.g. at Blackrock (Galway City) and Spiddal.
7. Appendix F – Cycle Network and Infrastructure Development. The references to an off-road greenway to provide a facility for cyclists along the coast from Barna to Galway City lacks any reference to ecological and other (coastal erosion and/or flooding) constraints, assessments required and being undertaken, consent processes, etc.
8. Appendix F – Cycle Network and Infrastructure Development. The Knocknacarra North & Bushypark route (Ballagh Road) passes through part of Moycullen Bogs NHA (site code 002364). It is unclear if any effects on this site could result from the GTS.
9. Appendix F – Cycle Network and Infrastructure Development. The indicative locations of the NUIG/Greenway, City Centre – Lough Atalia Road and Renmore links, and Dublin-Galway greenway/cycleway section (indicative location) are all in or bordering European sites, or are unlikely to be able to avoid these sites. In addition to full designs being required, assessments are also required.

You are requested to send further communications to this Department's Development Applications Unit (DAU) at [manager.dau@ahg.gov.ie](mailto:manager.dau@ahg.gov.ie) (team monitored); if this is not possible, correspondence may alternatively be sent to:

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## APPENDIX II: Review of Plan Hierarchy

European Legislation and Plans	Objectives	Relevance to Galway Transport Strategy SEA
EIA Directive (2011/92/EU as amended by 2014/52/EU)	<p>The EIA Directive (85/337/EEC) came into force in 1985 and applies to a wide range of defined public and private projects, which are defined in Annexes I and II of the Directive. The Directive has been amended three times, in <a href="#">1997</a>, <a href="#">2003</a> and <a href="#">2009</a>. Under the Directive Member States are required to carry out Environmental Impact Assessments (EIA) of certain public and private projects, before they are authorised, where it is believed that the projects are likely to have a significant impact on the environment.</p> <p>The initial Directive of 1985 and its three amendments have been codified by <a href="#">Directive 2011/92/EU</a> of 13 December 2011.</p>	The Directive will contribute towards, in combination with other legislation and regulations, the achievement of the provisions of the Transport Strategy.
SEA Directive (2001/42/EC)	<p>This Directive requires plan-makers to carry out an assessment of the likely significant environmental effects of implementing a plan or programme before the plan or programme is adopted. There are two statutory instruments which transposed the SEA Directive into Irish Law:</p> <p>The SEA Directive (2001/42/EEC) came into force in 2004 and was subsequently transposed into Irish law through S.I. No. 435 of 2004 European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 and S.I. No. 436 of 2004 Planning and Development (Strategic Environmental Assessment) Regulations 2004 as amended by S.I. No. 200 of 2011 European Communities (Environmental Assessment of Certain Plans and Programmes) (Amendment) Regulations 2011 and S.I. No. 201 of 2011 Planning and Development (Strategic Environmental Assessment) (Amendment) Regulations 2011 respectively.</p>	The Directive sets in motion the process of assessing the likely significant environmental effects of implementing a Transport Strategy before the plan or programme before it is adopted.
UN Kyoto Protocol and the Second European Climate Change Programme (ECCP II)	<p>The UN Kyoto Protocol set of policy measures to reduce Greenhouse gas emissions. The Second European Climate Change Programme (ECCP II) aims to identify and</p>	The UN Kyoto Protocol will contribute towards, in combination with other legislation and

	<p>develop all the necessary elements of an EU strategy to implement the Kyoto Protocol.</p> <ul style="list-style-type: none"> <li>• The Kyoto Protocol is implemented through the European Climate Change Programme (ECCP II)</li> <li>• EU member states implement measures to improve on or compliment the specified measures and policies arising from the ECCP</li> </ul>	regulations, the achievement of the provisions of the Transport Strategy.
Environmental Liability Directive (2004/35/EC)	<p>This Directive established a framework of environmental liability based on the 'polluter-pays' principle, to prevent and remedy environmental damage. The Directive relates to environmental damage caused by any of the occupational activities listed in Annex III, and to any imminent threat of such damage occurring by reason of any of those activities; damage to protected species and natural habitats caused by any occupational activities other than those listed in Annex III, and to any imminent threat of such damage occurring by reason of any of those activities, whenever the operator has been at fault or negligent</p>	The Transport Strategy is obliged to comply with, as relevant and appropriate, the requirements of the Directive and transposing regulations.
Bathing Water Directive (2006/7/EC)	<p>This Directive strengthens the rules guaranteeing bathing water quality. It supplements <a href="#">Directive 2000/60/EC</a> on water protection and management.</p> <p>Each year, the Member States are required to identify the bathing waters in their territory and define the length of the bathing season. They shall establish monitoring at the location most used by bathers or where the risk of pollution is greatest. Monitoring shall take place by means of sampling:</p> <ul style="list-style-type: none"> <li>• four samples, including one before the start of the bathing season.</li> <li>• three samples only if the season does not exceed eight weeks or if the region is subject to special geographical constraints.</li> </ul> <p>Member States shall communicate the results of their monitoring to the European Commission with a description of the water quality management measures. Monitoring may be suspended exceptionally once the Commission has been informed.</p>	The Transport Strategy is obliged to comply with, as relevant and appropriate, the requirements of the Directive and transposing Regulations.
Groundwater Directive (2006/118/EC)	<p>This directive establishes a regime which sets underground water quality standards and introduces measures to prevent or limit inputs of pollutants into groundwater.</p>	Minimising impacts to groundwater systems and



	<p>The directive establishes quality criteria that takes account local characteristics and allows for further improvements to be made based on monitoring data and new scientific knowledge. The directive thus represents a proportionate and scientifically sound response to the requirements of the Water Framework Directive (WFD) as it relates to assessments on chemical status of groundwater and the identification and reversal of significant and sustained upward trends in pollutant concentrations. Member States will have to establish the standards at the most appropriate level and take into account local or regional conditions.</p> <p>The groundwater directive complements the Water Framework Directive. It requires:</p> <ul style="list-style-type: none"> <li>•groundwater quality standards to be established by the end of 2008;</li> <li>•pollution trend studies to be carried out by using existing data and data which is mandatory by the Water Framework Directive (referred to as "baseline level" data obtained in 2007-2008);</li> <li>•pollution trends to be reversed so that environmental objectives are achieved by 2015 by using the measures set out in the WFD;</li> <li>•measures to prevent or limit inputs of pollutants into groundwater to be operational so that WFD environmental objectives can be achieved by 2015;</li> <li>•reviews of technical provisions of the directive to be carried out in 2013 and every six years thereafter;</li> <li>•compliance with good chemical status criteria (based on EU standards of nitrates and pesticides and on threshold values established by Member States).</li> </ul> <p>A public consultation on the review of Annexes I and II of the Groundwater Directive was carried out in 2013 with the aim of collecting opinions on different policy options for the review of the Annexes, and to identify missing options and gather data on impacts.</p>	resources has been included as an SEA Objective (Water) of the Transport Strategy.
Water Framework Directive (2000/60/EC)	The Water Framework Directive (WFD) (2000/60/EC) seeks to improve or maintain the ecological and physio-chemical quality of all waterbodies – rivers, lochs, groundwater, transitional waters (estuaries) and coastal waters. When fully operational, the WFD will achieve the level of protection afforded by a number of existing directives, including the Shellfish Waters Directive (and Freshwater Fish Directive), which is scheduled to be repealed in 2013. These objectives will be	The Transport Strategy is obliged to comply with, as relevant and appropriate, the requirements of the Directive and transposing Regulations.

	achieved through the operation of River Basin Management Plans (RBMPs), which incorporate the improvement actions specified within the Shellfish Water PRPs. Its ultimate objective is to achieve “good ecological and chemical status” for all Community waters.	
Floods Directive (2007/60/EC)	Directive 2007/60/EC on the assessment and management of flood risks entered into force on 26 November 2007. The Directive aims to establish a common framework for assessing and reducing the risk that floods within the European Union pose to human health, the environment, property and economic activity. This Directive requires Member States to assess if all water courses and coast lines are at risk from flooding, to map the flood extent and assets and humans at risk in these areas and to take adequate and coordinated measures to reduce this flood risk. This includes the preparation and implementation of flood risk management plans for each river basin district. This Directive also reinforces the rights of the public to access this information and to have a say in the planning process.	Minimising the risk of flooding has been included as an SEA Objective (Water) of the Transport Strategy
European Communities (Birds and Natural Habitats) Regulations 2011	<p>These regulations consolidate the European Communities (Natural Habitats) Regulations 1997 to 2005 and the European Communities (Birds and Natural Habitats)(Control of Recreational Activities) Regulations 2010, as well as addressing transposition failures identified in the CJEU judgements.</p> <p>Articles 6(1) and (2) of the Regulations require Member States to take appropriate conservation measures to maintain and restore habitats and species, for which a site has been designated, to a favourable conservation status. Furthermore the Regulations require Member States to avoid damaging activities that could significantly disturb these species or deteriorate the habitats of the protected species or habitat types. Under these regulations any plan or project likely to have a significant effect on a Natura 2000 site, either individually or in combination with other plans or projects, shall undergo an Appropriate Assessment to determine its implications for the site.</p>	The Transport Strategy is obliged to comply with, as relevant and appropriate, the requirements of the European Community Regulations 2011.

	The competent authorities can only agree to the plan or project after having ascertained that it will not adversely affect the integrity of the site concerned. In exceptional circumstances, a plan or project may still be allowed to go ahead, in spite of a negative assessment, provided there are no alternative solutions and the plan or project is considered to be of overriding public interest. In such cases the Member State must take appropriate compensatory measures to ensure that the overall coherence of the Natura 2000 Network is protected. Article 12 of the Regulations is also important as it affords protection to specific species regardless of their location.	
Fourth Daughter Directive (2004/107/EC)	The Fourth Daughter Directive lists pollutants, target values and monitoring requirements for the following: arsenic, cadmium, mercury, nickel and polycyclic aromatic hydrocarbons in ambient air.	The Draft GTS is obliged to comply with, as relevant and appropriate, the requirements of the Directive and transposing regulations.
The Clean Air for Europe Directive (2008/50/EC)	<p>The CAFE Directive merges existing legislation into a single directive (except for the fourth daughter directive)</p> <ul style="list-style-type: none"> <li>-The Directive sets new air quality objectives for PM2.5 (fine particles) including the limit value and exposure related objectives:</li> <li>- Accounts for the possibility to discount natural sources of pollution when assessing compliance against limit values.</li> <li>- Allows the possibility for time extensions of three years (PM10) or up to five years (NO2, benzene) for complying with limit values, based on conditions and the assessment by the European Commission.</li> </ul>	The Draft GTS is obliged to comply with, as relevant and appropriate, the requirements of the Directive and transposing regulations.
European Union Biodiversity Strategy to 2020	<p>The Strategy aims to halt or reverse biodiversity loss and speed up the EU's transition towards a resource efficient and green economy, halt the loss of biodiversity and the degradation of ecosystem services in the EU by 2020, and restore them in so far as feasible. The Strategy outlines six targets and twenty actions to aid European in halting the loss to biodiversity and ecosystem services</p> <p>The six targets cover:</p> <ul style="list-style-type: none"> <li>o Full implementation of EU nature legislation to protect biodiversity</li> </ul>	To contribute towards, in combination with other bodies, the achievement of the objectives of the regulatory framework for environmental protection and management

	<ul style="list-style-type: none"> <li>o Maintaining, enhancing and protecting for ecosystems, and green infrastructure</li> <li>o Ensuring sustainable agriculture, and forestry</li> <li>o Sustainable management of fish stocks</li> <li>o Reducing invasive alien species</li> <li>o Addressing the global need to contribute towards averting global biodiversity loss</li> </ul>	
Habitats Directive (92/43/EEC)	<p>In conjunction with the Birds Directive, the Habitats Directive forms the backbone of EU nature protection legislation.</p> <p>Known as the Habitats Directive (92/43/EEC) this legislation was transposed into Irish law by the European Communities (Natural Habitats) Regulations, 1997 (S.I. No. 94 of 1997). The main goal of the Directive is to promote the maintenance of biodiversity by requiring Member States to take measures to maintain, protect or restore natural habitats, animal and plant species to a favourable conservation status, introducing robust protection for those habitats and species of European importance. For Ireland, these habitats include raised bogs, active blanket bogs, turloughs, sand dunes, machair (flat sandy plains on the north and west coasts), heaths, lakes, rivers, woodlands, estuaries and sea inlets. The Directive provides for a network of protected sites known as The Natura 2000 network, which limits the extent and nature of development which may have a detrimental effect on the flora or fauna identified therein. Special Areas of Conservation (SACs) are part of the Natura 2000 Network and as such Ireland is required to propose relevant areas for designation as SACs to ensure the natural habitats and species habitats are maintained and restored if necessary to a favourable conservation status. Animals and plant species that are in need of strict protection are listed in Annexes to the Directive. The Habitats Directive is considered the most important EU initiative to support National and International biodiversity.</p>	The Transport Strategy and accompanying NIS is obliged to comply with, as relevant and appropriate, the requirements of the Directive and transposing Regulations.
Wildlife Acts 1976 to 2012	<p>The Wildlife Act is Ireland's primary national legislation for the protection of wildlife. It covers a broad range of issues, from the designation of nature reserves, the protection of species, regulation of hunting and controls in wildlife trading. It is implemented by a series of regulations. The Act provides strict protection for nearly all birds, 22 other animal species, and 86 plant species. These species are protected from injury, or from disturbance / damage to their breeding or resting place wherever these occur.</p>	While no specific SEA objective has been derived based on this Act, the objectives related to the protection of biodiversity would be supportive of the aims of the Wildlife Acts.

The main objectives of the Wildlife Acts are to:

- provide a mechanism to give statutory protection to NHAs;
- provide for statutory protection for important geological and geomorphological sites, including fossil sites by designation as NHAs;
- improve some existing measures, and introduce new ones, to enhance the conservation of wildlife species and their habitats;
- enhance a number of existing controls in respect of hunting, which are designed to serve the interests of wildlife conservation;
- broaden the scope of the Wildlife Acts to include most species, including the majority of fish and aquatic invertebrate species which were excluded from the 1976 Act;
- introduce new provisions to enable regulation of the business of commercial shoot operators;
- ensure or strengthen compliance with international agreements and, in particular, enable Ireland to ratify the [Convention on International Trade in Endangered Species \(CITES\)](#) and the [African-Eurasian Migratory Waterbirds Agreement \(AEWA\)](#);
- increase substantially the level of fines for contravention of the Wildlife Acts and to allow for the imposition of prison sentences;
- provide mechanisms to allow the Minister to act independently of forestry legislation, for example, in relation to the acquisition of land by agreement;
- strengthen the provisions relating to the cutting of hedgerows during the critical bird-nesting period and include a requirement that hedgerows may only be cut during that period by public bodies, including local authorities, for reasons of public health or safety;
- strengthen the protective regime for Special Areas of Conservation (SACs) by removing any doubt that protection will in all cases apply from the time of notification of proposed sites;
- and give specific statutory recognition to the Minister's responsibilities in regard to promoting the conservation of biological diversity, in light of Ireland's commitment to the [UN Convention on Biological Diversity](#).

<p>EU Directive on the Conservation of Wild Birds, (2009/147/EC) 1979</p>	<p>This Directive ensures far-reaching protection for all of <a href="#">Europe's wild birds</a>, identifying 194 species and sub-species among them as particularly threatened and in need of special conservation measures. There are a number of components to this scheme:</p> <p>Member States are required to designate <a href="#">Special Protection Areas (SPAs)</a> for 194 particularly threatened species and all migratory bird species. SPAs are scientifically identified areas critical for the survival of the targeted species, such as wetlands. They are part of the <a href="#">Natura 2000</a> ecological network set up under the Habitats Directive 92/43/EEC.</p> <p>A second component bans activities that directly <a href="#">threaten birds</a>, such as the deliberate killing or capture of birds, the destruction of their nests and taking of their eggs, and associated activities such as trading in live or dead birds (with a few exceptions).</p> <p>A third component establishes rules that limit the number of <a href="#">bird species that can be hunted</a> and the periods during which they can be hunted. It also defines hunting methods which are permitted (e.g. non-selective hunting is banned).</p>	<p>An SEA Objective of the Strategy has been defined which is focuses on the avoidance of impacts on the integrity of Natura 2000 sites.</p>
National Plans and Policy	Objectives	Relevance to the Galway Transport Strategy
<p>National Climate Change Strategy 2007 – 2012 (2007)</p>	<p>The National Climate Change Strategy 2007 - 2012 sets out a range of measures, building on those already in place under the first National Climate Change Strategy (2000) to ensure Ireland reaches its target under the Kyoto Protocol. The Strategy provides a framework for action to reduce Ireland's greenhouse gas emissions</p> <p>The Framework for Climate Change Bill published in December 2009 provides for a statutory obligation on the Minister to propose to the Government a National Climate Change Strategy on a 5 year cycle and to review the previous Strategy at the end of this time. The Strategy will set an overall reduction target for the 5-year period within the context of the long-term and annual reduction targets set out in the Bill (as subject to review by the Minister). It will also set the policy context for</p>	<p>To contribute towards, in combination with other bodies, the environmental protection and management of provisions within the Strategy.</p>

	the Carbon Budget and set out requirements in terms of policy objectives for the various sectors in the economy.	
National Spatial Strategy 2002-2020	<p>The National Spatial Strategy (NSS) is a coherent national planning framework for Ireland for the next 20 years. The Strategy aims to achieve a better balance of social, economic and physical development across Ireland, supported by more effective planning. The NSS aims to achieve this by setting out a range of measures to be implemented at the national, regional, county and local level.</p> <p>The Strategy seeks to establish a framework for appropriate development at a regional level, which makes provision for strategically located urban centres, particularly 'Gateways' and to unlock potential for progress, growth and development in a more balanced way across Ireland, supported by more effective planning. The strategy identifies a limited number of Regional Gateways and Hubs.</p> <p>It is noted that in Feb 2013 the Department of the Environment, Heritage and Local Government announced their intention to abandon the National Spatial Strategy and replace it with a revised strategy.</p>	To cumulatively contribute towards, in combination with other users and bodies – the achievement of the objectives of the regulatory framework for environmental protection and management
Smarter Travel – A Sustainable Transport Future (2009-2020)	<p>Smarter Travel: A New Transport Policy for Ireland 2009 - 2020 sets out Government's policy objectives with respect to promoting a significant modal shift from private transport to public transport and sustainable transport modes over the period up to 2020. Although the Policy contains 49 actions, they can be grouped into essentially four overarching objectives:</p> <ul style="list-style-type: none"> <li>• Actions to reduce distance travelled by private car and encourage smarter travel, including focusing population growth in areas of employment and to encourage people to live close.</li> <li>• proximity to places of employment and the use of pricing mechanisms or fiscal measures to encourage behavioural change,</li> </ul>	No specific SEA Objective has been developed from Smarter Travel. However, the overall aim of this Plan (encouraging more sustainable Travel patterns) is consistent with the SEA Objectives of the Strategy.



	<ul style="list-style-type: none"> <li>• Actions aimed at ensuring that alternatives to the car are more widely available, mainly through a radically improved public transport service and through investment in cycling and walking,</li> <li>• Actions aimed at improving the fuel efficiency of motorised transport through improved fleet structure, energy efficient driving and alternative technologies, and actions aimed at strengthening institutional arrangements to deliver the targets.</li> </ul>	
National Heritage Plan (2002)	This Plan aims to set out a clear and coherent strategy and framework for the protection and enhancement of our heritage. Every action in this Plan is founded on the principle of sustainable development, which states that the needs of the present generation must be met without compromising the ability of future generations to meet their own needs. The Plan seeks to ensure the protection of Ireland's heritage and to promote its enjoyment by all. The policies of the National Heritage Plan are inherent in the Strategic Environmental Appraisal of the Development Plans, Local Area Plans and have also been considered as part of the Galway Transport Strategy.	The policies of the National Heritage Plan are inherent in the Strategic Environmental Appraisal of the Development Plans, Local Area Plans and have also been considered as part of the Galway Transport Strategy.
Actions for Biodiversity 2011-2016 – Irelands National Biodiversity Plan	In 2002, Ireland published its first National Biodiversity Plan which contained 91 actions. The implementation of that Plan was reviewed as part of the process of developing this document. Actions for Biodiversity 2011-2016 builds upon the achievements since 2002. It focuses on actions that were not fully completed and addresses emerging issues. The main biodiversity actions identified are as follows: Taking responsibility; Strengthening knowledge and raising awareness; Protecting and restoring biodiversity in Ireland; Protecting and restoring biodiversity internationally. Amongst the most important means of providing for the conservation and sustainable use of biodiversity in the wider countryside is the planning system. A number of recent developments in planning legislation, in particular the Planning and Development (Amendment) Act, 2010, provide significantly improved measures for the conservation of biodiversity. The Planning and Development Act 2000-2011 provides that: -	A Natura Impact Report has been carried out as part of the preparation of the Transport Strategy.

	<i>'Development Plans must have mandatory objectives for the conservation of European and nationally important sites and for the conservation of biodiversity in general. The new Amendment Act 2010 has introduced for the first time, the requirement to carry out Appropriate Assessment for individual development proposals.'</i>	
National Action Plan for Social Inclusion 2007-2016	This Plan identifies a range of targets, interventions and high level strategic goals in certain key priority areas in order to achieve the overall objective of reducing consistent poverty. This Plan and the National Development Plan 2007-2013 'Transforming Ireland – A Better Quality of Life for All', highlight these goals which are aimed at making a decisive impact on poverty.	Two SEA Objectives have been Developed within the Strategy which addresses accessibility to employment opportunities and to cultural and community services and facilities, especially for the disadvantaged members of Society.
Investing in our Transport Future – A Strategic Investment Framework for Land Transport	The Framework establishes high level priorities for future investment in land transport; and Key principles, reflective of those priorities, to which transport investment proposals will be required to adhere.	The Transport Strategy will contribute towards smarter travel and associated positive environmental effects.
National Cycle Policy Framework 2009-2020	<p>The National Cycle Policy Framework (NCPF) sets out a substantial suite of interventions to improve the ease and safety of cycling, in order to achieve greater mode share going forward; again, as with Smarter Travel, these interventions include both 'hard' and 'soft' measures.</p> <p>The 'mission' is to create a strong cycling culture in Ireland. From the very highest level, the plan states that all planning should consider the needs of cyclists, and that this should dissipate downward into National, Regional, Local and sub-local plans. Transport infrastructural designs need to be cycling-friendly. The framework states that the focus needs to be on:</p> <p>Reducing volumes of through-traffic, especially HGVs, in city and town centres and especially in the vicinity of schools and colleges;</p> <ul style="list-style-type: none"> <li>• Calming traffic/enforcing low traffic speeds in urban areas;</li> </ul>	This framework works in combination with the Transport Strategy and will contribute towards the five key goals of Smarter Travel and associated positive effects.

	<ul style="list-style-type: none"> <li>• Making junctions safe for cyclists and removing cyclist-unfriendly multi-lane one-way street systems; and</li> <li>• Paying special attention to integrating cycling and public transport.</li> </ul>	
Delivering a Sustainable Energy Future for Ireland – The Energy Policy Framework 2007 – 2020 (2007)	<p>White paper setting out a framework for delivering a sustainable energy future in Ireland.</p> <p>Outlines strategic Goals for:</p> <ul style="list-style-type: none"> <li>• Security of Supply</li> <li>• Sustainability of Energy</li> <li>• Competitiveness of Energy Supply</li> </ul> <p>The underpinning Strategic Goals are:</p> <ul style="list-style-type: none"> <li>• Ensuring that electricity supply consistently meets demand</li> <li>• Ensuring the physical security and reliability of gas supplies to Ireland</li> <li>• Enhancing the diversity of fuels used for power generation</li> <li>• Delivering electricity and gas to homes and businesses over efficient, reliable and secure networks</li> <li>• Creating a stable attractive environment for hydrocarbon exploration and production</li> <li>• Being prepared for energy supply disruptions</li> <li>•</li> </ul>	To contribute towards, in combination with other bodies, the achievement of the provisions of the Transport Strategy.
National Energy Efficiency Action Plan for Ireland 2007 – 2020 (2007)	This is the second National Energy Efficiency Action Plan for Ireland which reviews the original 90 actions outlined in the first Plan and updates/renews/removes them as appropriate	To contribute towards – in combination with other users and bodies, the achievement of the provisions of the Transport Strategy.

<p>The Planning System and Flood Risk Management – Guidelines for Planning Authorities (2009)</p>	<p>These guidelines require the planning system at national, regional and local levels to:</p> <ul style="list-style-type: none"> <li>• Avoid development in areas at risk of flooding, particularly floodplains, unless there are proven 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;</li> <li>• Adopt a sequential approach to flood risk management when assessing the location for new development based on avoidance, reduction and mitigation of flood risk; and</li> <li>• Incorporate flood risk assessment into the process of making decisions on planning applications and planning appeals</li> </ul> <p>In relation to planning, the guidelines require planning authorities to:</p> <p>Introduce flood risk assessment as an integral and leading element of their forward planning functions at the earliest practicable opportunity.</p> <ul style="list-style-type: none"> <li>• Align strategic flood risk assessment (SFRA) with the SEA process.</li> <li>• Establish flood risk assessment requirements as part of the preparation of statutory land use plans.</li> <li>• Assess planning applications against the guidance set out in the Guidelines.</li> <li>• Ensure development is not permitted in areas of flood risk except where there are no suitable alternative sites.</li> </ul>	<p>A Strategic Flood Risk Assessment (SFRA) was carried out on the Galway Transport Strategy area to assess the risk of flooding. This assessment was prepared having regard to the Department of the Environment, Community and Local Government and OPW issued Guidelines to identify flood risk areas together with mitigation measures to be implemented.</p>
<p>Appropriate Assessment of Plans and Projects in Ireland, Guidance for Planning Authorities, Revised 2010; and</p>		<p>A Natura Impact Report has been carried out as part of the preparation of the Transport Strategy.</p>

National Landscape Strategy for Ireland 2015 – 2025	The National Landscape Strategy aims to implement the European Landscape Convention in Ireland by providing for specific measures to promote the protection, management and planning of the landscape.	To contribute towards, in combination with other bodies, the achievement of the objectives of the regulatory framework for environmental protection and management
Water Quality Management Plans	The Water Quality Management Plans ensure the quality of waters covered by the Strategy is maintained or improved through monitoring of water bodies against quality standards, outlining management programmes for water catchments and maintaining and improving the quality of groundwater.	To contribute towards, in combination with other users and bodies, the achievement of objectives of the regulatory framework for environmental protection and management.
Water Services Act 2013	<ul style="list-style-type: none"> <li>Provides the water services infrastructure</li> <li>Outlines the responsibilities involved in delivering and managing water services</li> <li>Identifies the authority in charge of provision of water and waste water supply</li> </ul> <p>Irish Water was given the responsibility of the provision of water and wastewater services in the amendment act during 2013, therefore these services are no longer the responsibility of the 34 local Authorities in Ireland.</p>	Transport Infrastructure Ireland is obliged to comply with, as relevant and appropriate, the requirements of this legislation.
<b>Regional and Local Plans</b>	<b>Objectives</b>	<b>Relevance to the Draft Galway Transport Strategy</b>
West Regional Planning Guidelines 2010-2022	<p>The Regional Planning Guidelines (RPG's) for the West Region apply to the Galway, Mayo and Roscommon area and take the NSS guidelines to a more regional and focused level. Within this region Galway City is the only Gateway City as identified in the NSS and is the economic capital of the region. Specific reference is made to the implementation of the proposals contained in 'Smarter Travel – A New Transport Policy for Ireland 2009 – 2020' within the region.</p> <p>SG2 of the guidelines aims to “put in place an integrated sustainable transport and access infrastructure that:</p>	To contribute towards to achieving the provisions of the Transport Strategy and provide protective policies and objectives in the implementation of such measures

	<ul style="list-style-type: none"> <li>• Facilitates access by all at a reasonable cost and with reasonable travel times to educational, work, leisure, health and other services;</li> <li>• Promotes appropriate public transport services – rail or bus transport and other sustainable modes of travel such as walking and cycling;</li> <li>• Provides a high level of service on major roads that minimises travel times and maximises safety and facilitates public transport by upgrading the network of national roads in the region in line with Transport 21 and NDP objectives;</li> <li>• Facilitates the movement of goods in and out of the region in a way that promotes competitiveness; and</li> <li>• Minimises the need for car-based travel where practical and viable.”</li> </ul>	
Western River Basin District Management Plan (2009-2015)	<p>The WRBD Plan aims to protect all waters within the district and, where necessary, improve waters and achieve sustainable water use. Waters include rivers, canals, lakes, reservoirs, groundwaters, protected areas (including wetlands and other water-dependent ecosystems), estuaries (transition)</p> <p>The implementation of the plan will bring incremental improvement leading to the majority of waters reaching at least “good status” at the latest by 2027, benefiting the whole community by providing long-term sustainable access to and use of those waters. Where waters are currently at less than good status, they must be improved until they reach good status and there must be no deterioration in the existing status of waters.</p>	County Galway is located within the Shannon International and Western River Basin Districts. Each of these districts has a River Basin Management Plan and a Programme of Measures which provide measures to be implemented in order to enable the achievement of the requirements of the WFD.
Galway City Development Plan 2011 - 2017	<p>The Galway City Development Plan 2011 – 2017 sets out a principal transportation objective as follows:</p> <p>“To integrate sustainable land use with an integrated transportation system that is based on smarter travel principles. To ensure the most efficient and sustainable use of land and a transportation system that eases movement to and within the city which facilitates access to a range of transport modes and accessible to all sections of the community.”</p>	To contribute to achieving the provisions of the Transport Strategy and to provide protective policies and objectives in the implementation of such measures

	<p>Because of its location as the only major urban centre in the west, which is one of the more underdeveloped parts of the country, Galway City's employment catchment area is second only to Dublin in terms of area as commuters travel from as far away as Mayo and Roscommon to the city. The predominant mode of travel amongst these commuters is the car. This in turn has resulted in traffic congestion on the main transport network and a negative impact on the functionality of the network itself. Employment opportunities increased dramatically between 1995 and 2007, until the economic downturn of 2008.</p> <p>Within the plan, the integration of land-use and transportation is recognised as a key factor in achieving Smarter Travel objectives. It also acknowledges that the promotion of Smarter Travel ideals are essential if the general public are to participate in it, support it and ultimately see the long term benefits of the programme.</p>	
Galway County Development Plan 2015 - 2021	<p>The current Galway County Development Plan contains a number of strategic aims, including:</p> <ul style="list-style-type: none"> <li>• Providing a safe and efficient network of transport to serve the needs of the people and the movement of goods and services to, from and within Galway County;</li> <li>• Providing access for all in an integrated manner with an enhanced choice of transport options including the Rural Transport Programme;</li> <li>• Promoting and encouraging the use of alternative sustainable modes of transport and to promote the use of transport energy from renewable resources;</li> <li>• Promoting development on serviced lands in towns and villages, particularly those located along public transport corridors in accordance with the Sustainable Residential Development in Urban Areas Guidelines (2009), having regard to existing settlement patterns;</li> <li>• Safeguarding the strategic transport function and carrying capacity of the motorway and national road network and associated junctions in order to</li> </ul>	To contribute to achieving the provisions of the Transport Strategy and to provide protective policies and objectives in the implementation of such measures



	<p>provide for the safe and efficient movement of inter-urban and inter-regional traffic; and</p> <ul style="list-style-type: none"> <li>Supporting the opening of the Western Rail Corridor route from Athenry, Tuam Hub Town, Claremorris to Collooney (4 Sections) as an option for passenger and cargo transportation.</li> </ul>	
Bearna Local Area Plan 2007-2017	Local Area Plans (LAPs) have been prepared for the towns/areas with a population over 1,500 persons; however, the County Development Plan remains the overarching Plan for the County.	To ensure the provisions of the Transport Strategy consider future transport requirements and potential impacts on the Bearna Area.
Claregalway Local Area Plan 2005-2011	Local Area Plans (LAPs) have been prepared for the towns/areas with a population over 1,500 persons; however, the County Development Plan remains the overarching Plan for the County. The Claregalway County Development Plan 2002-2011 is awaiting updating to take account of the CDP 2015-2012 Core Strategy.	To ensure the provisions of the Transport Strategy consider future transport requirements and potential impacts on the Claregalway Area.
Miagh Cuilinn Local Area Plan 2013-2019	<p>Local Area Plans (LAPs) have been prepared for the towns/areas with a population over 1,500 persons; however, the County Development Plan remains the overarching Plan for the County.</p> <p>The Plan works towards ensuring that infrastructure is developed on an ongoing basis to service future developments in order to accommodate planned population growth, whilst ensuring compliance with the statutory obligations to achieve good water quality status under the EU Water Framework Directive and associated national legislation. Whilst the opportunities for public transport are limited in Maigh Cuilinn, the Plan notes the provision of a By-Pass and possibly an Inner Relief route would provide a significant opportunity to focus on promoting and facilitating the use of sustainable modes of transport, such as walking and cycling, in and around the village areas including in or near the old Clifden to Galway rail track. Facilitating bus service provision and associated facilities and reducing car dependency through integrated land use and transportation and wider Smarter Travel initiatives are also key considerations in the Local Area Plan process.</p>	To ensure the provisions of the Transport Strategy consider future transport requirements and potential impacts on the Moycullen Area.

Oranmore Local Area Plan 2012-2018	<p>Local Area Plans (LAPs) have been prepared for the towns/areas with a population over 1,500 persons; however, the County Development Plan remains the overarching Plan for the County. The Oranmore Area Plan ensures the development of Oranmore in a sustainable manner, and will also complements the implementation of the current Galway County Development Plan.</p> <p>The Plan works to ensure infrastructure keeps apace of servicing future developments, while ensuring compliance with the statutory obligations to achieve good water quality status under the EU Water Framework Directive and associated national legislation. While the limited availability of public transport services to date has resulted in traffic congestion in the town centre, addressing the deficiencies in the existing pedestrian/cycling network, promoting walking/cycling and broader Smarter Travel initiatives, along with reducing car dependency are key considerations in the Local Area Plan process.</p>	To ensure the provisions of the Transport Strategy consider future transport requirements and potential impacts on the Oranmore Area
Other Plans and Programmes	Objectives	Relevance to Galway Transport Strategy
Galway City Heritage Plan 2015-2020;	The Galway City Heritage Plan sets out a five year framework of heritage objectives expressed in themes and associated actions. The interpretation of heritage is taken from the Heritage Act 1995 that is monuments, archaeology, heritage objects, architecture, flora, fauna, wildlife habitats, landscapes, seascapes wrecks, geology, heritage, gardens, parks and inland waterways. The actions in the Heritage Plan define the focus of work in areas of heritage and feed into the work projects on an annual basis	The policies of the Galway City Heritage Plan are inherent in the Strategic Environmental Appraisal of the Development Plans, Local Area Plans and have also been considered as part of the Galway Transport Strategy.
Galway City Biodiversity Action Plan 2014-2024	<p>The Galway City Biodiversity Action Plan has been established to respond to threats to biodiversity within Galway City Centre associated with development and water pollution. The rapid rate of urbanisation the city has experienced during the economic boom has put considerable pressure on natural habitats within the City.</p> <p>A local Biodiversity Action (LBAP) provides a framework for the conservation of biodiversity or natural heritage at a local level. It is designed to ensure that national and international targets for the conservation of biodiversity can be achieved while at the same time addressing local priorities.</p>	The policies of the Galway City Biodiversity Action Plan are inherent in the Strategic Environmental Appraisal of the Development Plans, Local Area Plans and have also been considered as part of the Galway Transport Strategy.

Galway City and County Cultural Strategy 2016-2025	The vision for the Galway City and County Cultural Strategy is to build a model of cultural excellence in cultural curation, artistic innovation and provision, community participation, social inclusion, economic sustainability and environmental responsibility to lead to an improved quality of life and the lasting legacy of pride of place.	An SEA Objective is to promote the protection and conservation of the cultural, built archaeological and linguistic heritage of the city and its environs, and where appropriate enhance character.
Strategic Flood Risk Assessment of Draft Galway City Development Plan 2017-2023	The Strategic Flood Risk Assessment for the Draft Galway City Plan 2017-2023 comprises an assessment of the full extent of Galway City and the Corrib Catchment to ensure that development will be located in areas of lowest flood risk first and only when it has been established that there are no suitable alternative options should development (of the lowest vulnerability) proceed. Consideration may then be given to factors which moderate risks, such as defenses, and finally consideration of suitable flood risk mitigation and site management measures is necessary.	An SEA Objective is to avoid increased risk of flooding (e.g. increased development in areas which may flood, siting of transport projects in areas which may flood).
Galway City Local Economic and Community Plan (LECP), Socio-Economic Statement (June 2015).	<p>As part of new leadership roles assigned to local authorities under the Local Government Reform Act 2014, Galway City Council now has the primary responsibility for leading economic, social and community development in the city.</p> <p>The Galway City Local Economic &amp; Community Plan (LECP) is for a six-year period and sets out objectives and actions to promote and support economic development and to promote and support local and community development in Galway City.</p> <p>The guiding principles of the LECP are:</p> <ul style="list-style-type: none"> <li>• The promotion and main-streaming of equality;</li> <li>• Sustainability;</li> <li>• Maximising returns by co-operation, collaboration and avoiding duplication;</li> <li>• Participative Planning;</li> <li>• Community consultation and engagement;</li> <li>• Community development principles; and</li> </ul>	The SEA Scoping Report has consulted with SEA Statutory Consultees and has incorporated these views into the SEA Environmental Report. An initial community consultation event was held in May 2015 with consultation material made available online. Further community engagement will occur over the Transport Strategy process.

	<ul style="list-style-type: none"><li>• Accessibility and ownership.</li></ul>	
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## Appendix III – Galway City Development Plan 2011-2017: Policies and Objectives

### Chapter 1: Overall Strategy including Core Strategy

#### Policy 1.2 National and Regional Context

Facilitate the future strategic and sustainable development of Galway City as a Gateway City having regard to National and Regional plans, policies and guidelines and having regard to the recommendations of the Galway Transportation and Planning Study.

#### Policy 1.3 Development Plan Strategy

Have regard to the targeted population growth of the city as a NSS Gateway as defined by the DECLG and ensure corresponding future development needs for such a population are planned for in particular in relation to settlement, housing, enterprise and infrastructure.

#### Policy 1.4 Settlement Strategy

Facilitate the future sustainable development of the city within the strategic settlement framework as informed by DECLG population targets, the GTPS, transportation strategies and the need for regeneration of key sites and in keeping with the principles of sustainable development.

#### Policy 1.5 Transportation Strategy

Support the implementation of the transportation strategy for Galway City in conjunction with all other transport providers and transport stakeholders in line with national and regional policy in particular Smarter Travel – A Sustainable Transport Future 2009–2020.

#### Policy 1.6 Development Strategy

Initiate the Development Strategy during the currency of this Plan and carry forward this approach to future development plans, supported by key investments and plan led growth strategies.

#### Policy 1.7 Environmental Strategy

Promote the protection and enhancement of the natural and built environment of the city while facilitating sustainable development and growth in line with EU and national legislation and encourage appropriate measures to reduce man-made greenhouse gas emissions and increase the use of renewable energies.

### Chapter 2: Housing

#### Policy 2.2 Neighbourhood Concept

- Encourage the development of sustainable residential neighbourhoods, which will provide for high quality, safe, accessible living environments which accommodates local community needs.
- Encourage sustainable neighbourhoods, through appropriate guidelines and standards and through the implementation of local area plans, framework plans/masterplans.
- Protect and enhance new/existing residential neighbourhoods through appropriate guidelines and standards, preparation of framework plans, development briefs and design statements.

- In the design of residential developments regard shall be had to the DEHLG Guidelines for Sustainable Residential Development in Urban Areas and the accompanying Urban Design Manual—A Best Practice Guide, (2009).

### **Policy 2.3 Outer Suburbs**

- Encourage higher residential densities at appropriate locations especially close to public transport routes.
- Ensure that sustainable neighbourhoods are places where housing, streets, open spaces and local facilities come together in a coherent, integrated and attractive form.
- Ensure the layout of residential developments has regard to adjoining developments.
- Encourage a mix of housing types and sizes within residential developments.
- Encourage the use of home zones within residential developments.
- Require residential developments of over 10 units to provide recreational facilities as an integral part of the proposed open space.
- Ensure a balance between the reasonable protection of the residential amenities of the outer suburbs and the protection of the established character and the need to provide for sustainable residential development.
- Encourage the integration of energy efficiency in the design and layout of residential development.

### **Policy 2.4 Established Suburbs**

- Ensure a balance between the reasonable protection of the residential amenities and the established character and the need to provide for sustainable residential development.
- Encourage additional community and local services and residential in all development in the established suburbs at appropriate locations.
- Enhance established suburbs, such as the Mervue residential area, through the implementation of environmental improvement schemes and the protection of all open spaces including existing green spaces.
- Finalise and implement the draft regeneration plan for Ballinfoile Park entitled A Better Ballinfoile
- Carry out a regeneration plan for open space areas in Ballybaan.

### **Policy 2.5 Inner Residential Areas**

- Protect the quality of inner residential areas by ensuring that new development does not adversely affect their character and has regard to the prevailing pattern, form and density of these areas.

- Enhance inner residential areas such as Claddagh, Shantalla and Bohermore, through the implementation of environmental improvement schemes and the protection of all open spaces, including existing green spaces

#### **Policy 2.6 City Centre Residential Areas**

- Protect and enhance city centre residential areas by discouraging encroachment from commercial development and unacceptable in all developments.
- Enhance city centre residential areas through implementation of environmental improvement schemes including, where appropriate, home zones and recreational facilities in conjunction with local residents.
- Encourage the expansion of the city centre residential community by requiring a residential content in new development proposals.
- Consider the redevelopment of the City Council car park at Bowling Green to meet social housing needs.

#### **Policy 2.7 Low Density Residential Areas**

- Protect the character of these areas by ensuring new development has regard to the prevailing pattern, form and density of these areas.
- Protect the characteristics of these areas through development standards and guidelines.

#### **Policy 2.8 Mews Housing Development**

Prepare a co-ordinated plan for areas of the city which have potential for mews housing development in consultation with local residents and the said plan and criteria to be approved by Elected Members.

#### **Policy 2.9 Traveller Accommodation**

- Encourage the provision of accommodation for Travellers having regard to the Traveller Accommodation Programme 2009-2013 and subsequent plans.
- Facilitate the specific accommodation needs of Travellers through land use zoning objectives.

### **2.10 Specific Objectives**

- Prepare an environmental improvement scheme for the Mervue residential area.
- Prepare environmental improvement schemes for Claddagh, Shantalla and Bohermore residential areas.
- Prepare a regeneration plan for the open space areas of Ballybaan.
- Finalise the draft regeneration plan for Ballinfoile Park entitled 'A Better Ballinfoile' and implement actions where feasible and subject to funding.
- Develop best practice advice for the design of homezones.



- Prepare an environmental improvement scheme for the area known as 'The West' that incorporates submissions already made by residents.
- Prepare an enhancement scheme for Whitehall.

### Chapter 3: Transportation

#### Policy 3.2 Land Use and Transportation

- Promote closer co-ordination between land use and sustainable transportation through zoning objectives.
- Encourage higher residential densities in co-ordination with high quality sustainable transport systems, in conjunction with the provision of accessible bus routes.
- Develop residential neighbourhoods served by public transport.
- Provide for development of district centres and local centres to reduce traffic trips and encourage sustainable transport modes such as walking and cycling.
- Prepare local area plans, which will give detailed direction to include for the integration of land use and sustainable transportation provision.

#### Policy 3.3 Promotion of Sustainable Transportation

- Promote, facilitate and co-operate with other agencies in securing the implementation of an integrated sustainable transportation strategy for the city in line with the Department of Transport's Smarter Travel, A Sustainable Transport Future 2009-2020.
- Support and facilitate in conjunction with other agencies a modal shift from the private car to more sustainable modes of transport such as walking, cycling and public transport.

#### Policy 3.4 The Galway Transportation Unit

- Promote measures recommended by the GTU based on recent transport studies.
- Co-ordinate with the service providers, other agencies and Galway County Council in the implementation of these measures.
- Support a Rapid Transit Route running along an west-east alignment from Ballyburke to Ardaun, via the city centre and linking major settlement and employment centres.
- Facilitate and implement an enhanced bus network throughout the city and continue to implement continuous bus priority measures at critical points along the enhanced bus network.
- Promote the development of mobility management plans with employers and travel generators in the city and promote the reduction in car based travel using such plans.
- Co-ordinate with service providers, schools and other agencies with an objective to reduce school generated traffic.

**Policy 3.5 Integrated Sustainable Transportation Plan**

- Formulate an Integrated Sustainable Transportation Plan for the city taking account of national policy as set out in the Department of Transport's Smarter Travel, A Sustainable Transport Future 2009-2020 and the National Cycle Policy Framework (2009).
- Encourage the development of a viable public transportation system.
- Promote and facilitate rail transport in particular the development of commuter rail and improved inter-urban routes and make provision for the integration of rail with other transport modes.
- Reserve strategic transport corridors in the interest of long term transport plans.
- Support the long term plans for the re-development of Ceannt Station as a multi-modal transportation interchange in the context of Galway as a Gateway and a Regional Centre.
- Promote the provision of park and ride facilities in conjunction with Galway County Council, service providers, government departments and the NRA.
- Promote and facilitate safe and convenient walking and cycling routes through land use policy, specific objectives and guidelines and implement the recommendations of the imminent Walking and Cycling Strategy for Galway City and Environs.
- Support the provision of improved access to Galway Airport and Galway Harbour area including an extension of the rail line to the Harbour.
- Promote accessibility for the disabled/mobility impaired.
- Encourage the development of a universal school bus service in consultation with the Department of Education and Skills.

**Policy 3.6 Specific Objectives****General**

- Prepare an Integrated Sustainable Transportation Plan for the city in conjunction with public transport service providers, NRA, Galway City Development Board and Galway County Council.
- Reserve lands for the approved section of the Galway City Outer By-Pass including a new bridge crossing of the River Corrib and have regard to the emerging route selection for the revised western link of the GCOB to the R336.
- Investigate and develop road improvements, junction improvements and traffic management solutions in the context of overall traffic management, development of public transport and facilitating access to strategic developments, to maximise the operating efficiency and safety of the network having regard to the requirements of all categories of road users and road network capacity constraints. Such solutions or interventions will be

developed in conjunction with the relevant agency, such as the NRA or the Department of Transport and will, where necessary, be subject to the requirements of the Planning and Development Acts and the Roads Acts.

- Facilitate the development of Ceannt Station as a multi-modal transportation interchange.
- Provide for park and ride schemes at strategic locations on approach roads to the city and at key modal change locations in particular to the east and west of the city.
- Establish an Urban Transport Management Centre for the city.
- Promote mobility management plans and other initiatives amongst employers, education facilities and institutions in conjunction with Galway County Council.
- Implement the recommendations of the Galway Smarter Travel Areas Action Plan, funds permitting.
- Prioritise provision of pedestrian routes throughout the city and extend cycle lane facilities within the city.

#### **Public Transport**

- Implement the recommendations of the Galway City Strategic Bus Study (2007) in conjunction with Bus Eireann, the Department of Transport, other agencies and other transport providers.
- Provide for a Rapid Transit Route (RTR) along a west-east alignment from Ballyburke to Ardaun via the city centre and linking major settlement and employment areas.
- Support the improvement of access for public transport, pedestrian and cyclists to and within major employment areas and institutions.
- Reserve lands for a sustainable transportation corridor parallel with the rail line from the city centre to the eastern city boundary.
- Provide a quality bus corridor through HSE/City Council lands at Merlin Park. Any alternative alignment considered, where there is an impact on Merlin Woods (existing habitat areas, trees etc.), shall be so designed to minimise impact and compensated with new planting. The QBC design process shall reflect the use and improvement of the woodlands in terms of recreation and amenity as set out under the Recreation and Amenity Needs Study (2008) and the Merlin Woods Habitat Management Plan (2009).
- Continue to implement bus priority measures and other transport initiatives as identified in the Galway City Strategic Bus Study (2007) and at critical points along the enhanced bus network.
- Complete the design of the Tuam Road quality bus corridor in conjunction with Galway County Council and reserve lands accordingly.

- Provide for bus termini and appropriate passenger facilities at Galway Cathedral, Knocknacarra District Centre and within the Headford Road LAP area.
- Provide bus shelters on all routes within the city capable of incorporating future integrated ticketing and future real-time scheduling.
- Provide for a possible commuter rail stop within the city boundary.
- Investigate measures to accommodate bus and pedestrian priority at the crossing of the River Corrib adjoining the Salmon Weir Bridge.
- Investigate measures to allow for the repair/replacement of Wolfe Tone Bridge having regard to public transport requirements and pedestrian and cyclist safety.
- Promote the provision of taxi stands on the public road network and in new developments as appropriate.
- Facilitate the provision of public transport and sustainable transportation facilities.

### Cycling

- Complete the Walking and Cycling Strategy for Galway City and Environs and implement its recommendations, where appropriate.
- Improve cycling infrastructure in the city through the shared use of bus lanes, increased provision of cycle lanes and rollout of cycle parking facilities.
- Provide a cycle way between Ceannt Station and Renmore having regard to the objective to dual track this section of rail line.
- Provide a cycle way beside the railway line from Renmore/Ballyloughaun to Roscam Park and Curragrean having regard to the objective to dual track this section of rail line.
- Provide a cycle route/shared surface along the banks of the canal from NUIG to Dominick Street.
- Provide a cycle way along the Terryland River Valley from the Headford Road to Castlegar.
- Where appropriate, provide cycle ways in all road schemes where roads are being upgraded.
- Provide motorcycle parking facilities at appropriate locations throughout the city.
- Provide bicycle parking facilities at appropriate locations throughout the city such as city centre, district centres, neighbourhood centres, beaches, cemeteries and parks.
- Implement two-way access to cyclists on one-way streets where feasible.
- Where a road has been assessed having regard to the statutory and national guidance requirements (including the hierarchy of solutions in the National Cycle Policy Framework) and a need identified for such treatments as hard shoulders or on road cycle lanes, such treatments shall be a minimum width of 2 metres.

**Pedestrian**

- Construct a new pedestrian bridge from Gaol Road to Newtownsmyth, location on map shown indicatively.
- Construct a new pedestrian bridge on the piers of the Old Clifden Railway Line from Waterside to the lands of NUIG and allow cycle use if feasible.
- Construct a pedestrian bridge from Fisheries Field to NUIG.
- Implement a new traffic circulation route to improve the pedestrian environment at Raven Terrace.
- Prioritise improvements to pedestrian movements from Headford Road LAP area, Woodquay, and Bothar na mBan and ensure that satisfactory linkages are provided in the redevelopment of Ceannt Station and the Harbour area.

**Road Proposals and Improvements**

- Construct a link road from the Sean Mulvoy Road to the Galway Shopping Centre replacing the existing access of the Bodkin Roundabout to the Galway Shopping Centre.
- Provide for upgrading of the Tuam Road (N17) from the Font Roundabout with the eastern approach road to the city boundary and including the realignment and relocation of the junction of the Castlegar Road with the Tuam Road.
- Incorporate a through road on residential lands between the Ballymoneen Road and the Clybaun Road serving development proposals on those lands.
- Implement road improvement schemes including bus priority measures on Seamus Quirke Road from the Browne Roundabout to the Western Distributor Road.
- Continue widening and improvements on Coolagh Road, Quarry Road and Monument Road.
- Continue the programme of improvement works on roads throughout the city.
- Facilitate a new access to Merlin Park Hospital from the Dublin Road at Galway Crystal.
- Carry out road widening and improvements at Bothar na gCoiste.

## Chapter 4: Natural Heritage, Recreation and Amenity

### Policy 4.2 Parks and Green Network

- Support sustainable use and management of areas of natural heritage importance, parks and recreation amenity areas and facilities through an integrated green network policy approach in line with RANS, where it can be demonstrated that there will be no adverse impacts on the integrity of Natura 2000 sites.
- Support the actions of the Galway City RANS.
- Provide adequate recreation and amenity open space for the future development of the city.
- Achieve a sustainable balance between meeting future recreational needs (both passive and active) and the preservation of the city's ecological and cultural heritage.
- Continue to acquire and develop lands zoned for recreation and amenity use. These lands will be used predominately for public use, but opportunities for public/private partnerships will also be investigated where a high standard of recreation facility will be developed and where opportunities for public access is provided.
- Improve accessibility to the city parks, recreation and amenity areas and facilities and include for sustainable modes of transport, where appropriate.
- Retain, extend and enhance opportunities for recreation within the green network for all members of the community including people with disabilities.
- Retain where appropriate the grounds of schools, colleges, sports clubs and other institutional facilities for recreation and amenity use allowing for increases in the physical capacity of the institutions or clubs and for policies in relation to CF zoned lands.
- Impose development levies under the development contribution scheme, where appropriate, to assist in the provision of recreation and amenity facilities.
- Support the participation of the city in the World Health Organisation Healthy Cities project and its aim to enhance the health of the city, its environment and its people.
- Support the actions of the Galway City Heritage Plan and imminent Biodiversity Action Plan relating to promoting ecological awareness and biodiversity.
- Co-operate with the NPWS, landowners and stakeholders in the preparation and implementation of management plans for designated sites.
- Promote the multi-use of indoor and outdoor (both private and public) recreation and leisure facilities and amenities to accommodate a diverse range of recreational needs.
- Enhance linkages and connectivity within the green network identified in Table 4.1 (*of Galway City Plan*).

- Promote public art, cultural events and exhibitions, as an important part in the design of facilities and amenities
- Ensure that all passive and active recreational proposals are considered in the context of potential impact on the environment, sites of ecological and biodiversity importance and general amenity.
- Ensure that notwithstanding land use zoning objectives, significant change of use from existing recreational facilities will only be considered if it is clearly demonstrated that either the loss of such a facility would not have an unacceptable impact on recreation and amenity provision in the city, or if an alternative facility is provided of equal or preferably superior benefit to the local community or the city's hierarchy of facilities and amenities.
- Support the actions of the Sports Partnership Strategic Plan 2009-2011.

#### **Policy 4.3 Greenways and Public Rights of Way**

- Continue to develop and improve the greenway network in the city, providing alternative accessible circulation routes for pedestrians and cyclists, for the enjoyment and recreational use by the entire community.
- Develop a strategic citywide coastal greenway from east to west linking with riverside walkways having due regard to nature conservation considerations.
- Investigate the potential of linked greenways from the city into the county area in particular to Barna, Oranmore and Tonabrocky.
- Create, enhance and maintain accessible and safe public rights of way where appropriate for pedestrian convenience and usage.
- Provide controlled access and linkages into all parks/public open spaces, areas of natural heritage, including along waterways, where it can be demonstrated that there will be no adverse impacts on the integrity of Natura 2000 sites. Ensure that paths and structures are constructed from suitable materials.
- Develop and implement a Walking and Cycling Strategy for Galway City and Environs.

#### **Policy 4.4 Natural Heritage and Biodiversity**

- Protect, conserve and promote the enhancement of internationally (EU) and nationally designated sites of natural heritage importance, including Galway Bay Complex and Lough Corrib Complex cSACs, Galway Bay SPA and existing, proposed and possible future NHAs in the city.
- Support the actions of the Galway City Heritage Plan and imminent Biodiversity Action Plan relating to the promotion of ecological awareness and biodiversity, the protection of wildlife corridors and the prevention of wildlife habitat fragmentation.
- Co-operate with the NPWS, landowners and stakeholders in the preparation and implementation of management plans for designated sites.



- Have regard to the relevant aspects of the Galway City Habitat Inventory and to wildlife and biodiversity considerations in supporting the biodiversity of the city and in the Council's role/responsibilities, works and operations, where appropriate.
- Protect and conserve rare and threatened habitats, including those listed on Annex I of the EU Habitats Directive.
- Ensure that plans and projects with the potential to have a significant impact on Natura 2000 sites (cSAC's or SPA) whether directly, indirectly or in combination with other plans or projects are subject to Habitats Directive Assessment (Appropriate Assessment) under Article 6 of the Habitats Directive and associated legislation and guidelines, to inform decision making.
- Achieve a sustainable balance between meeting future recreational needs (both passive and active) and the preservation of the city's ecological heritage.

#### **Policy 4.5 Coastal Area, Canals and Waterways**

- Protect and maintain the integrity of the coastal environment and waterways by avoiding significant impacts and meeting the requirements of statutory bodies, national and European legislation and standards.
- Conserve and protect natural conservation areas within the coastal area and along waterways and ensure that the range and quality of associated habitats and the range and populations of species are maintained.
- Develop and enhance the recreational and amenity potential of the city's waterways and coastal area, while not compromising the ecological importance of these areas.
- Investigate the extensive water resource in the city with a view to exploring where public access and enjoyment can be improved and where potential sustainable uses can be developed to the benefit of the city and have regard to ecological conservation and safety considerations.
- Support the implementation of the recommendations of the Western River Basin District Management Plan (WRBDMP) 2009- 2015 in relation to the protection of water quality of surface waters, groundwater and coastal waters.
- Ensure development and uses adhere to the principles of sustainable development and prohibit any development or use, which negatively impact on water quality.
- Ensure the conservation of the canal corridor and insist that developments abutting the canal relate to the context of the adjacent environment and contribute to the overall amenity and explore the possibility of opportunities for public access.
- Work with stakeholders including OPW, WRBD and Corrib Navigation Trust in the management of the river and canal systems.
- Encourage uses which will facilitate conservation of the industrial archaeology legacy of mill buildings, warehouses and associated features.

- Ensure developments located adjacent to the River Corrib do not adversely affect the safe and accessible navigation of the river.
- Ensure the protection of the River Corrib as a Salmonid River, where appropriate.
- Prohibit the location of structures other than structures with essential links to the waterway within 10 metres of the River Corrib in G agricultural zoned lands.
- Facilitate sustainable flood defence and coastal protection works in order to prevent flooding and coastal erosion, subject to environmental and visual considerations.
- Investigate the possibility of the development of a working millrace.
- Maintain and extend the achievement of the Blue Flag status.
- Ensure development within the aquatic environment shall be carried out in consultation with prescribed bodies and with adherence to their guidelines.
- Protect and maintain, where feasible, undeveloped riparian zones and natural floodplains along the River Corrib and its tributaries.
- Ensure development does not have a significant adverse impact, incapable of satisfactory mitigation, on protected species.

#### **Policy 4.6 Urban Woodlands and Trees**

- Make Tree Preservation Orders for individual trees or groups of trees within the city, where appropriate.
- Integrate existing trees and hedgerows on development sites where appropriate and require tree planting, as part of landscaping schemes for new developments.
- Manage and develop woodlands in the ownership of Galway City Council for natural heritage, recreation and amenity use, including Terryland Forest Park, Merlin Park Woods and Barna Woods/Lough Rusheen City Park.
- Continue to promote partnerships with the community for the management and improvement of local open spaces through schemes such as the Community Planting Initiative.
- Prepare and implement a plan which identifies suitable parts of the road and street network for the Planting of trees.

#### **Policy 4.7 Child Friendly City**

- Enhance and promote Galway as a Child Friendly City that will help children understand and feel secure in their environment and will encourage them to experience and respect the natural heritage of the city.

- Maintain and enhance existing play areas and provide new, accessible and safe play areas in accordance with the Council's RANS and housing policy requirements and any subsequent strategies.
- Continue the improvement and development of playground facilities as outlined in the Council's RANS .
- Promote the provision of facilities for older children and teenagers within the city, including skateboarding areas, teenage shelters and ball courts.

#### **Policy 4.8 Views of Special Amenity Value and Interest**

- Protect views and prospects of special amenity value and interest, which contribute significantly to the visual amenity and character of the city through the control of inappropriate development.
- Require landscaping schemes as part of planning applications to have regard to such views and limit any planting which could have a detrimental impact on the value of protected views.

#### **Policy 4.9 Agricultural Lands**

- Encourage sustainable agricultural activities, protect the rural character of these lands and where appropriate provide for sustainable recreation/amenity opportunities.
- Prevent developments which could cause environmental pollution or injury to general amenities.
- Ensure agricultural development complies with the measures set out in the Western River Basin District Management Plan (WRBDMP) 2009-2015.
- Provide for limited residential development in A zoned agricultural lands.
- Prohibit the location of structures other than structures with essential links to the waterway within ten metres of the River Corrib, in G zoned lands.

#### **4.10 Specific Objectives**

The Council has a number of short term, medium term and long term specific objectives with regards to Natural Heritage, Recreation and Amenity as set out below. Many of the specific objectives have been informed by the RANS. Projects, plans and developments with potential to have an adverse impact on the integrity of Natura 2000 sites will be subject to Habitats Directive Assessment.

##### **Short Term**

- Prepare master plans for parks in the city in accordance with RANS in consultation with local residents, including Barna/Lough Rusheen Park, Merlin Woods City Park (Doughiska RA zoned land) and Terryland Forest Park.
- Progress the acquisition of lands, for recreation and amenity purposes, and other lands which will enhance the extent of the green network, in particular key linkages and lands for active and passive recreation.

- Acquire and develop predominately for public use, lands zoned for recreation and amenity use in conjunction with new housing at Castlegar, Doughiska, Terryland Valley, Ballymoneen, Knocknacarra and Ardaun.
- Facilitate the extension of existing coastal greenway and linkages to create a city-wide coastal path from Silverstrand to Oranmore including the coastal walk extending from Silverstrand to Sailin in conjunction with approved coastal protection works.
- Investigate the further extension of the pedestrian access to Mutton Island subject to future review and a safe access protocol.
- Extend the riverside walk relating to the development of the Millennium Bridge at Waterside.
- Progress the enhancement of civic spaces at the Small Crane and Woodquay/Potato Market area.
- Acquire and develop new city cemetery site(s) in the city or city environs and approach cemetery design with an emphasis on landscaping and natural amenities.
- Prepare and implement a masterplan for South Park.
- Prepare a strategy for the long-term improvement and enhancement of the Salthill Promenade.
- Develop equipped child play facilities in accordance with the Council's annual playground programme.
- Continue with the inventory of trees of all suitable varieties including fruit trees and identify locations for new tree planting.
- Provide for allotments/community gardens in the city subject to Council approval.
- Continue the preparation of a list of existing public rights of way in the city and review annually.
- Develop the following guidelines in relation to new development:
  - Best practice advice for design of homezones.
  - Best practice advice for open space.
  - Best practice advice for roof gardens.
  - Prepare a master plan for Lough Atalia to include the upgrading of the amenity park, ecological areas and development of sailing activities
  - Undertake a feasibility assessment to identify the type and optimum locations for multipurpose synthetic/ floodlit playing facilities to include play facilities for the 0-6 age group.
  - Develop a community centre/sports hall, a swimming pool with associated ancillary facilities on a phased basis adjoining and linked with the existing changing rooms at Cappagh Park and Doughiska on RA zoned lands.

- Develop and upgrade Millars Lane for passive recreation.
- Prepare and implement a plan which identifies suitable parts of the road and street network for the planting of trees.

### Medium/Long Term

- Prepare an amenity environs plan in conjunction with Galway County Council to include greenway linkages to Barna, Oranmore and Tonabrocky.
- Explore greenways to link Merlin Woods City Park, Murroogh LAP area from Ballyloughaun and Liam Mellows GAA lands to Lough Atalia with the coastal greenway.
- Explore the potential for developing lands adjacent to Menlough Castle incorporating Menlough Woods as a park.
- Investigate the potential of providing public services for example kiosks or stalls, in or in close proximity to public parks and open spaces and along the coastal greenway.
- Explore the potential of Heritage Council grants and other funding opportunities for the development of greenways in the city.
- Develop a number of greenways within the city including:
  - Coastal walk extending from Galway Docks to Roscam Point.
  - Riverside walk along the western side of the River Corrib in conjunction with NUIG to terminate at the access road beside the running track which links Galway/Moycullen Road at Dangan to the River Corrib.
  - Riverside walk from the Dyke Road to NUIG lands on the opposite side of the River Corrib using the piers of the Old Galway - Clifden Railway Line.
  - Riverside walk along the eastern side of the River Corrib from the Dyke Road to the pier at Menlough. A deviation from the route indicated on the Development Plan map may be permitted, any alternative alignments shall maximise amenity benefits.
  - Riverside walk along the northern side of the Terryland River from the Dyke Road to the point where it disappears underground at Glenanail to the rear of Glenburren Park.
  - Pedestrian walk along the railway line from Eyre Square to Curragrean.
  - Riverside walk along western side of the River Corrib from O'Briens Bridge to Wolfe Tone Bridge.
- Develop and upgrade the two existing boreens at Cappagh and Ballyburke for passive recreation.
- Develop pedestrian and cycle ways at Knocknacarra, Doughiska and Castlegar linking residential areas with existing and future services and amenities.
- Retain car parking of approximately 30 car parking spaces for amenity purposes east of Merlin Park Woods at Doughiska.
- Initiate the preparation of a river conservation management plan in consultation with the relevant stakeholders. The purpose of the Plan will include examination of best locations for the development of water based activities that will minimise environmental and ecological impacts.
- Investigate possible locations for the provision of municipal water based recreation infrastructure along the River Corrib.
- Undertake a feasibility study for an iconic facility to provide facilities for land or water based sporting activities.
- Identify active recreation facilities for the elderly with particular reference to indoor/outdoor bowling.
- Identify and provide active recreation facilities in the vicinity of Castlegar/Bothar an Coiste to serve existing and future populations.
- Facilitate the development of a permanent ice-rink within the city subject to identification of a suitable site.

## Chapter 5: Enterprise and Employment

### Policy 5.2 Enterprise

- Promote and facilitate sustainable employment creation and opportunities in the city by ensuring the availability of an adequate supply of serviced land at appropriate locations for industrial development.
- Promote facilities and foster the development of indigenous industry as a fundamental and integral part of the local economy and work with all relevant agencies in this regard.
- Co-operate with IDA Ireland, Enterprise Ireland, Galway County Council, Higher Institutes of Education, FAS and other agencies in meeting the needs of industry, training and innovation, where appropriate.
- Co-operate with Galway County Council in the servicing of strategic employment opportunities at designated business and technology parks on lands outside of the city boundary, in particular with regard to strategic and sustainable transportation services.
- Allow the co-location of compatible employment opportunities adjacent to residential areas, having regard to traffic safety, residential amenity and environmental considerations.
- Allow employment opportunities of a scale appropriate to serve the community within district, neighbourhood and local centres.
- Promote the continued development of enterprise opportunities at Ragoon/Knocknacarra.
- Continue to support and facilitate the development of start-up enterprise units for local indigenous enterprises throughout the city.
- Support and promote the development of the arts, culture and film industry recognising the particular value of these activities in the city.
- Improve access, in particular sustainable modes of transport to major areas of employment.
- Promote and support the sustainable development of different office types at designated locations having regard to the prime role of the city centre.
- Allow the development of childcare facilities near/within developments, which provide employment opportunities throughout the city.
- Promote further sustainable development of the Harbour Enterprise Park and related harbour activities, subject to acceptability from the appropriate authorities.
- Support further sustainable development of Galway Harbour subject to environmental, visual, economic viability and transportation considerations.
- Maintain an adequate supply of land for industry of light and mixed industrial purposes in order to ensure a diverse range of employment opportunities in the city and to allow for start-up indigenous enterprises of this nature.
- Acknowledge and support the health and education institutions in the city and facilitate appropriate related developments and expansions.
- Facilitate and encourage sustainable tourism development, which is based on and reflects the city's distinctive history, culture and environment.
- Support and review the aims of the Galway City and County Tourism Committee's Developing Sustainable Tourism in Galway - A Framework for Action 2003–2012 and GCDB strategy Gaillimh Beo agus Bríomhar, where appropriate.
- Facilitate innovative work practices such as 'live-work' units where they do not negatively impact on residential amenity.
- Support the development of cruise line tourism acknowledging the significant contribution and diversity it could add to the local and regional tourist economy.

**Policy 5.3 Retail**

- Take into consideration the Retail Planning Guidelines for Planning Authorities (2005) and the retail strategy for the city in conjunction with other policies in the Plan when assessing applications for retail proposals.
- Promote and protect the city centre as the prime retail area in the city and the western region.
- Adopt the retail hierarchy for the city as identified in the strategy and allow for retail development that is of a scale and nature with prescribed functions and roles.
- Allow for expansion of the city centre in accordance with the sequential test approach, in particular onto the Ceannt Station area, Harbour area and onto the Headford Road where appropriate.
- Protect existing district centres, neighbourhood centres and local centres.
- Encourage the provision of local shopping facilities in accordance with the neighbourhood concept and in compliance with policies for residential areas.
- Assess new major development in accordance with prescribed criteria and in the context of the retail strategy for the city.
- Have regard to the guidance in the Retail Planning Guidelines for Planning Authorities (2005) for specific retail formats.
- Ensure that the range of retail goods and services on retail park sites are restricted to sales of a bulky nature.
- Carry out a joint retail strategy review in conjunction with Galway County Council within the period of the City Development Plan and make variations to the City Development Plan if necessary as a result of such study.

**Chapter 6: Community and Culture****Policy 6.2 Social Inclusion**

- Proactively promote all forms of social inclusion, where feasible in land use planning particularly in the built environment and public realm, housing, community facilities, employment opportunities, public transport and accessibility.
- Support and promote the various aims of the Council to give effect to the Barcelona Declaration.
- Support the development, provision and improvement of essential facilities and amenities within communities in the city.
- Support the objectives of the action plan/work programme of the Social Inclusion Unit and RAPID.
- Continue to encourage active public participation in the Planning process.
- Promote the concept of 'life-time adaptability' and access for all in housing design.
- Facilitate the implementation of the Housing Strategy in particular with regard to reducing undue segregation and the provision of special needs accommodation.
- Co-operate with the Access for All Committee and other organisations representing people with disabilities to provide equal access for all citizens particularly in the area of housing, transport, built environment and the public realm within the city.



**Policy 6.3 Community and Cultural Facilities**

- Facilitate balanced and equitable provision of community services and cultural facilities throughout the city, through policies, zoning objectives and specific designations.
- Impose development levies under the development contribution scheme where appropriate, to assist in the provision of community facilities.
- Encourage and facilitate the provision of a range of community services, including local health services, services for the elderly, places of worship and cultural facilities.
- Promote the development of health facilities in the city having regard to Galway's designation as a national centre of excellence.
- Ensure that proposed cultural and community developments are designed and laid out to accommodate maximum opportunities for different transport modes.
- Encourage design flexibility in buildings of community and cultural use, so that the buildings can be adapted in ways, which allow for a diversity of different uses and accessibility for all, including people with disabilities.
- Co-ordinate with other service providers in the provision of community and cultural facilities.
- Encourage and facilitate the provision of community and cultural facilities and local services of a nature and scale appropriate to serve the needs of the local community, in tandem with the development of residential areas.
- Explore innovative ways to deliver community and cultural facilities and examine best practice models of subsequent management.
- Support the development of primary health care facilities within appropriate locations in residential areas.

**Policy 6.4 Educational Facilities**

- Ensure that sufficient lands are designated and reserved for the establishment, improvement or expansion of education facilities within the city adhering to the recommendations outlined in The Provision of Schools and the Planning System, A Code of Practice for Planning Authorities (2008).
- Support the future improvement and sustainable expansion of NUIG and GMIT, recognising their contribution to the continued development of Galway as a Gateway.
- Safeguard lands within residential areas for educational purposes in order to serve existing and future need.
- Ensure that the design of all educational establishments incorporate facilities for sustainable transport measures and public transport.
- Ensure that safe and easy access for people with disabilities is incorporated in the design of all educational developments.
- Support the further development and diversification of third level education institutions in the city, including the promotion of knowledge based industry-linked research and development facilities.

**Policy 6.5 Childcare Facilities**

- Facilitate the development of childcare facilities, including after school services, at a number of suitable locations, such as, within residential areas, places of employment, city centre, district and neighbourhood centres, in the vicinity of educational and community establishments and adjacent to public transport nodes.
- Contribute to the provision of childcare facilities by requiring that such facilities be provided in conjunction with residential developments over 75 dwelling units.
- Consider alternative arrangements where it can be clearly established that adequate childcare facilities exist.

**Policy 6.6 Burial Grounds**

- Maintain existing burial grounds and provide for new cemeteries and associated services such as a crematorium to serve the city.

**Policy 6.7 Institutional Lands**

- Facilitate and promote the development of institutional land within the city.
- Where it is demonstrated that certain institutional lands are surplus to requirements, the Council will consider residential use or uses compatible with that of adjoining zones or specifically require that the lands be retained for alternative institutional uses.
- Retain the existing open character of institutional lands where residential development is permitted and reserve a minimum 20% of the total site area for communal open space.
- Promote the retention of public access to these lands where this has been traditionally enjoyed or where there is a significant amenity associated with the lands.

**Policy 6.8 Arts and Cultural Heritage**

- Facilitate and encourage the provision of new and improved arts and culture facilities in the city including in district or neighbourhood centres where appropriate.
- Support and facilitate the aims of the Galway City Arts Strategy 2010-2013 and the actions of the annual City Council arts programme.
- Ensure that all construction projects undertaken by the Council which are supported by government funding be considered for the 'Per cent for Art' Scheme.
- Require large-scale developments throughout the city to incorporate works of public art.
- Require arts and culture infrastructure to be integrated into large scale development on key sites in the city centre area which include lands at Headford Road, Ceannt Station, and the Inner Harbour.
- Support the development of a municipal arts gallery, concert hall, science museum and school of performing arts in the city.
- Support the establishment of a school of music within the city, in conjunction with all interested bodies.
- Develop and facilitate the development of cultural facilities in Lower Merchants Road.
- Facilitate the reopening of Taibhdhearc Na Gaillimhe at its current location on Middle Street.
- Facilitate the refurbishment and re-opening of Comerford House.
- Support the provision of a site/building for a Western Writers' Centre.
- Support the provision of a dedicated dance space within the city.

**Policy 6.9 Gaeltacht**

- Protect and promote the distinctive Gaeltacht cultural and linguistic heritage of the city.
- Encourage the use of Irish/bilingual signage in the commercial and public realm.
- Promote the use of the Irish language in the naming of all new residential developments, public roads and parks.
- Facilitate the development of infrastructure, which supports the promotion of the cultural and linguistic heritage of the city, where appropriate

### 6.10 Specific Objectives

- Facilitate the development of community and educational facilities at Castlegar, Doughiska, Knocknacarra and Ballinfoile.
- Establish and develop new cemetery sites to serve the city, which will accommodate associated services such as a crematorium and approach cemetery design with an emphasis on landscaping and natural amenities.
- Reserve lands at Knocknacarra, Ballinfoile and Doughiska for the purposes of neighbourhood centre uses, which will accommodate a mix of uses primarily of a public/community nature. In the event that these lands become unnecessary, they can be used for uses compatible with the R residential land use zoning.
- Identify and provide a site/building for the establishment of a school of music within the city, in conjunction with the VEC and all interested bodies.

## Chapter 7: Built Heritage and Urban Design

### Policy No. 7.2 Built Heritage

- Encourage the protection and enhancement of structures listed in the Record of Protected Structures.
- Ensure new development enhances the character or setting of a protected structure.
- Avoid protected structures becoming endangered by neglect or otherwise by taking appropriate action in good time.
- Consider the inclusion in the Record of Protected Structure buildings of special interest.
- Consult with the Department of Arts, Heritage and the Gaeltacht regarding any planning applications relating to protected structures and national monuments
- Implement proactive measures to encourage the conservation of protected structures.
- Prepare and implement management plans for the conservation and enhancement of the city's Architectural Conservation Areas.
- Encourage the rehabilitation, renovation and re-use of existing structures that contribute to the character of the city.
- Facilitate the use of Mutton Island Lighthouse as a heritage attraction with public access.
- Facilitate the restoration and conservation of the waterworks building at Terryland Plant, including the Crossley engine.

### Policy 7.3 Archaeology

- Protect the archaeological heritage of the city.
- Ensure that proposed development within the designated city centre Zone of Archaeological Potential is not detrimental to the character of an archaeological site or its setting.
- Have regard to the archaeological recommendations of the DAHG on any planning applications.
- Endorse the sustainable use of archaeological heritage as an educational and cultural resource and promote public awareness of the archaeological heritage of the city.
- Require the surveying, recording or excavation of archaeological heritage during the development process where appropriate.
- Secure preservation in-situ of the historic medieval city walls.
- Seek the preservation in-situ or, at a minimum, preservation by record of archaeological sites/monuments included in the Record of Monuments and Places.

- Ensure all developments, including those with the potential to impact on riverine, inter-tidal and sub-tidal environments require an archaeological assessment prior to works being carried out.
- Promote the protection of the varied industrial heritage of the city and encourage greater appreciation and public awareness of this heritage.

#### **Policy 7.4 Urban Design**

- Encourage high quality urban design in all developments.
- Improve qualitative design standards through the application of design guidelines and standards of the Development Plan.
- Ensure that high quality urban design contributes to the creation of urban regeneration in the city.
- Encourage innovation in architecture.
- Prepare local area plans for Ardaun, Murroogh and the selected Headford Road area which provide an urban design framework to contribute to the development of sustainable and vibrant living environments.
- Encourage the use of design statements and masterplans/framework plans for large-scale development where appropriate.
- Enhance residential areas such as Claddagh, Shantalla, Bohermore and Mervue through the implementation of environmental improvement schemes.
- Improve the public realm and residential amenities of Woodquay, Bowling Green, Raven Terrace, Whitehall and Seapoint by the implementation of civic improvement schemes.
- Progress the implementation of the civic improvement scheme for the Small Crane.
- Prepare Shopfront Design Guidelines which adhere to good principles of urban design, subject to adoption by the Council.
- Revise policy in relation to tables and chairs as defined under Section 254 of the Planning Act 2000 and include for approach to associated features including canopies. The provision of canopies shall be part of an overall plan which shall take into account standard design, heritage, streetscape and amenity value and traffic management, subject to adoption by the Council.
- Prepare a Building Heights Study for the city subject to adoption by the Council.

### **Chapter 8: Environment and Infrastructure**

#### **Policy 8.3 Energy and Building**

- Increase the energy performance of future buildings in the city by encouraging energy efficiency and energy conservation in the design and construction of development.
- Encourage new development to limit greenhouse gas emissions and make use of opportunities for renewable and low carbon energy including through design, layout, orientation and use of materials.
- Encourage high standards of energy conservation and improved energy performance in all existing and planned local authority housing.
- Liaise with the GEAL to develop standards, procedures and targets for energy conservation in the Council's housing stock.
- Encourage consideration of orientation in the siting, topography and aspect in the design of future housing developments, in order to avail of passive solar gain.
- Continue to support the installation of improved energy conservation measures.

- Ensure that the development of renewable energy and its associated infrastructure avoids negative impacts on Natura 2000 sites and adheres to the requirements of Article 6 of the Habitats Directive.

#### **Policy 8.4 Renewable Energy Sources**

- Promote and facilitate the development of renewable sources of energy within the city, and support national initiatives, in conjunction with GEAL and other agencies, which offer sustainable alternatives to dependency on fossil fuels and a means of reducing greenhouse gas emissions, subject to the avoidance of unduly negative visual and environmental impacts.

#### **Policy 8.5 Flood Risk**

- Have regard to the findings and relevant identified actions of the future Corrib CFRAM Study when available and incorporate into the Development Plan, where appropriate.
- Review flood risk in the city and carry out detailed site-specific FRA for locations of potential flood risk, where necessary.
- Require development applications in the locations of potential flood risk, to provide flood impact assessment and flood risk minimisation and mitigation measures, to facilitate assessment, in the interest of reducing the risk of flooding.
- Prohibit the location of structures other than structures with essential links to the waterway within 10 metres of the River Corrib in G agricultural zoned lands.
- Ensure flood risk is addressed in any future local area plans, framework plans and masterplans in the city.
- Facilitate sustainable flood defense and coastal protection works in order to prevent flooding and coastal erosion, subject to environmental and visual considerations.
- Ensure the use of Sustainable Urban Drainage Systems (SUDS) wherever practical, in the design of development to reduce the rate and quantity of surface water run-off.
- Ensure new developments, where appropriate, are designed and constructed to meet the flood design standards outlined under Section 11.27 Flood Risk.
- Have regard to the findings and recommendations of the imminent Irish Coastal Protection Strategy Study of the West Coast, when available and incorporate into the Development Plan, where appropriate.
- Continue to protect the coastal area and foreshore and avoid inappropriate development in areas at risk of coastal erosion and/or would cause and escalate coastal erosion in adjoining areas.
- Protect and maintain, where feasible, undeveloped riparian zones and natural floodplains along the River Corrib and its tributaries.

#### **Policy 8.6 Control of Major Accident Hazards (Seveso II Directive)**

- Consult with the Health and Safety Authority (also known as the National Authority for Occupational and Health Standards) when changing any policies/objectives and assessing any proposed relevant developments in or in the vicinity of sites identified under the Control of Major Accident Hazards (Seveso II Directive), in order to prevent major accidents involving dangerous substances and to limit their consequences to the environment and community.
- Ensure that major developments comply with the requirements of the Galway City Major Emergency Plan.

**Policy 8.7 Air Quality and Noise**

- Maintain air quality to a satisfactory standard by regulating and monitoring atmospheric emissions in accordance with EU directives on air quality, by promoting and supporting initiatives to reduce air pollution, by increasing the use of public transport, developing urban woodland, encouraging tree planting and conserving green open space.
- Ensure the design of development incorporates measures to minimise noise levels in their design and reduce the emission and intrusion of any noise or vibration which might give reasonable cause for annoyance, where appropriate.
- Consider the land use planning mitigation and protection measures and the strategic noise mapping of the city in the Galway City Noise Action Plan 2008-2013 in the assessment of relevant development applications, where appropriate.
- Implement noise reduction measures as outlined in Galway City Noise Action Plan 2008-2013, with priority to those areas designated as worst affected, namely along the existing N6 (including Ros Caoin).

**Policy 8.8 Light Pollution**

- Ensure the design of external lighting minimises the incidence of light pollution, glare and spillage into the surrounding environment and has due regard to the visual and residential amenities of surrounding areas.

**Policy 8.9 Waste Management Policy**

- Secure the provision of waste management facilities and infrastructure with appropriate provision for minimisation, recovery and recycling of waste and to regulate waste operations in a manner which reflects the 'polluter pays' and 'proximity' principles with particular emphasis on large waste producers, in accordance with the objectives of the Connacht Waste Management Replacement Plan 2006-2011, except in relation to incineration.
- Support the objectives and targets of the Connacht Waste Management Replacement Plan 2006-2011 relating to Galway City and any subsequent Regional Waste Management Plans thereafter, except in relation to incineration.
- Ensure the sustainable siting of waste facilities in relation to existing and potential surrounding landuses, transportation and environmental considerations.
- Encourage the development of a C&D waste recycling facility and other measures in the city for the sorting and grinding of C&D waste for reuse, subject to appropriate environmental and planning considerations.
- Ensure that planning proposals for new medium and large-scale developments, such as housing estates, retail and industrial developments include C&D waste management plans.
- Ensure that adequate recycling facilities are provided within the city, including where those are required in association with the layouts of new residential, industrial and commercial developments where appropriate and comply with the requirements of the Environment Section of the Council.
- Consider redundant quarry sites as suitable locations for the undertaking of C&D waste recovery, subject to appropriate environmental and planning considerations.
- Promote the implementation of the City Council Litter Management Plan and other litter management initiatives in order to minimise and control the extent of litter pollution in the city.
- Ensure that planning proposals on contaminated lands include appropriate remediation measures.
- Continue to promote waste prevention and minimisation.

- During the lifetime of this Plan the City Council will provide, where feasible and subject to resources, a resource recovery park within the city boundary.

**Policy 8.10 Drainage**

- Provide, in a sustainable manner, a drainage collection/treatment system capable of meeting the needs of domestic, commercial and industrial users in the city. This shall include the long term operation, maintenance and upgrading of the Mutton Island WWTW and investigations and implementation of optimum long-term drainage solutions and the progression of the Galway East WWTW.
- Implement the requirements of the EU Water Framework Directive with regard to a sustainable approach to water services management by fully internalising the costs of water usage and wastewater generation in respect of the non-domestic sector.
- Preserve and improve the effectiveness and performance of wastewater drainage infrastructure within the city.

**Policy 8.11 SUDS**

- Ensure the use of Sustainable Urban Drainage Systems (SUDS), and sustainable surface water drainage management, wherever practical in the design of development to enable surface water run-off to be managed as near to its source as possible and achieve wider benefits such as sustainable development, water quality, biodiversity and local amenity.

**Policy 8.12 Water Supply and Water Quality**

- Provide in a sustainable manner a water supply system capable of meeting the needs of domestic, commercial and industrial users in the city.
- Achieve and maintain high standards for drinking water and water quality in the city, in compliance with EU Directives.
- Prepare a strategic long-term report on the water requirements of the city and its environs over the next twenty years and implement the measures arising in order to provide a sustainable long-term solution to address future water supply needs.
- Have regard to the actions of the Western River Basin District Management Plan 2009-2015 in order to promote and achieve a restoration of good status, reduce chemical pollution and prevent deterioration of surface, coastal and groundwater quality, where appropriate.
- Implement the monitoring and management actions of the Bathing Water Quality Regulations 2008 in securing and retaining good quality bathing water.
- Maintain and extend the Blue Flag status in regard to water quality, infrastructure and amenity provision with regard to the beaches in the city.
- Minimise and control discharges to inland surface water bodies, groundwater and coastal waters to prevent water pollution.
- Continue to implement the requirements of the EU Water Framework Directive with regard to a sustainable approach to water services management by fully internalising the costs of water usage and wastewater generation in respect of the non-domestic sector.
- Encourage all significant water users to use best practices in water conservation and continue to promote water conservation measures in all new development in the city.
- Ensure any development within the aquatic environment shall be carried out in consultation with prescribed bodies and with adherence to their guidelines.
- Protect the city's groundwater resource and ensure that any development, which threatens the quality of the city's groundwater, will not be permitted.



**Policy 8.13 Telecommunications**

- Support the development and expansion of telecommunication infrastructure (including the broadband network) within the city where appropriate, subject to environmental and visual considerations.
- Ensure that development for mobile phone installations take cognisance of the DEHLG Planning Guidelines for Telecommunications Antennae and Support Structures, 1996, so that any potential environmental impacts associated with installations are minimised.
- Encourage the siting of new mobile phone installations to follow the hierarchy of suitable locations proposed in the DEHLG guidelines. When a number of other possibilities have been exhausted, masts may be erected within or in the immediate vicinity of residential areas.
- Ensure that developers of masts facilitate the co-location of antennae with other operators in order to avoid an unnecessary proliferation of masts. Where this is not possible, operators will be encouraged to co-locate so that masts and antennae may be clustered.

**Policy 8.14 Energy and Associated Infrastructure**

- Support the infrastructural renewal and development of electricity and gas networks in the city, underground where at all possible, including the overhead high voltage lines necessary to provide the required networks.
- Support the implementation of Grid 25 – A Strategy for the Development of Ireland’s Electricity Grid for a Sustainable and Competitive Future (Eirgrid 2009) to deliver a sustainable electricity system and ensure transition to a low-carbon economy.
- Ensure that the infrastructural renewal and development of electricity networks and natural gas works avoid negative impacts on Natura 2000 sites and adhere to the requirements of Article 6 of the Habitats Directive.

**8.15 Specific Objectives****Drainage Infrastructure**

Implement and complete on a phased basis the Galway Main Drainage Stage 3 for Galway City and Environs in conjunction with Galway County Council.

**Water Infrastructure and Quality**

Prepare a strategic report on the long-term water requirements of the city and its environs over the next twenty years and commence its implementation on a phased basis, including for improvements in water supply and water infrastructure within the city and surrounding areas.

**Waste Management**

Facilitate the objectives of the Connacht Waste Management Replacement Plan 2006-2011 relative to Galway City, excluding incineration.

**Village Envelopes**

Investigate and respond to required improvements in the drainage and water infrastructure in the village envelopes as part of the review of the infrastructural investment programme.

### **Flood Risk Management**

Prepare a detailed site-specific FRA for any identified potential flood risk areas, taking into consideration findings of the CFRAM Study when completed.

## **Chapter 9: City Centre / Area Based Plans**

### **Policy 9.2 City Centre**

- Maintain and enhance the role of the city centre as the dominant commercial area of the city.
- Encourage the expansion of the city centre into lands at Ceannt Station and the Inner Harbour.
- Control the proliferation of uses which could lead to the deterioration of retailing on the principal shopping streets.
- Control the negative impact caused by dominance, due to proliferation or scale, of particular uses.
- Encourage a living city by requiring a residential content in new developments.
- Maintain and enhance the environmental quality of the city centre with the overall aim of ensuring an attractive user-friendly environment.
- Ensure new developments complement the character of the city centre by the use of specific design elements.
- Facilitate the redevelopment of the Inner Harbour for mixed use development.
- Improve the public realm and residential amenities of Woodquay, Bowling Green and Raven Terrace by the implementation of improvement schemes.
- Progress the implementation of a civic improvement scheme for the Small Crane.

### **Policy 9.3 Salthill**

- Enhance Salthill's role as a leisure, recreation and coastal amenity area for the city and service centre for the surrounding residential neighbourhoods.
- Continue to improve the recreational quality of the area by the implementation of environmental and coastal improvement schemes and the preparation of a strategy for the long term development and enhancement of the promenade.
- Ensure high quality in the design of new developments which has regard to its context.
- Enhance the public realm of Salthill including the implementation of an environmental improvement scheme in the vicinity of Seapoint and Salthill Promenade.

### **Policy 9.4 Village Envelopes/Areas**

- Strengthen the character of specified villages through encouraging appropriate development.
- Protect and enhance the character and amenity of Menlough and prepare a plan for the area, together with flood protection measures.
- Reinforce the identity of Castlegar through protection and enhancement of existing amenities and through provision of additional community facilities.

### **Policy 9.5 Ardaun**

- Develop the overall area of Ardaun, in conjunction with Galway County Council, in a strategic and co-ordinated manner that will contribute to the integration of land use, urban form and structure, transportation and natural heritage to create a sustainable living environment.
- Advance the development of Ardaun in consultation with Galway County Council through the preparation of a Local Area Plan Phase 1, which consists of designated lands within the city boundary taking the strategic needs of the overall city and county area into consideration.

- Support the development of Ardaun Phase 2 which consists of the balance of lands within the county area, ensuring co-ordination of key elements such as land use, infrastructure and sustainable transportation and the timely co-ordination of development phasing.

#### **Policy 9.6 Murroogh**

- Develop the Murroogh area in accordance with a local area plan which will reserve a substantial bank of land for recreational purposes, allow for public access and allow for mixed-use development which will create a sustainable neighbourhood and maximise the sustainable development of appropriate recreation facilities.

### **9.7 Specific Objectives**

#### **City Centre**

- Require the preparation of a masterplan/framework plan for the Ceannt Station site.
- Require the preparation of a masterplan/framework plan for the Inner Harbour.
- Prepare environmental improvement schemes for Woodquay, Bowling Green and Raven Terrace areas.
- Progress the implementation of the Small Crane Square Civic Improvement scheme in conjunction with the environmental improvement scheme for 'The West' area.
- Headford Road
- Prepare a local area plan for the Headford Road area (south of the Bodkin Roundabout).

#### **Salthill**

- Prepare a strategy for the long-term development and enhancement of Salthill Promenade.
- Continue to develop and enhance the coastal walkway from South Park to Silverstrand including the coastal walk extending from Silverstrand to Sailin in conjunction with approved coastal protection works.
- Carry out an environmental improvement scheme in the vicinity of Seapoint.
- Upgrade public facilities including provision of outdoor/indoor showers, changing facilities and baby changing facilities.

#### **Village Envelopes/Areas**

- Prepare a plan for the Menlough area. This will include guidance on new design and conservation and will explore the amenity potential of the area.
- Facilitate the restoration of Menlough Castle, for public usage, excluding private residential use, to allow for new uses, in particular cultural/recreation uses, compatible with the restoration of the building to best conservation practice where it can be demonstrated that there will be no adverse impacts on the integrity of Natura 2000 sites.
- Explore the potential for the development of a park on lands adjacent to Menlough Castle. Castlegar
- Prepare a plan for the Castlegar area in consultation with local residents within 3 years following adoption of the Development Plan. Ardaun
- Prepare a local area plan for Ardaun Phase 1.

#### **Murroogh**

- Prepare a local area plan for Murroogh.

**Chapter 10: Housing Strategy****Policy 10.1 Land Requirements for the Provision of Social and Affordable Housing**

- Require as provided for under Section 95 of the Planning and Development Act 2000, that 20% of land zoned for residential use or for a mixture of residential and other uses shall be reserved for the provision of social/affordable housing.

**Policy 10.2 The Ratio of Social and Affordable Required**

- Apply a ratio of 4:1 for the provision of social (4) and affordable (1) housing. In this regard, the development of shared ownership units are considered as social housing where they are being provided for applicants on the local authority housing waiting list or existing local authority tenants.
- Allocate the 20% provision in such a way as to encourage home ownership in the designated IAP areas. This is in accordance with the provisions of the IAP for Westside, Ballinfoile, and Ballybane, where the Council aims to increase the proportion of the housing stock that is in owner occupation in these areas and encourage greater social balance.
- Where developments solely provide for the accommodation of special needs groups, there may be no requirement for the provision of land/other for social and affordable housing.

**Policy 10.4 House Types and Sizes**

- Ensure that an appropriate mixture of house types and sizes are provided in residential development to cater for different sectors of the housing market, in particular discourage excessive amounts of small one bedroom units in housing schemes.

**Policy 10.5 Special Needs Accommodation**

- Ensure the provision of accommodation for the elderly. These units will be a mix of single, two-bedroom and where appropriate three-bedroom units to cater for a variety of elderly households and provide space for the accommodation of a carer where necessary.
- In the location of such facilities, the Council is aware of the importance of social mix and accommodation of the elderly in communities and areas with which they are familiar. The provision of elderly housing in close proximity to shops, churches, public transport and community facilities will be encouraged.
- Liaise, encourage and facilitate the voluntary and co-operative housing sector in the provision of dwelling units for the elderly.

**Policy 10.6 Alternative Accommodation for small sized households**

- Ensure that the Council's housing stock is not under-utilised. In this regard the Council will encourage and facilitate Council tenants where feasible to relinquish their tenancy in larger units in return for more appropriate accommodation.

**Policy 10.7 Accommodation for Persons with Special Needs**

- Require the reservation of units for the disabled in consultation with the voluntary sector, where there exists a clear need for such accommodation.

**Policy 10.8 Homeless/Crisis Accommodation**

- Continue to work with the voluntary and public sector in the provision of emergency and crisis accommodation for the homeless at suitable locations throughout the city. In this regard, the Council will have regard to the deliberations and actions of the Homeless Forum and the provisions of the Homeless Strategy.

**Policy 10.9 Travelling Community**

- Implement and monitor the operation of the Traveller Accommodation Plan 2009-2013 and subsequent plans. The Council will meet its obligations regarding the provision of adequate and suitable accommodation for the Travelling community through consultation with Travellers, the general public, and the local Traveller Accommodation Consultative Committee. The Council will continue to meet its targets for the completion of Traveller specific accommodation as outlined in the programme and subsequent plans.

**Policy 10.10 Ministerial Guidelines on Housing**

- Take into consideration the following policies and guidelines when considering housing developments both public and private:
  - Guidelines for Planning Authorities on Sustainable Residential Development In Urban Areas (2008)
  - Urban Design Manual :A Best Practice Guide (2008)
  - Sustainable Urban Housing : Design Standards for Apartments (2007) Delivering Homes Sustaining Communities Statement on Housing Policy (2007)

**Chapter 10: Land Use Zoning Objectives and Development Standards and Guidelines**

- Prepare an environmental improvement scheme for the Mervue residential area.
- Prepare environmental improvement schemes for Claddagh, Shantalla and Bohermore residential areas.
- Prepare a regeneration plan for the open space areas of Ballybaan.
- Finalise the draft regeneration plan for Ballinfoile Park entitled 'A Better Ballinfoile' and implement actions where feasible and subject to funding.
- Develop best practice advice for the design of homezones.
- Prepare an environmental improvement scheme for the area known as 'The West' that incorporates submissions already made by residents.
- Prepare an enhancement scheme for Whitehall.

## Appendix IV – Galway County Development Plan 2015-2021: Policies and Objectives

### Chapter 1: Introduction

#### **Strategic Aim 1 - Promote Regional Development**

Promote regional development and growth through harnessing the economic and employment potential of the competitive advantages of County Galway such as its strategic location, quality of life, landscape, heritage and natural resources, in a sustainable and environmentally sensitive manner.

#### **Strategic Aim 2 - Environmental Protection**

Afford suitable protection to the environment and natural resources of the County and ensure the fulfilment of environmental responsibilities.

#### **Strategic Aim 3 - Living Landscapes**

Recognise the importance of living landscapes where people live, work, visit and enjoy while ensuring they are managed in a sustainable and appropriate manner.

#### **Strategic Aim 4 - Balanced Urban and Rural Areas**

Prioritise development within the Hub town of Tuam, the Galway Metropolitan Area, Ballinasloe, the key towns and smaller towns, villages and settlements within the County, while supporting the role of the rural area in sustaining the rural based economy.

#### **Strategic Aim 5 - Inclusive Communities**

Encourage and support the development of inclusive communities which engage and include all members of society facilitating equal physical, social and cultural access and integration.

#### **Strategic Aim 6 - Integrated Development**

Ensure a more sustainable and integrated concept of development with regard to land use, transportation, water services, energy supply and waste management over the lifetime of the plan.

#### **Strategic Aim 7 - Sustainable Transportation**

Minimise travel demand and promote the increase of sustainable mobility throughout the County.

#### **Strategic Aim 8 - An Ghaeltacht**

Promote An Ghaeltacht as an Irish speaking community, recognising its importance locally, nationally and internationally and endeavour to enhance, sustain and protect the remaining Irish speaking communities of An Ghaeltacht, where possible.

#### **Strategic Aim 9 - Infrastructural Projects**

Facilitate the development of infrastructural projects, which will underpin sustainable development throughout the County and region during the plan period.

**Strategic Aim 10 - Heritage**

Enhance and protect the built heritage and natural environment, including buildings, archaeology, landscape and biodiversity, within the County.

**Strategic Aim 11 - Climate Change Adaptation**

Engage in efforts to limit the human induced causes of climate change and take account of climate change in planning and delivering work programmes. Engage in efforts to mitigate and adapt to climate change and integrate climate change considerations in planning and delivering work programmes.

**Chapter 2: Spatial Strategy, Core & Settlement Strategy****Objective DS 1**

It is the overarching objective of Galway County Council to support and facilitate the sustainable development of County Galway in line with the preferred development strategy option: Option 4 – To Develop the Hub town of Tuam, supporting the Gateway and Key Towns while Encouraging the Development of Other Settlement Centres and Appropriate Development in Rural Areas, which will allow County Galway to develop in a manner that maintains and enhances the quality of life of local communities, promotes opportunities for economic development, sustainable transport options, social integration, and protects the cultural, built, natural heritage and environment while also complying with relevant statutory requirements.

**Objectives DS 2 – Galway Transportation and Planning Study Area (GTPS)**

a) Continue to recognise the defined Galway Transport and Planning Study Area the commuter zone of Galway City, which requires careful management of growth and strong policies to shape and influence this growth in a sustainable manner.

b) Support a review of the Galway Transportation and Planning Study during the lifetime of the Plan, in co-operation with Galway City Council. Consideration of the inclusion of a Strategic Transport Assessment shall form part of this review.

**Objectives DS 3 – Integrated Land Use and Sustainable Transportation**

Integrate land use planning and sustainable transportation planning, promote the consolidation of development, encourage sustainable travel patterns by reducing the need to travel particularly by private transport, while prioritising walking, cycling and public transport.

**Objective DS 4 – Supporting and Securing Investment**

Galway County Council shall seek to secure investment or support investment, as appropriate, in the necessary infrastructure to pursue the Spatial, Core and Settlement Strategies as set out in this Plan.

**Objectives DS 5 – Protection and Management of the Assets of the County**

Protect and manage the assets that contribute to the unique visual and environmental character and sense of identity of County Galway, and which underpin tourism, heritage, biodiversity and quality of life



**Objectives DS 6 – Natura 2000 Network and Habitats Directive Assessment**

Protect European sites that form part of the Natura 2000 network (Including Special Protection Areas and Special Areas of Conservation) in accordance with the requirements in the EU Habitats Directive (92/43/EEC), EU Birds Directive (2009/147/EC), the Planning and Development (Amendment) Act 2010, the European Communities (Birds and Natural Habitats) Regulations 2011 (SI No.477 of 2011) (and any subsequent amendments or updated legislation) and having due regard to the guidance in the Appropriate Assessment Guidelines 2010 (and any updated or subsequent guidance). A plan or project (e.g. proposed development) within the Plan Area will only be authorised after the competent authority (Galway County Council) has ascertained, based on scientific evidence, Screening for Appropriate Assessment, and/or a Habitats Directive Assessment where necessary, that:

1. The Plan or project will not give rise to significant adverse direct, indirect or secondary effects on the integrity of any European site (either individually or in combination with other plans or projects); or
2. The Plan or project will have significant adverse effects on the integrity of any European site (that does not host a priority natural habitat type/and or a priority species) but there are no alternative solutions and the plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature. In this case, it will be a requirement to follow procedures set out in legislation and agree and undertake all compensatory measures necessary to ensure the protection of the overall coherence of Natura 2000; or
3. The Plan or project will have a significant adverse effect on the integrity of any European site (that hosts a natural habitat type and/or a priority species) but there are no alternative solutions and the plan or project must nevertheless be carried out for imperative reasons for overriding public interest, restricted to reasons of human health or public safety, to beneficial consequences of primary importance for the environment or, further to an opinion from the Commission, to other imperative reasons of overriding public interest. In this case, it will be a requirement to follow procedures set out in legislation and agree and undertake all compensatory measures necessary to ensure the protection of the overall coherence of Natura 2000.

**Objectives DS 7 – Flood Risk Management and Assessment**

Ensure that proposals for developments located within identified or potential flood risk areas, or which may exacerbate the risk of flooding elsewhere, are assessed in accordance with the provisions of the Flood Risk Management Guidelines 2009 (or any updated /superseding document) and the relevant policies, objectives and guidelines within this Plan.

**Objective DS 8 – Climate Change**

Galway County Council shall support the National Climate Change Strategy and follow on document National Climate Change Adaptation Framework Building Resilience to Climate Change 2012, on an ongoing basis through implementation of supporting objectives in this Plan, particularly those supporting use of alternative and renewable energy sources, sustainable transport, air quality, coastal zone management, flooding and soil erosion.

**Objective DS 9 – Projects/Associated Improvement Works/Infrastructure and Appropriate Assessment**

Ensure that proposed projects and any associated improvement works or associated infrastructure relating to renewable energy projects; water supply and abstraction; wastewater and discharges; flood alleviation and prevention; roads, power lines and telecommunications; and amenity and recreation provision are subject to Appropriate Assessment where relevant.

**Objective DS 10 – Impacts of Developments on Protected Sites**

Have regard to any impacts of development on or near existing and proposed Natural Heritage Areas, Special Protection Areas and Special Areas of Conservation, Nature Reserves, Ramsar Sites, Wildfowl Sanctuaries, Salmonoid Waters, Refuges for Flora and Fauna, Conamara National Park, shellfish waters, freshwater pearl mussel catchments and any other designated sites including future designations.

**Objectives DS 11 – Strategic Development Corridors**

Co-ordinate new growth within the transportation and economic corridors throughout the County in order to create more sustainable development patterns and to optimise public and private investment made within in the County and support the appropriate development of the Strategic Economic Corridor.

**Core Strategy Objectives****Objectives CS 1 – Provision of a Settlement Hierarchy**

Galway County Council shall provide a strong and clearly defined hierarchical network of settlements that allow for the sustainable and balanced growth of the County's economy.

**Objectives CS 2 – Development Consistent with the Core Strategy**

Galway County Council shall ensure that developments permitted within the County are consistent with the County population allocations set out in the Regional Planning Guidelines.

**Objectives CS 3 – Economic and Employment Development**

Galway County Council shall encourage the development of mixed-use settlement forms, supporting economic and employment development at appropriate locations, ensuring the provision of a satisfactory quantum of zoned land for employment and industry purposes, and ensuring housing, employment uses and community facilities are located in close proximity to each other and to public transport corridors, where possible.

**Objectives CS 4 – Development of Serviced Lands**

Galway County Council shall ensure that the zoning of lands for residential use is in accordance with the Core Strategy and Settlement Strategy in order to meet the development needs of the County, and ensure that the development of zoned lands is subject to adequate capacity being available in the relevant water and wastewater treatment facilities, prior to or in tandem with the development, in the interest of the protecting water resources in the area.

**Objectives CS 5 – Phasing of Development of Lands** The zoning of residential zoned lands within the urban areas shall be based on a phased, sequential approach with a strong emphasis placed on

consolidating existing patterns of development, encouraging infill opportunities and promoting sustainable transport options.

**Objectives CS 6 – Local Area Plans**

Galway County Council shall seek to prepare Local Area Plans for all settlements which have a population in excess of 1,500 persons either on an individual basis or in an electoral area Local Area Plan.

**Objectives CS 7 – Core Strategy and the Countryside/Rural Areas**

Galway County Council shall recognise the important role of the rural areas within the County and shall protect and support these areas through the careful management of its key assets, including its physical and environmental resources, while supporting appropriate development in a balanced and sustainable manner and in accordance with the relevant policies and objectives set out throughout the Plan.

**Objectives SS 1 – Galway Metropolitan Area**

Galway County Council shall support the important role of Galway City and the Galway Metropolitan Area (which includes the City area and the Electoral Divisions of Oranmore, Bearna, Galway Rural and Ballintemple which are inextricably linked to and function as part of a greater Galway City), as key drivers of social and economic growth in the County and in the wider Western Region and will support the sustainable growth of the strategic settlements, including the future development of February 2014 Written Statement Draft Galway County Development Plan 2015-2021 28 Ardaun and Garraun, within the Galway Metropolitan Area.

**Objectives SS 2 – Ardaun**

Facilitate and support the development of Ardaun in conjunction with Galway City Council.

**Objectives SS 3 – Hub Town : Tuam**

Galway County Council shall promote and secure the development of Tuam, to enable it to fulfil its potential as a hub town, so that it obtains the critical mass necessary to sustain strong levels of economic growth and prosperity, while supporting improvements in connectivity between the Gateway and the Hub, enhancing their complementary status.

**Objectives SS 4 – County Town: Ballinasloe**

Recognise the county town of Ballinasloe as an important driver of growth in the county and support its sustainable development in line with the Core Strategy, in order to sustain its commercial core, retain its population and accommodate additional population and commercial growth.

**Objectives SS 5 – Development of Key Towns**

Support the development of the key towns of the County as outlined in the Core Strategy and Settlement Strategy in order to sustain strong, vibrant urban centres which act as important drivers for the local economies, reduces travel demand and supports a large rural hinterland, while providing a complementary role to the hub town of Tuam and the smaller towns and villages in the County.

**Objective SS 6 – Development of Other Villages**

Protect and strengthen the economic diversity of the smaller towns, villages and small settlements throughout the County, enabling them to perform important retail, service, amenity, residential and community functions for the local population and rural hinterlands

**Objectives SS 7 – Development of Small Settlements**

In the case of smaller settlements for which no specific plans are available, development shall be considered on the basis of its connectivity, capacity (social, cultural and economic) and compliance with the Core and Settlement Strategy, good design, community gain and proper planning and sustainable development.

**Objectives SS 8 – Development of Rural Communities**

Galway County Council shall recognise the important role of rural communities to the sustainable development of County Galway and shall ensure the careful management of development in these areas, having due regard to the relevant policies and objectives set out elsewhere in the Plan.

**Chapter 3: Urban Housing****Policy UHO 1- Land Use Availability**

Ensure that sufficient and suitably located land is zoned for residential development to satisfy development needs within the period of this Plan and in accordance with the Core Strategy/Settlement Strategy.

**Policy UHO 2 - Housing Strategy**

Ensure, in accordance with Part V of the Planning & Development Act 2010 (as amended) that arrangements for the provision of Housing are made in accordance with the current Housing Strategy. Secure the provision of social and specialist housing accommodation where possible, to meet the needs of all households and the disadvantaged sectors in the County, including the elderly, first time buyers, those building their first homes, single person households on modest incomes, people with disabilities, special needs, Travellers etc.

**Urban Housing Objectives****Objective UHO 1 - Housing Strategy**

Secure the implementation of the Housing Strategy 2015-2021, including the implementation of its policies and objectives and requirement to reserve a minimum of 12% of residential development for social and specialist housing.

**Objective UHO 2 - Social and Specialist Housing**

Implement Part V provisions as per the Planning and Development Act 2000 (as amended) and any subsequent amendments to the Part V provision to reflect Government policy.

**Objective UHO 3 - Special Needs**

Facilitate the provision of suitable accommodation for those with special needs through existing and new local authority and voluntary housing as well as the upgrade of existing residences.

**Objective UHO 4 - Homelessness**

Facilitate the provision of suitable accommodation for the homeless and for those in need of emergency accommodation. Objective UHO 5 - Traveller Accommodation Support and implement the Draft Traveller Accommodation Programme 2014-2018 for County Galway (or any updated/superseding document).

**Objective UHO 6 - Elderly Accommodation**

Promote and support the development of housing for older people and those with disabilities, including the concept of independent living and the development of “Life cycle housing” i.e. housing that is adaptable for people’s needs as they change over their lifetime.

**Objective UHO 7 - High Quality/Mix and Sensitive Design**

Ensure that new developments are responsive to their site context and in keeping with the character, amenity, heritage, environment and landscape of the area. New development proposals will be required to complement the existing character of the town centre/area in terms of scale, height, massing, building line, housing mix, urban grain and definition and through high quality design and layout proposals for buildings and structures.

**Objective UHO 8 – Urban Design**

Promote the use of sustainable urban design principles and approaches that will help to create high quality built and natural environments appropriate to the context and landscape setting of the specific area, having regard to the guidance contained in the Sustainable Residential Development in Urban Areas Guidelines 2009 and the accompanying Urban Design Manual 2009 (or any updated version).

**Objective UHO 9 - Vacant Properties/Unfinished Housing**

Promoters of significant residential developments in urban areas where there are large numbers of vacant or unfinished houses will be required to substantiate the requirement for same, based on the individual circumstances of the area.

**Rural Housing Policies****Policy RHO 1 - Management of New Single Houses in the Countryside**

It is a policy of the Council to facilitate the management of new single houses in the countryside in accordance with the Rural Housing Zones 1, 2, 3 & 4 and to support the sustainable re-use of existing housing stock within the County.

**Policy RHO 2 - Adherence to the Statutory Guidelines & County Development Plan**

It is a policy of the Council to ensure that future housing in rural areas complies with the Sustainable Rural Housing Guidelines for Planning Authorities 2005(DOEHLG), the Core/Settlement Strategies for County Galway, Rural Housing Objectives and the Development Management Standards & Guidelines of this Plan.

## Rural Housing Objectives

### Objective RHO 1 - Rural Housing Zone 1 (Rural Area Under Strong Urban Pressure-GTPS)

It is an objective of the Council to facilitate Rural Housing in the open countryside subject to the following criteria:

1(a) Those applicants with Rural Links\* to the area through long standing existing and immediate family ties seeking to develop their first home on existing family farm holdings. Documentary evidence shall be submitted to the Planning Authority to justify the proposed development and will be assessed on a case by case basis.

OR

1(b) Those applicants who have no family lands but who wish to build their first home within the community in which they have long standing Rural links\* and where they have spent a substantial, continuous part of their lives (i.e. have grown up in the area, schooled in the area and have immediate family connections in the area e.g. son or daughter of longstanding residents of the area). Consideration shall be given to special circumstances where a landowner has no immediate family and wishes to accommodate a niece or nephew on family lands. Having established a Substantiated Rural Housing Need\*, such persons making an application on a site within a 8km radius of their original family home will be considered, subject to normal development management criteria and provided the site is not closer to Galway city than the original family home or encroaches within the Urban Fringe\* of the towns of Gort, Loughrea, Athenry, or Tuam. Documentary evidence shall be submitted to the Planning Authority to justify the proposed development and will be assessed on a case by case basis.

OR

1. (c) Those applicants who can satisfy to the Planning Authority that they are functionally dependent on the immediate rural areas in which they are seeking to develop a single house in the countryside. Documentary evidence shall be submitted to the Planning Authority to justify the proposed development and will be assessed on a case by case basis.

2. (a) Those applicants who lived for substantial periods of their lives in the rural area, then moved away and who now wish to return and build their first house as their permanent residence, in this local area, to reside near other family members, to work locally, to care for elderly family members, or to retire. Documentary evidence shall be submitted to the Planning Authority to illustrate their links to the area in order to justify the proposed development and it will be assessed on a case by case basis.

2. (b) To recognise that exceptional health circumstances, supported by relevant documentation from a registered medical practitioner and disability organisation, may require a person to live in a particular environment or close to family support. Documentary evidence shall be submitted to the Planning Authority to justify the proposed development and will be assessed on a case by case basis.

3. An Enurement condition shall apply for a period of 7 years, after the date that the house is first occupied by the person or persons to whom the enurement clause applies.

**Objective RHO 2 - Rural Housing Zone 2(Structurally Weak Area)**

It is an objective of the Council to facilitate the development of individual houses in the open countryside in "Structurally Weak Areas" subject to compliance with normal planning and environmental criteria and the Development Management Standards laid down in Chapter 13 and other applicable standards with the exception of those lands contained in Class 3, 4 & 5 where objective RHO3 applies.

**Objective RHO 3 - Rural Housing Zone 3 (Landscape Category 3, 4 and 5)**

Those Applicants seeking to construct individual houses in the open countryside in areas located in Landscape Categories 3, 4 and 5 are required to demonstrate their Rural Links\* to the area and are required to submit a Substantiated Rural Housing Need\*. In addition an Applicant maybe required to submit a visual impact assessment of their development, where the proposal is located in an area identified as "Focal Points/Views" in the Landscape Character Assessment of the County or in Class 4 and 5 designated landscape areas. Documentary evidence shall be submitted to the Planning Authority to justify the proposed development and will be assessed on a case by case basis. Enurement condition shall apply for a period of 7 years, after the date that the house is first occupied by the person or persons to whom the enurement clause applies.

**Objective RHO 4 - Rural Housing Zone 4 (Gaeltacht)**

It is an objective of the Council to facilitate Rural Housing in the open countryside subject to the following criteria:

- (a) Those applicants within the Gaeltacht which are located in Zone 1 (Rural Area Under Strong Urban Pressure-GTPS) and Zone 3 (Landscape Category 3, 4 and 5) shall comply with the objectives contained in RHO1 & RHO3 as appropriate. Applicants, whose original family home is located on the coastal strip west of An Spidéal, will be permitted to move closer to the city but not more than 8 km from the original family home.

OR

- (b) It is an objective of the Council that consideration will be given to Irish speakers who can prove their competence to speak Irish in accordance with Galway County Council's requirements and who can demonstrate their ability to be a long term asset to the traditional, cultural, arts, heritage and language networks of vibrant Gaeltacht Communities. This consideration will apply to applicants seeking to provide their principal permanent residence, in landscape designations Class 1 & 2 and 3. It will also extend to Class 4 areas that are not in prominent scenic locations. A Language Enurement Clause of 15 years duration will apply to approved developments in this category.

**Objective RHO 5 - Building Conversions in Gaeltacht Areas**

It is an objective of the Council that building conversions in Gaeltacht areas will be considered for the purposes of advancing Gaeltacht Tourism and Gaeltacht Colleges provided the need is substantiated and the development complies with the requirements of the EPA Code of Practice Manual 2009 or any superseding wastewater manual. Documentary evidence shall be submitted to the Planning Authority to justify the proposed development and will be assessed on a case by case basis.

**Objective RHO 6 - Replacement Dwelling**



It is an objective of the Council that the refurbishment of existing habitable dwelling houses would be encouraged, as a more sustainable option than the demolition and construction of a new dwelling house. The demolition and construction of a new dwelling house shall be resisted, unless a conclusive case based on technical evidence is made for the Planning Authority's consideration on a case by case basis. It will be a requirement that any new dwelling house be designed in accordance with the Galway County Council's Design Guidelines for Rural Housing in the countryside.

#### **Objective RHO 7 - Renovation of existing derelict dwelling/semi ruinous dwelling**

It is an objective of the Council that proposals to renovate, restore or modify existing derelict or semi-derelict dwellings in the County are generally dealt with on their merits on a case by case basis, having regard to the relevant policies and objectives of this Plan, the specific location and the condition of the structure and the scale of any works required to upgrade the structure to modern standards. The derelict/semi ruinous dwelling must be structurally sound, have the capacity to be renovated and/or extended and have the majority of its original features/walls in place. A structural report will be required to illustrate that the structure can be brought back into habitable use, without comprising the original character of the dwelling. Where the total or substantial demolition of the existing dwelling is proposed an Enurement Clause will apply.

#### **Objective RHO 8 - Design Guidelines**

It is an objective of the Council to have regard to Galway County Councils' Design Guidelines for the Single Rural House with specific reference to the following: (a) It is an objective to encourage new dwelling house design that respects the character, pattern and tradition of existing places, materials and built forms and that fit appropriately into the landscape. (b) It is an objective to promote sustainable approaches to dwelling house design and encouraging proposals to be energy efficient in their design and layout. (c) It is an objective to require the appropriate landscaping and screen planting of proposed developments by using predominately indigenous/local species and groupings. (d) It is an objective to discourage linear development (defined as five or more houses alongside 250 metres of road frontage). The Council will assess on a case by case basis whether a given proposal will exacerbate such linear development.

#### **Objective RHO 9 - Vacant/Unfinished Housing**

Applicants for rural housing on lands other than family lands shall be encouraged to consider the option to avail of existing or permitted housing in areas where there are high levels of such stock available. A statement relating to same should be submitted as part of the application indicating that an examination of such stock was carried out.

#### **Objective RHO10 - Urban/Rural Demarcation**

It is an objective of the Council to preserve and protect the open character of transitional lands outside of settlements in order to maintain a clear demarcation and distinction between urban areas and the countryside.

**Chapter 4: Economic Development & Tourism****Policy EDT 1 – Economic Development**

Support sustainable economic development and employment creation in the County, while simultaneously having regard to relevant planning legislation and guidance in order to ensure protection of the built and natural heritage, landscape/townscape/streetscape character of settlements and the rural countryside and general amenity.

**Policy EDT 2 – Employment, Economy & Enterprise Promotion & Partnership**

Proactively pursue economic growth, enterprise and employment in the County in conjunction with the relevant state agencies and government departments in a manner that synchronises with the policies and objectives as set out in national, regional and local strategies.

**Policy EDT 3 – Regional Synergy**

Forge partnerships with bordering local authorities and other local and regional agencies including the Western Regional Authority to optimise the benefits of combined resources in order to realise the full sustainable economic potential of the County and Western Region.

**Policy EDT 4 – Third Level/Research Institutions & the Knowledge Economy**

Garner and develop strategic links with third level institutions and industries/businesses in order to create an enhanced local knowledge based economy and in order to strengthen education, training and skills development in the workforce.

**Policy EDT 5 – County Tourism**

Maintain the status of County Galway as a popular tourist destination, by striving to preserve the attributes and assets of the County that make it unique and by endeavouring to enrich the visitor experience by contributing to the fulfillment of appropriate additional tourist resources and facilities, throughout the County within the lifetime of the Plan.

**Policy EDT 6 – Tourism Product**

Support the development of an integrated tourism product for the County involving all the relevant stakeholders and the marketing of tourism initiatives at local, regional, national and international level.

**Policy EDT 7– Food & Craft**

Support the development and marketing of the foods and crafts of the County through global networking and developing trade links with regions internationally.

**Economic Development & Tourism Objectives****Objective EDT 1–Strategic Economic Corridor**

The objectives for the Strategic Economic Corridor include:

- To upgrade, improve and maximise the infrastructural facilities available within the corridor.
- To seek to reserve lands to support nationally and regionally significant activities and to attract specialist enterprise development that is large scale or high value.
- To facilitate opportunities for science and technology based employment.

- To ensure development is compatible with the enhancement, preservation and protection of the environment and cultural resources recognised within the corridor.
- To identify sites of adequate size and location to accommodate necessary infrastructure or support activities which would not be appropriate in proximity to centres of population or sensitive environments or environmentally sensitive economic activities.
- To inform and to aid the preparation of Local Area Plans for strategic areas and those surrounding immediate environs within the corridor.

**Objective EDT 2 – County Economic Development Strategy**

Support the preparation of a County Economic Development Strategy and an Economic and Local Community Plan within the lifetime of the Plan.

**Objective EDT 3 – Research, Innovation, Incubation & Training**

Support exploratory research, pioneering projects, new start-up businesses/industries and retraining programmes in conjunction with the development agencies and educational/research institutions.

**Objective EDT 4 – Provision of Land & Infrastructure**

Dedicate a sufficient amount of strategically located and serviced lands for the purposes of targeting economic development and employment creation activities.

**Objective EDT 5 – Infrastructural Investment**

Assist in obtaining the maximum efficiency of zoned lands in the County through continued support for the installation, maintenance, upgrade and extension of key water, wastewater, communications, energy and transport infrastructural networks.

**Objective EDT 6 – Optimise the Benefits of Serviced Lands**

Safeguard lands that are designated for the creation of employment from inappropriate development that would stifle prospective economic activity.

**Objective EDT 7 – Align Enterprise to Serviced Lands**

Encourage industrial and enterprise development to operate from lands zoned for these purpose within the various Local Area Plans in the County, subject to an adequate consideration of the policies and objectives of this plan and the need to protect the vitality and amenities of the town or settlement.

**Objective EDT 8 – Design Standards**

Encourage the provision of high quality designs (including variations in design and scale), layout, boundary treatment and arrival views of development within Industrial, Business, Enterprise and Commercial/Mixed Use lands, in order to positively contribute to the character and visual amenity of the area.

**Objective EDT 9 – Small Scale Enterprise & Community Services**

Seek to provide a strategic economic balance countywide by encouraging the establishment of small scale enterprises and community services in the smaller rural villages and settlements of the County.

**Objective EDT 10 – Former Galway Airport Site**

Support the development of the former Galway airport site at An Carn Mór for the purposes of an economic hub/strategic development site or other strategic use.

**Objective EDT 11 – Rural Enterprise**

Consider the establishment of small scale rural orientated enterprises in unserved rural areas outside of town or village settings which can be accommodated in existing farm buildings or can be established on a brownfield site, subject to satisfying the following criteria:

- Compatibility and general suitability to an unserved rural area (primary consideration will be given to agriculture, renewable & marine resources, forestry, tourism, recreation or food production related enterprise activities).
- Substantive demonstration that the proposed rural enterprise cannot be located in a small village or settlement.
- Scale of development (assimilate appropriately into a rural setting).
- Nature of development (raw materials sourced locally).
- Consideration of social and environmental impacts (enterprise must not have a significant adverse impact on the environment or rural amenity).
- Impact on the road network, road capacity and traffic levels (the enterprise must not constitute a road safety hazard).
- Residential amenity (enterprise must not have a significant adverse impact on residential amenity).

**Objective EDT 12 – Farm Diversification**

Consider proposals for the integration of a retail/services use onto a farm where it can be demonstrated that the scale and extent of retailing proposed is ancillary and compatible to the ongoing agricultural use of the farm and will not compromise the vitality and viability of retail facilities in any nearby settlement or detract from the rural setting in which it is to operate.

**Objective EDT 13 – Seveso II Directive**

Refer planning applications concerning a proposed development within the buffer zone of an existing Seveso II site and any new proposal constituting a Seveso II designation to the Health & Safety Authority.

**Objective EDT 14 – Tourism Infrastructure & Services**

Provide where feasible, and support the provision of tourism infrastructure and services including, greenway amenity and water based tourism infrastructure throughout the County in appropriate locations.

**Objective EDT 15 – Connemara Infrastructure & Interpretation Plan**

Support in the delivery of the vision as set out in the 'Connemara Infrastructure and Interpretation Plan 2012' within the lifetime of the Plan.

**Objective EDT 16 – Teach an Phiarsaigh**

Collaborate with relevant agencies and committees in the development of Teach an Phiarsaigh project at Rosmuc and assist in the delivery of its tourist potential as a historical and cultural centre within the lifetime of the Plan.

**Objective EDT 17 – Outdoor Pursuits**

Support the provision of sporting, sailing, boating, kayaking and angling facilities, pier and marina development, pony trekking routes, golf courses, adventure and interpretative centres and associated ancillary uses throughout the County in appropriate locations.

**Objective EDT 18 – Holiday Accommodation in Serviced Settlements**

Encourage the proportionate development of new standalone holiday homes/independent guest accommodation and short-stay accommodation within existing adequately serviced town and village settlements.

**Objective EDT 19 – Holiday Accommodation in Open Countryside**

(a) Consider the reuse of existing buildings for holiday homes/guest accommodation outside of settlements where it can be demonstrated that there is a justifiable tourist product/demand. Any renovation work shall be similar in scale and design to the existing building(s). In such cases, documentary evidence shall be submitted to substantiate the proposed development and each individual application will be assessed on its merits.

(b) Consider the provision of short-stay accommodation (glamping/camping etc) outside of settlements where it can be demonstrated that there is a justifiable tourist product/demand. The need to develop in a particular area must be balanced against environmental, social and cultural impacts of the development and benefits to the local community. In such cases, documentary evidence shall be submitted to substantiate the proposed development and each individual application will be assessed on its merits.

**Objective EDT 20 – Off Shore Island Tourism**

Facilitate the development of sustainable and green tourism which draws on the cultural, linguistic, archaeological, marine/coastal and ecological wealth of the off shore islands of County Galway while simultaneously safeguarding their integrity.

**Objective EDT 21 – Gaeltacht Tourism**

Facilitate the sustainable development of the Gaeltacht areas of County Galway as cultural and linguistic tourist destinations while simultaneously safeguarding their integrity.

**Objective EDT 22 – East Galway, Lough Derg & The Burren**

Facilitate the sustainable development of East Galway, Lough Derg and the Burren as cultural and tourist destinations while simultaneously safeguarding their integrity.

**Objective EDT 23 – Food and Craft**

Support and facilitate the development of the Food and Craft sector including the formation of regularised farmers markets & festivals at appropriate locations throughout the County.

## Chapter 5: Roads and Transportation

### Land Use Integration & Sustainable Transportation Strategy Policies

#### Policy TI 1 – Transportation Strategy and Compliance with Legislation

It is the overarching policy of Galway County Council to comply with all relevant Irish and European planning and environmental legislation in implementing its Transportation Strategy.

#### Policy TI 2 – Development of an Integrated & Sustainable transport System

It is the policy of the Council to promote the development of an integrated and sustainable high quality transport system that shall: a) Promote closer co-ordination between land use and sustainable transportation; b) Continue the provision of a range of transport options within the county in collaboration with other statutory agencies and transport providers, including a safe road network, a range of bus and rail services, adequate facilities for walking and cycling and opportunities for air and water-based travel.

#### Policy TI 3 – Sustainable Travel Measure

Support the Government's commitment under the EU Renewable Energy Directive (2009/28/EC) to achieve agreed national targets in relation to sustainable transport to include those for electric vehicles to constitute 10% of the Irish transport fleet by 2020 and a bio-fuel obligation, which will incrementally increase on a sustainable basis to 2020, to meet the renewable energy target of 10% in 2020.

#### Policy TI 4 – Land Use Integration and Transportation

Ensure that land use planning is integrated with transportation planning and reduces the need to travel, particularly by private transport, by;

1. Promoting the consolidation of development through the implementation of the Core Strategy/Settlement Strategy as outlined within this Plan;
2. Encouraging intensification and mixed use development at public transport hubs and nodes identified within the county.
3. Prioritise walking, cycling and public transport alternatives within, and providing access to, new development proposals, as appropriate.

### Land Use Integration & Sustainable Transportation Strategy Objectives

#### Objective TI 1 – Sustainable Transportation

Support and facilitate any 'Smarter Travel' initiatives that will improve sustainable transportation within the county including public transport, electric and hybrid vehicles, car clubs, public bike schemes, park and ride/park and stride facilities, improved pedestrian and cycling facilities, as appropriate.

#### Objective TI 2 – Sustainable Travel Measures

In order to help meet the agreed national targets set for the Transport sector under the EU Renewable Energy Directive (2009/28/EC), Galway County Council shall:

1. Facilitate improvements to existing public transport infrastructure and services through commuter rail and park and ride facilities;
2. Collaborate with service providers in the improvement of fuel efficiency of motorised transport;
3. Encourage the use of electric vehicles and bicycles, in line with Council and National policy;
4. The Council shall continue to promote/implement the cycle to work scheme for all employees;
5. Support the provision of suitable infrastructure to encourage an increase in the use of electric vehicles including the piloting of charging points on-street at key areas subject to the availability of resources and the provision of charging points in non-residential developments.

**Objective TI 3 – Mobility Management Plans**

Require Mobility Management Plans for all large scale residential, commercial, mixed use, business/enterprise or industrial developments, as appropriate.

**Objective TI 4 – Transportation Hub Development**

Investigate the potential for the development of integrated transportation hubs at Tuam, Ballinasloe, Athenry, Gort, Clifden, Loughrea and at Garraun within the lifetime of this Plan and as resources permit. Seek to maximise the strategic integration of transport and rational land uses within the emerging transportation and economic corridors. Over the lifetime of this Plan, emphasis will be placed on the provision of bus facilities adjacent to rail stations, where appropriate.

**Road and Transportation Policies****Policy TI 5 – Roads, Streets and Parking**

It is policy of Galway County Council in conjunction with all relevant statutory agencies and infrastructure providers to provide road and street networks that are safe and convenient, that have adequate capacity to accommodate motorised traffic and non-motorised movements, that have a high environmental quality with appropriate adjacent development and built form, particularly in the case of urban streets and streetscapes, and that adequate parking facilities are provided to serve the needs of towns and villages within the County.

**Policy TI 6 – Protection of Strategic Transportation Infrastructure**

Seek to protect and safeguard the significant investment made in strategic transportation infrastructure, in particular the network of national roads, the existing rail lines and the Western Rail Corridor.

**Policy TI 7 – Protection of National Road Network**

Protect the motorway and national road network and national road junctions in line with Government policies. Safeguard the carrying capacity, operational efficiency, safety and significant investment made in motorway, national road network within the County including the M6 Dublin to Galway Motorway, the M18 Gort to Crusheen Motorway and the M17/M18 Galway to Tuam when completed.



## Road and Transportation Objectives

### Objective TI 5 – Roads and Transportation Network Improvements

Facilitate the progression of and implement improvements to the existing National Road and Regional/Local Road networks including the priority transportation schemes, listed in Table 5.1: Priority Transportation Infrastructure Projects for Co. Galway 2015-2021 and those listed within Table 5.2: Regional/Local Projects Proposed 2015-2021 subject to relevant Irish planning and European environmental legislation including Article 6 of the habitats Directive and/or other environmental assessment, where appropriate.

### Objective TI 6 – Direct Access onto National Routes

Galway County Council will not normally permit development proposals for future development that include direct access onto any national primary or secondary road outside of the 50-60kph speed limit zone for towns and villages.

### Objective TI 7 – Service/Rest Areas & Scenic Viewpoints

A) Support the National Roads Authority in the provision of service and rest area facilities that may be proposed by the NRA.

B) Support the development of scenic viewpoints on existing road infrastructure where appropriate, minimising environmental impact.

**Objective TI 8 – Traffic Management Plans Consider the review of Traffic Management Plans in** Ballinasloe, Portumna, Gort, Athenry, Oranmore, Loughrea, Cill Rónain, Oughterard, Tuam and Cleggan. Carry out Traffic Management Plans for Craughwell, Headford, Kinvara, Bearna, Baile Chláir, Maigh Cuilinn, Leenane and Dunmore.

**Objective TI 9 – Car Parking** Provide/improve parking facilities in towns and villages as development and traffic demand. The requirements for car parking shall be in accordance with the standards and guidelines as set out within Section 13: Development Management Standards and Guidelines of this Plan under Guidelines for Transportation, Roads, Parking, Loading and Storage.

**Objective TI 10 – Traffic and Transport Assessment (TTA) & Road Safety Audits (RSA)** Require all proposed new significant development proposals to be accompanied by a TTA and RSA, 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 Management Guidelines and with respect to RSA in NRA DMRB HD19/12 Road Safety Audit (including any updated superseding document).

**Objective TI 11 – Urban Street Network and the Design Manual for Urban Roads & Streets** Support the treatment of the route network within the built areas of the towns 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 (including any updated/superseding document) shall be applied to new development as appropriate.

**Objective TI 12 – Noise**

Require all new proposed development, within 300m of roadways with traffic volumes greater than 8,200ADT, to include a noise assessment and mitigation measures if necessary with their planning application documentation. Mitigation measures in order to protect the noise environment of existing residential development will be facilitated or enforced as necessary.

**Objective TI 13 – Signage on or visible from all Roads**

Avoid the proliferation of non-road traffic signage on and adjacent to all roads in the interest of traffic safety and visual amenity, in accordance with the Spatial Planning and National Roads Guidelines for Planning Authorities 2012. The NRA document Policy and Provision of Tourist and Leisure Signage on National Roads March 2011 (including any updated/superseding document) shall also be considered in the assessment of relevant developments.

**Objective TI 14 – Road Safety Schemes**

Provide a safe road system throughout the county through Road Safety Schemes, which will include the continuation of the low cost safety measure programme, signage and delineation, traffic calming, and liaison with the school authorities to ensure that the schools provide safety features as required.

**Public Transport Objectives****Objective TI 15 – The Sustainable Development of the Western Rail Corridor**

Maintain the Western Rail Corridor as an option for passenger train and cargo transportation and support the opening of the remainder of the Western Rail Corridor route from Athenry to Collooney.

**Objective TI 16 – Bus Services & the Rural Transport Programme (RTP)**

- a) Support the provision of public and private bus services and ancillary infrastructure including bus shelters, park and ride facilities at appropriate locations.
- b) Support and help implement the Rural Transport Initiative including any revisions to same. Work with the HSE/local communities including the Galway Transport Co-ordination Unit (TCU) in order to encourage and promote a sustainable community-based public transport scheme

**Objective TI 17 – Public Transport Plan**

The Council shall prepare a Public Transport Plan in consultation and co-operation with the National Transport Authority, the Galway Transportation Co-Ordination Unit (TCU) and other relevant agencies.

**Objective TI 18 – Galway County Walking and Cycling Strategy**

Implement the recommendations and proposals within the National Cycle Route Network Guidelines and the Galway County Walking and Cycling Strategy 2013 as outlined within Table 5.1: Priority Transportation Infrastructure Projects for Co. Galway 2015.

**Air Transport Objectives**

The following objectives are written with the provision of airstrips for the proper planning and sustainable development of the area in mind.

**Objective TI 19 – Local Airstrips**

The Council shall safeguard the current and future operational, safety, technical and development requirements of local airstrips within its functional area by having regard to the advice of the Irish Aviation Authority with regard to the effects of any development proposals in the vicinity of local air strips.

**Objective TI 20 – Helipad Facilities**

The Council shall facilitate the provision of helipad facilities in industrial/commercial areas, strategic development sites or in areas in close proximity to hospitals or emergency facilities where feasible and appropriate.

**Ports, Harbours, Piers & Slipways Objectives****Objective TI 21 – Sustainable Development of Ros an Mhíl Sea Port & Galway Harbour**

Galway County Council shall continue to recognise the strategic importance of Ros an Mhíl and Galway Harbour and shall promote and facilitate their continued sustainable development including the following:

- a) The Council shall undertake the improvement works to the existing road infrastructure servicing Ros an Mhíl as resource permit.
- b) Collaborate with Galway City Council and with the Galway Harbour Company in the promotion of interconnectivity between Galway Harbour and Ros an Mhíl.

**Objective TI 22 – Sustainable Development of Ports, Harbours, Piers and Slipways**

- 1) Support the development of Ros an Mhíl as a deep water port and facilitate the maintenance and improvement of, exiting ports, harbours, piers and slipways and consider any new marine infrastructure where appropriate and as resources allow;
- 2) Facilitate the safe and convenient access to the water for the purpose of public transport, industry commerce, sea rescue, tourism, aquaculture and recreation where appropriate and as resources allow.

**Objective TI 23 – Harbour Bye-Laws**

Facilitate the implementation of harbour bye-laws for the regulation and control of harbour activities

**Objective TI 24 – Water Bourne Transport**

Support and facilitate the operation of ferry/cargo services between the mainland and the offshore islands within County Galway and those serving Galway Gateway and County Clare. Facilitate the sustainable expansion of such services/facilities over the lifetime of the Plan in collaboration with service providers and other local authorities as appropriate, minimising environmental impact. Land use proposals that would prejudice the sustainable operation of these services will not normally be permitted.

**Chapter 6: Water, Wastewater, Waste Management & Extractive Industry****Water Policies Policy WS 1 – Irish Water**

Galway County Council will work in close co-operation with Irish Water in its new role as the lead authority for water services.

**Policy WS 2 – Water Services Investment Programme**

Support the implementation of the current Water Services Investment Programme and any subsequent Water Services Investment Programmes.

**Policy WS 3 – Water Conservation**

Continue the commitment to water conservation and leakage reduction within the County and promote water conservation campaigns.

**Policy WS 4 – Water Quality**

Promote public awareness of water quality issues and the measures required to protect both surface water and groundwater bodies.

**Water Objectives****Objective WS 1 – Protection of Ground Waters**

Support the protection of groundwater resources and dependent wildlife/habitats in accordance with the Groundwater Directive 2006/118/EC, the European Communities Environmental Objectives (groundwater) Regulations, 2010 (S.I. No. 9 of 2010) or any updated legislation and the Groundwater Protection Scheme and source protection plans for water supplies.

**Objective WS 2 – EU Policies and Directives**

Protect, conserve and enhance existing and potential water resources of the County, in accordance with the EU Water Framework Directive, the River Basin Management Plans, the European Communities Environmental Objectives (Surface Waters) Regulations 2009 (SI No. 272 of 2009), and implement the European Communities (Drinking Water) Regulations (No. 2) 2007 and ensure that water supplies comply with the parameters in these regulations.

**Objective WS 3 – Irish Water**

Liaise with and advise Irish Water in identifying, prioritising and progressing the implementation of water projects throughout County Galway over the lifetime of the Plan.

**Objective WS 4 – Provision of Water Services in Unserviced Towns & Villages**

Support the provision of water services infrastructure in unserviced towns and villages to assist in the proper planning and sustainable development of the County.

**Objective WS 4 – Provision of Water Services in Unserviced Towns & Villages**

Support the provision of water services infrastructure in unserviced towns and villages to assist in the proper planning and sustainable development of the County.

**Objective WS 5 – Water Safety Plan**

Support the preparation of water safety plans for the protection of the major public water supply schemes in County Galway within the lifetime of the Plan.

**Objective WS 6 – Regional Water Supply Networks**

Develop in conjunction with Irish Water the supply of water through the Regional Water Supply Networks including the interlinking of networks to ensure continuity and security of supply throughout the expanded network.

**Objective WS 7 – Source Management & Protection Zones**

Liaise with Irish Water and seek to establish source management and protection zones around drinking water supply (ground and surface) sources and develop appropriate management and maintenance for same.

**Objective WS 8 – Water Conservation**

Support efficiency in the operation and demand management of the water supply infrastructure, promote water conservation and reduce the overall level of water loss in the public water supply.

**Objective WS 9 – River Basin Management Plans 2009 - 2015**

Support the implementation of the relevant recommendations and measures as outlined in the Shannon International & Western River Basin Management Plans 2009 – 2015, and associated Programmes of Measures, or any such plans that may supersede same during the lifetime of this County Development Plan. Development shall only be permitted where it can be clearly demonstrated that the proposal would not have an unacceptable impact on the water environment, including surface waters, groundwater quality and quantity, river corridors and associated wetlands, estuarine waters and coastal waters. Cognisance shall be taken where relevant of the EU's Common Implementation Strategy Guidance Document No. 20 which provides guidance on exemptions to the environmental objectives of the Water Framework Directive.

**Objective WS 10 – Investment in Water Services Infrastructure**

Support the extension or upgrading of existing water infrastructure facilities in the County through the implementation of the current Water Services Investment Programme 2010 - 2013 and any subsequent Water Services Investment Programmes.

**Objective WS 11 – Regionally & Locally Important Aquifers**

Protect the regionally and locally important aquifers within the County from risk of pollution and ensure the satisfactory implementation of the groundwater protection schemes and groundwater source protection zones, where data has been made available by the Geological Survey of Ireland.

**Objective WS 12 – Adequate Provision & Supply of Drinking Water**

Ensure that new developments are adequately serviced with a suitable quantity and quality of drinking water supply and require that all new developments provide for water supply metering.

**Objective WS 13 – Connection to Public Water Supplies**

Require new developments to connect to public water supplies where services are available.

**Objective WS 14 – Private Water Supply**

It is an objective of the Council that where connection to a public water supply is not possible, or the existing supply does not have sufficient capacity, the provision of a private water supply will be permitted, only where it can be demonstrated that the proposed water supply meets the standards set out in the EU and national legislation and guidance including adherence to Article 6 of the EU Habitats Directive, and would not be prejudicial to public health or would not significantly impact negatively on the source or yield of an existing supply.

**Objective WS 15 – Provision & Quality of Drinking Water**

Have regard to the EPA (2013) publication The Provision and Quality of Drinking Water in Ireland – A Report for the year 2012 (and any subsequent update) in the establishment and maintenance of water sources in the County.

**Objective WS 16 – Water Services Plan**

Support the preparation & implementation of a Water Services Plan in accordance with Section 36 of the Water Service Act 2007.

**Wastewater Policies and Objectives Wastewater Policies****Policy WW 1 – Collaborative Provision of Wastewater Collection & Treatment Systems**

Co-operate with Irish Water to increase capacity to service settlements, to jointly investigate proposals for future upgrades of treatment plants; and participate in the provision of a long term solution for wastewater treatment in the West Region.

**Wastewater Objectives****Objective WW 1 – EU Policies and Directives**

Ensure that all wastewater generated is collected, treated and discharged after treatment in a safe and sustainable manner, having regard to the standards and requirements set out in EU and national legislation and guidance and subject to compliance with the provisions and objectives of the EU Water Framework Directive, relevant River Basin Management Plans, Urban Waste Water Directive and the EU Habitats Directive.

**Objective WW 2 – Provision of Wastewater Collection & Treatment Systems**

Support, in conjunction with Irish Water, during the lifetime of the Plan the provision, extension and upgrading of wastewater collection and treatment systems in all towns and villages of the County to serve existing and planned future populations, including Clarinbridge, Corofin & Lackagh.

**Objective WW 3 – East Galway Main Drainage Scheme**

Seek to accelerate progress on delivery of the East Galway Main Drainage Scheme, in particular Phase 3 as a key piece of strategic infrastructure, in conjunction with the Department of the Environment, Community & Local Government, Irish Water and Galway City Council.

**Objective WW 4 – Sludge Management Plan**

Implement the objectives as outlined in the Galway City Council & County Council Operational Sludge Management Plan (January 2011) throughout the lifetime of the Plan.

**Objective WW 5 – Waste Water Treatment Associated with Development in Un-Serviced Areas**

Permit development in un-serviced areas only where it is demonstrated to the satisfaction of the Planning Authority that the proposed wastewater treatment system is in accordance with the Code of Practice Wastewater Treatment and Disposal systems serving Single House EPA (2009)/ EPA Wastewater Treatment Manuals – Treatment Systems for Small Communities, Business, Leisure Centres and Hotels (1999) (or any superseding documents) and subject to complying with the provisions and objectives of the EU Water Framework Directive.

**Objective WW 6 – Adherence to Environmental Standards**

Promote the provision of safe and secure wastewater infrastructure to ensure that the public is protected and that permitted development, is within the environmental carrying capacity and does not negatively impact on habitat quality or species diversity.

**Objective WW 7 – Surface Water Drainage & Sustainable Drainage Systems (SuDS)**

Maintain and enhance, as appropriate, existing surface water drainage systems in the County, ensure that new developments are adequately serviced with surface water drainage infrastructure and promote the use of Sustainable Drainage Systems in all new developments.

**Objective WW 8 – Substandard Wastewater Treatment Plants**

Support and facilitate as appropriate the upgrading of substandard public wastewater treatment plants in order to comply with the provisions of the Urban Waste Water Treatment Regulations 2001 and 2004, the Waste Water Discharge (Authorisation) Regulations 2007 and implement the relevant recommendations set out in the EPA document Focus on Urban Waste Water Discharges in Ireland (and any subsequent updates).

**Waste Management Policies and Objectives****Waste Management Policies****Policy WM 1 – Waste Prevention & Reduction**

Promote campaigns to meet the long-term challenge of waste prevention and minimisation at household and business level.

**Policy WM 2 – Polluter Pays Principle**

Implement the application of the polluter pays principle to the provision of all waste management services.

**Waste Management Objectives****Objective WM 1 – Replacement Connacht Waste Management Plan 2006 – 2011**

Implement the Replacement Connacht Waste Management Plan 2006 – 2011 or any updated version of this document within the lifetime of the Plan.

**Objective WM 2 - National Hazardous Waste Management Plan 2008 – 2012**

Implement the provisions of the National Hazardous Waste Management Plan 2008 – 2012 or any updated version of this document within the lifetime of the Plan.

**Objective WM 3 – Provision of Recycling Centres**

Strive to provide and maintain an equitable distribution of recycling centres throughout the County and support the provision of additional recycling centres in the south Connemara and south Galway areas of the County. Objective WM 4 – User Friendly Waste Management Services Seek to provide a high standard of customer service provision in regard to waste management and maintain user friendly opening hours at recycling centres throughout the County.

**Objective WM 5 - Bring Bank Facilities**

Support the provision of additional bring bank facilities at appropriate and strategic locations throughout the County in an effort to reach the overall regional ratio per head of population target



for such infrastructure as set out in the Evaluation Report 2012 of the Replacement Connacht Waste Management Plan for the Connacht Region 2006 – 2011.

### **Objective WM 6 - Provision of Voluntary Waste Management Infrastructure**

Encourage and support community and voluntary groups in the establishment of waste services and facilities on the off shore islands and in sparsely populated areas of the County.

## **Mineral Extraction and Quarry Policies and Objectives**

### **Mineral Extraction and Quarry Policies**

#### **Policy EQ 1 – Environmental Management Practice**

Have regard to evolving best environmental management practice as set out in Environmental Protection Agency (EPA) Guidelines ‘Environmental Management in the Extractive Industry: Non Scheduled Minerals’.

#### **Policy EQ 2 - Adequate Supply of Aggregate Resources**

Ensure adequate supplies of aggregate resources to meet future growth needs within County Galway, facilitate the exploitation of such resources where there is a proven need and market opportunity for such minerals or aggregates, and ensure that this exploitation of resources does not adversely affect the environment or adjoining existing land uses.

### **Mineral Extraction and Quarry Objectives**

#### **Objective EQ1 – Protection of Natural Assets**

Protect areas of geo-morphological interest, groundwater and important aquifers, important archaeological features and Natural Heritage Areas from inappropriate development.

#### **Objective EQ 2 – Management of Aggregate Extraction**

The Council shall require the following in relation to the management of authorised aggregate extraction

- a) All quarries shall comply with the requirements of the EU Habitats Directive, the Planning and Development (Amendment) Act 2010 and by the guidance as contained within the DoEHLG Quarries and Ancillary Facilities Guidelines 2004, the EPA Guidelines ‘Environmental Management in the Extractive Industry: Non Scheduled Minerals 2006 (including any updated/superseding documents) and to DM Standard 37 of this Development Plan;
- b) Require development proposals on or in the proximity of quarry sites, to carry out appropriate investigations into the nature and extent of old quarries (where applicable). Such proposals shall also investigate the nature and extent of soil and groundwater contamination and the risks associated with site development works together with appropriate mitigation;
- c) Have regard to the Landscape Character Assessment of the County and its recommendations including the provision of special recognition to the esker areas as referenced in GCC Galway’s Living Landscapes – Part 1: Eskers;
- d) Ensure that any quarry activity has minimal adverse impact on the road network;
- e) Ensure that the extraction of minerals or aggregates does not adversely impact on residential or environmental amenity;

- f) Protect all known un-worked deposits from development that might limit their scope for extraction.

#### **Objective EQ 3 – Sustainable Reuse of Quarries**

Encourage the use of quarries and pits for sustainable management of post recovery stage construction & demolition waste, as an alternative to using agricultural land, subject to normal planning and environmental considerations.

#### **Objective EQ 4 – Compliance with Article 6(3) of the EU Habitats Directive**

Ensure that all projects associated with the mineral extractive industry carry out screening for Appropriate Assessment in accordance with Article 6(3) of the Habitats Directive, where required.

### **Chapter 7: Energy, Renewable Energies & Communications Technology**

#### **Energy and Renewable Energy Policies**

##### **Policy ER 1 – Sustainable Energy Policy and Targets**

Promote the implementation of the Government's White Paper 'Delivering a Sustainable Energy Future for Ireland, Energy Policy Framework 2007-2020' (or any updated or superseding document) over the lifetime of the Galway County Development Plan 2015-2021 to assist in ensuring that the energy efficiency target is realised by 2020 from renewable sources.

##### **Policy ER 2 – Development of Renewable Energy**

The Council shall support proposals for renewable energy developments (including transmission grid development, ocean energy/wave and tidal technologies and ancillary facilities) at appropriate locations within the County having regard to residential amenities, biodiversity and landscape sensitivities, where such proposals are in compliance with the County Development Plan 2015-2021 and the principles of proper planning and sustainable development.

##### **Policy ER 3 – Security of Supply**

Facilitate the strategic goal of effective balanced regional development through the implementation of policies that will deliver reliable and effective energy networks and electricity grid for the West Region including County Galway, minimising environmental impact by:

- a) Promoting and supporting the provision of secure and efficient energy supply and storage including electricity, gas, and renewable energy including wind, wave/tidal, solar, bio-energy and heat energy distribution;
- b) Supporting infrastructural renewal, strengthening and development of electricity networks within the County including the overhead infrastructure required to provide the networks including proposals under EIRGRID Grid West Project which is part of the Grid 25 Strategy;
- c) Facilitating the extension of a natural gas distribution network to serve both the County and West Region.

##### **Policy ER 4 – Sustainable Development and Energy Efficiency**

Promote more sustainable development through energy end use efficiency, increasing the use of renewable energy and improved energy performance of all new building developments throughout the County.

## **Energy and Renewable Energy Objectives**

### **Objective ER 1 – Electricity and Renewable Energy Infrastructure**

Support the development and expansion of infrastructure for the generation, storage, transmission and distribution of electricity, renewable energy and other renewable energy proposals in suitable locations in County Galway.

### **Objective ER 2 – Priority Transmission Infrastructure Projects**

Facilitate the progression of and implement improvements to the existing electricity networks listed in Table 7.1 Priority Transmission Infrastructure Projects for County Galway that might be brought forward during the lifetime of this Plan, subject to relevant Irish planning and European environmental legislation including Article 6 of the Habitats Directive and/or other environmental assessment Map ER1 outlines existing and proposed energy transmission infrastructure corridors.

### **Objective ER 3 – Low Carbon County**

Promote County Galway as a low carbon County by 2020. Encourage and favourably consider proposals for renewable energy developments and ancillary facilities in order to meet national, regional, county energy targets and to facilitate a reduction in CO2 emissions.

### **Objective ER 4 – Renewable Energy**

1. Support and facilitate the development and use of renewable energy sources and associated infrastructure within the County, including
  - Wind Energy;
  - Wave/Tidal Energy;
  - Hydro-Power;
  - Solar Energy;
  - Bio-Energy,
  - Geo-Thermal
  - Combined Heat Power (CHP):
  - Heat Energy Distribution (such as District Heating/Cooling Systems); and
  - Other renewable energy sources, as appropriate and in line with national guidelines for sustainable development.
2. The Council shall prepare a County Renewable Energy Strategy as resources permit.

### **Objective ER 5 - Wind Energy Developments**

Promote and facilitate wind farm developments in suitable locations, having regard to areas of the County designated for this purpose in the County Galway Wind Energy Strategy. The Planning Authority will assess any planning application proposals for wind energy production in accordance with the County Galway Wind Energy Strategy, the DoEHLG Guidelines for Planning Authorities on Wind Energy Development, 2006 (or any updated/superseded documents), having due regard to the Habitats Directive and to the detailed policies, objectives and Development Standards set out in the Wind Energy Strategy.

### **Objective ER 6 – Wind Energy Strategy**

The policies, objectives and development management guidelines/standards set out in the County Galway Wind Energy Strategy shall be deemed to be the policies, objectives and development

management guidelines/standards for the purpose of the Galway County Development Plan 2015-2021.

### **Objective ER 7 – Energy Efficiency Technology in Buildings**

The Planning Authority will have regard to the DoEHLG Guidelines on Sustainable Residential Developments in Urban Areas: Guidelines for Planning Authorities, 2009 and the accompanying guidance document Urban Design Manual in the assessment of any proposals for residential development, including inter alia those in respect of energy efficiency, passive solar design and renewable energy sources. The Council shall:

- a) Encourage and actively promote innovative housing design, energy efficient technologies and layout solutions that address concerns of environmental sustainability with regard to matters such as energy efficiency and the use of materials;
- b) Actively encourage the integration of micro renewable energy sources into the design and construction of single and multiple housing developments throughout the County.
- c) The Council shall work with local and relevant departments to identify where there is poor energy infrastructure and low penetration of renewable energy. The Council shall promote the use of district heating/cooling and combined heat and power in new single and multiple housing developments, within schools, commercial and public buildings throughout the County.
- d) Galway County Council shall require the provision of energy efficient street lighting in all private developments.

### **Objective ER 8 – Promoting Energy Hubs**

Galway County Council shall promote Tuam Hub Town, Athenry and Gort and their environs as energy hubs, to take account of opportunities to develop suitable sustainable enterprises due to their proximity to electricity and gas transmission networks and minimising environmental impact.

### **Objective ER 9 – Oileáin Árann an Energy Transition Community**

The Council shall continue to support Comharchumann Fuinnimh Oileáin Árann (Aran Islands Energy Cooperative), SEAI and Údarás na Gaeltachta in their objective to develop the Islands as being energy independent by 2022 and becoming Ireland's first energy transition community.

## **Information & Communications Technology Policies & Objectives**

### **Information & Communications Technology Policies**

#### **Policy ICT 1 – Information & Communications Technology Infrastructure**

It is a policy of the Council to achieve a balance between facilitating the provision of telecommunications infrastructure, in the interests of social and economic progress and sustaining residential amenity and the protection of the built and natural environment.

#### **Policy ICT 2 – Installation of Information & Communications Technology**

Infrastructure in High Amenity Areas It is a policy of the Council that where feasible proposed developments pertaining to the installation of potentially obtrusive information and communications technology infrastructure shall be located in landscape categories 1-3. Where they must be located on sensitive landscapes (those being a Class 4 (Special) or 5 (Unique) landscape category areas or in proximity to a National Monument, Protected Structure/Architectural Conservation Areas or within a

focal point/view) shall be accompanied by visual impact assessments as part of the planning application process.

### **Information & Communications Technology Objectives**

#### **Objective ICT 1 – Facilitate the Delivery of Telecommunications, Broadband and Digital Infrastructure**

Support and facilitate the delivery of high capacity ICT infrastructure, Broadband Networks and Digital Broadcasting in the County having regard to the Government Guidelines Telecommunications Antennae and Support Structures-Guidelines for Planning Authorities 1996 (DoEHLG) and Circular Letter PL 07/12 (including any updated/superseding documents) and where it can be demonstrated that the development will not have significant adverse effects on the environment including the integrity of the Natura 2000 network.

#### **Objective ICT 2 – Assimilation of Telecommunications Infrastructure into the Landscape**

Seek to locate telecommunication masts in non-scenic amenity areas, having regard to the Landscape Sensitivity Rating Assessment of the County. In instances where their location is essential in a Class 4 (Special) or 5 (Unique) landscape category areas or in proximity to a National Monument, Protected Structure/Architectural Conservation Area or within a focal point/view, it shall be necessary to minimise their obtrusiveness in as far as is practically possible.

#### **Objective ICT 3 – Co-Location of Telecommunications Infrastructure.**

Avoid a proliferation of communications masts and antennae in the open countryside and facilitate the potential for future mast sharing and co-location.

#### **Objective ICT 4 – Open Access Fibre Ducting**

Support and promote the installation of connections for high speed technologies, where practicable, in accordance with the Department of Communications, Energy and Natural Resources documents including 'Recommendations for Open Access Fibre Ducting and Interior Cabling for New Residential Buildings 'Making Homes Fibre Ready', 2011, the National Broadband Plan for Ireland 2012, 'Delivering a Connected Society' and the National Digital Strategy for Ireland 2013, 'Doing more with Digital – Phase 1 Digital Engagement

## **Chapter 8: Climate Change & Flooding**

### **Climate Change Policies**

#### **Policy CC 1 – Climate Change Policy**

It is Council policy to have regard to EU and national legislation and strategies on climate change in its decision making process, in order to contribute to a reduction and avoidance of human induced climate change, in accordance with national targets under the Kyoto Protocol and the EU Roadmap.

#### **Policy CC 2 – Climate Change Adaptation Plans**

Support the National Climate Change Adaptation Framework 2012 by implementing relevant measures in any forthcoming adaptation plans. Such plans shall be in accordance with national guidance issued by the DoECLG and EPA and undertaken in collaboration with the West Regional Authority, Galway City Council, Mayo County Council and Roscommon County Council.

#### **Policy CC 3 – Increase Awareness of Climate Change**

The Council shall work collaboratively with regional/local authorities and other agencies to adapt to climate change and to increase the awareness of the impacts of climate change to enable people to understand and respond to the challenges that they face as a result of current and future climate change.

**Policy CC 4 – Mainstreaming Climate Change Adaptation**

Galway County Council shall mainstream climate change adaptation into land use planning, building layouts, energy, transport, natural resource management, forestry, agriculture and marine waters.

**Policy CC 5 – Climate Change and the Natural Environment**

The Council shall support a healthy and diverse natural environment with capacity to adapt by promoting the role of green networks in helping the county/region to mitigate and adapt to climate change by strengthening habitat networks, reducing habitat fragmentation and providing opportunities for species to migrate.

**Policy CC 6 – Adapting Infrastructure to Climate Change**

The Council shall be guided by the EU document Adapting Infrastructure to Climate Change (SWD /2013/137) which sets out how climate change will affect energy, water supply, transport, communications infrastructure and buildings. All critical infrastructure proposals shall be ‘Climate proofed’ which shall not only consider the resilience to the adverse impacts of climate change but shall also minimise the emission of greenhouse gases over the lifespan of the physical asset in question.

**Policy CC 7 – Local Authority Action Regarding Climate Change**

It is a policy of the Council to be a leader in the action against climate change. The Council will strive to reduce energy consumption and increase the use of renewable energy in line with international, national and any forthcoming regional targets.

**Air Quality Objectives****Objective CC 6– Air Quality**

Galway County Council shall promote the preservation of best ambient air quality compatible with sustainable development in accordance with the EU Ambient Air Quality and Cleaner Air for Europe (CAFE) Directive (2008/50/EC) and by ensuring that all air emissions associated with new developments are within Environmental Quality Standards as out in the Air Quality Standards Regulations 2011 (SI No. 180 of 2011) (or any updated/superseding documents).

**Objective CC 7– Air Purification**

The Council shall encourage landscaping and deciduous tree planting in an environmentally sensitive manner within towns and villages as a means of air purification, the filtering of suspended particles and the improvement of their micro-climate.

**Objective CC 8 – Radon**

The Council shall have regard, to the specific guidance on radon prevention measures for new homes as contained within the existing Building Regulations (including any updated/superseding regulations that may be published within the lifetime of this Development Plan).

**Flood Risk Management Policies and Objectives**

## **Flood Risk Management Policies**

### **Policy FL 1 – Flood Risk Management Guidelines**

It is the policy of Galway County Council to support, in co-operation with the OPW, the implementation of the EU Flood Risk Directive (2007/60/EC), the Flood Risk Regulations (SI No. 122 of 2010) and the DEHLG/OPW publication The Planning System and Flood Risk Management Guidelines (2009) (and any updated/superseding legislation or policy guidance). Galway County Council will also take account of the Shannon International and Western Catchment Flood Risk Assessment and Management Studies.

### **Policy FL 2 – Catchment Planning**

The Council will actively work with the CFRAM Programme and catchment based Flood Planning Groups, especially in the east of the County where catchments go beyond the Council's administrative boundary, in the development and implementation of catchment-based strategies for the management of flood risk - including those relating to storage and conveyance.

### **Policy FL 3 – Improvement and/or Restoration of Natural Flood Risk Management Functions**

Where resources are available and subject to compliance with the Habitats and Birds Directives, the Council will contribute towards the improvement and/or restoration of the natural flood risk management functions of flood plains.

### **Policy FL 4 – Principles of the Flood Risk Management Guidelines**

The Council shall implement the key principles of flood risk management set out in the Flood Risk Management Guidelines as follows:

- 1) Avoid development that will be at risk of flooding or that will increase the flooding risk elsewhere, where possible;
- 2) Substitute less vulnerable uses, where avoidance is not possible; and
- 3) Mitigate and manage the risk, where avoidance and substitution are not possible. Development should only be permitted in areas at risk of flooding when there are no alternative, reasonable sites available in areas at lower risk that also meet the objectives of proper planning and sustainable development. Development in areas which have the highest flood risk should be avoided and/or only considered in exceptional circumstances (through a prescribed Justification Test) if adequate land or sites are not available in areas which have lower flood risk.

### **Policy FL 5 – SFRA of Lower Tier Plans**

Lower tier plans shall undertake SFRA (Strategic Flood Risk Assessment) in compliance with the Flood Risk Management Guidelines and in consultation with the OPW. Flood Risk Management Objectives

### **Objective FL 1 – Flood Risk Management and Assessment**

Comply with the requirements of the DoEHLG/OPW. The Planning System and Flood Risk Management-Guidelines for Planning Authorities and its accompanying Technical Appendices Document 2009 (including any updated/superseding documents). This will include the following:

- a) Avoid, reduce and/or mitigate, as appropriate in accordance with the Guidelines;
- b) Development proposals in areas where there is an identified or potential risk of flooding or that could give rise to a risk of flooding elsewhere will be required to carry out a Site-Specific



Flood Risk Assessment, and justification test where appropriate, in accordance with the provisions of The Planning System and Flood Risk Management Guidelines 2009 (or any superseding document).

c) Development that would be subject to an inappropriate risk of flooding or that would cause or exacerbate such a risk at other locations shall not normally be permitted;

d) Galway County Council shall work with other bodies and organisations, as appropriate, to help protect critical infrastructure, including water and wastewater, within the County, from risk of flooding.

**Objective FL 2 – Surface Water Drainage and Sustainable Drainage Systems (SuDs)** Maintain and enhance, as appropriate, the existing surface water drainage system in the County. Ensure that new developments are adequately serviced with surface water drainage infrastructure and promote the use of Sustainable Drainage Systems in all new developments. Surface water runoff from development sites will be limited to pre-development levels and planning applications for new developments will be required to provide details of surface water drainage and Sustainable Drainage Systems proposals.

**Objective FL 3 – Protection of Waterbodies and Watercourses**

Protect waterbodies and watercourses within the County from inappropriate development, including rivers, streams, associated undeveloped riparian strips, wetlands and natural floodplains. This will include protection buffers in riverine, wetland and coastal areas as appropriate.

**Objective FL 4 – Flood Risk Assessment for Planning Applications & CFRAMS**

Site-specific Flood Risk Assessment (FRA) is required for all planning applications in areas at risk of flooding, even for developments appropriate to the particular Flood Zone. The detail of these site specific FRAs will depend on the level of risk and scale of development. A detailed site-specific FRA should quantify the risks, the effects of selected mitigation and the management of any residual risks. The Council shall have regard to the results of any CFRAM Studies in the assessment of planning applications.

**Objective FL 5 – SFRA/FRA & Climate Change**

SFRAs and site-specific FRAs shall provide information on the implications of climate change with regard to flood risk in relevant locations. The 2009 OPW Draft Guidance on 'Assessment of Potential Future Scenarios for Flood Risk Management' (or any superseding document) shall be consulted with to this effect.

**Objective FL 6 – FRA & Environmental Impact Assessment (EIA)**

Flood risk may constitute a significant environmental effect of a development proposal that in certain circumstances may trigger a sub-threshold EIS. FRA should therefore be an integral part of any EIA undertaken for projects within the County.

**Chapter 9: Heritage, Landscape & Environment Management****General Heritage Policies****Policy GH 1**

Conserve, protect and enhance the special character of the County as defined by its natural heritage and biodiversity, its built environment, landscape and cultural, social and sporting heritage.

**Policy GH 2**

Ensure that heritage protection is an integral part of coherent policies on economic and social development and of urban and rural planning.

**Policy GH 3**

Implement the legislative provisions of the Planning and Development Act 2000 (as amended), which offers protection to the architectural, archaeological and natural heritage. Policy GH 4 – Engage with all relevant stakeholders (and in particular local communities) in matters relating to the protection of natural, built and cultural heritage.

**Architectural Heritage Policies & Objectives****Architectural Heritage Policies****Policy AH 1 – Architectural Heritage**

Protect the Architectural Heritage of County Galway which is a unique and special resource.

**Policy AH 2 – Traditional Skills**

Maintain a database of traditional building skills, and promote training and awareness of the use of appropriate materials and skills within the local authority, community groups and owners and occupiers of traditionally built structures.

**Architectural Heritage Objectives****Objective AH 1 – Legislative Context**

Ensure the protection of the Architectural Heritage of County Galway which is a unique and special resource, in particular by implementing the legislative provisions of the Planning and Development Act 2000 (as amended) in relation to architectural heritage and the policy guidance contained in the Architectural Heritage Protection Guidelines 2011 (and any updated/superseding document).

**Objective AH 2 – Protected Structures**

Ensure the protection and sympathetic enhancement of structures included and proposed for inclusion in the Record of Protected Structures (RPS) that are of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest, together with the integrity of their character and setting.

**Objective AH 3 – Architectural Conservation Area**

Protect, conserve and enhance the essential character of any Architectural Conservation Area (ACA) through the appropriate management and control of the design, location and layout of new development, alterations or extensions to existing structures, surviving historic plots and street patterns and/or modifications to the character or setting of the Architectural Conservation Area. The

identification of areas of special interest may be considered during the lifetime of the Plan in either urban or rural settings. (See Map AH1)

#### **Objective AH 4 – Works Relating to Protected Structures & Architectural Conservation Areas**

Ensure that any development, modifications, alterations, or extensions materially affecting the character of a Protected Structure, or a structure adjoining a Protected Structure, or a structure within or adjacent to an Architectural Conservation Area (ACA), is sited and designed appropriately and is not detrimental to the character or setting of the Protected Structure or of the ACA. This will include the following:

- a) Works materially affecting the character of a Protected Structure or the exterior of a building/structure within an ACA will require planning permission.
- b) Any works carried out to a Protected Structure or the exterior of a building/structure within an ACA shall be in accordance with best conservation practice and use sustainable and appropriate materials. Works within the ACA shall ensure the conservation of traditional features and building elements that contribute to the character of the area. New proposals shall have appropriate regard to scale, plot, form, mass, design, materials, colours and function.

#### **Objective AH 5 – Demolition**

Prohibit development proposals, either in whole or in part, for the demolition of Protected Structures, save in exceptional circumstances, or the demolition of a structure within an Architectural Conservation Area that contributes to the special character of the area.

#### **Objective AH 6 – Vernacular Architecture**

Recognise the importance of the contribution of vernacular architecture to the character of a place and ensure the protection, retention and appropriate revitalisation and use of the vernacular built heritage, including structures that contribute to landscape and streetscape character and resist the demolition of these structures.

#### **Objective AH 7 – Local Place Names**

Protect local place names as an important part of the cultural heritage and unique character of an area. Support the use of appropriate names for new developments that reflect the character and heritage of the area and that contribute to the local distinctiveness of a place.

#### **Objective AH 8 – Energy Efficiency and Traditionally Built Structures**

Ensure that measures to upgrade the energy efficiency of Protected Structures and traditionally built historic structures are sensitive to traditional construction methods and use appropriate materials and do not have a detrimental impact on the material, aesthetic or visual character of the building.

#### **Objective AH 9 – Local Landscape and Place Assessment**

To support proposals from local communities including Tidy Town Committees, Chambers of Commerce and residents groups in analysing the character of their place and promoting its regeneration for their own use and enjoyment and that of visitors to the area.

#### **Objective AH 10 – Designed Landscapes**

Identify and evaluate the surviving historic designed landscapes in the County and promote the conservation of their essential character, both built and natural.

**Objective AH 11 – Custodianship**

Promote an inter-disciplinary approach demonstrating best practice with regard to the custodianship of Protected Structures, Recorded Monuments and elements of built heritage.

**Archaeological Heritage Policies & Objectives****Archaeological Heritage Policies****Policy ARC 1 – Legislative Context**

It is the policy of Galway County Council to support and promote the conservation and appropriate management and enhancement of the county's archaeological heritage within the Plan area. Galway County Council will ensure the implementation of the legislative, statutory and policy provisions relevant to the conservation of the archaeological heritage.

**Policy ARC 2 – Archaeological Sites**

Seek to promote awareness of and access to archaeological sites in the county where appropriate.

**Policy ARC 3 – Consultation**

Consult with the National Monuments Service of the Department of Arts Heritage and the Gaeltacht in relation to proposed developments adjoining archaeological sites.

**Policy ARC 4 – Management of Archaeological Sites and Monuments**

Support the preservation, conservation and management of archaeological sites and monuments, together with the settings of these monuments.

**Policy ARC 5 – Archaeological Heritage**

Ensure the protection and sympathetic enhancement of Archaeological Heritage in the Plan Area, in particular by implementing the relevant provisions of the Planning and Development Act 2000 (as amended), The National Monuments Act, 1930 (as amended), and The National Policy on Town Defences 2008 (Department of the Environment, Heritage and Local Government).

**Archaeological Heritage Objectives****Objective ARC 1 – Protection of Archaeological Sites**

Protect archaeological sites and monuments and their settings, archaeological objects and underwater archaeological sites that are listed in the Record of Monuments and Places, in the ownership/guardianship of the State, or that are subject of Preservation Orders or have been registered in the Register of Historic Monuments and seek to protect important archaeological landscapes.

**Objective ARC 2 – Development Management**

All planning applications for new development, redevelopment, any ground works, refurbishment, and restoration, etc. within areas of archaeological potential or within close proximity to Recorded Monuments or within the historic towns of County Galway (Ardrahan, Athenry, Dunmore, Eyrecourt, Loughrea and Tuam) will take account of the archaeological heritage of the area and the need for archaeological mitigation.

**Objective ARC 3 – Protection of new Archaeological Sites** Protect and preserve archaeological sites, which have been identified subsequent to the publication of the Record of Monuments and Places.

**Objective ARC 4 – Burial Grounds** Protect the burial grounds, identified in the Record of Monuments and Places, in co-operation with the National Monument Service of the Department of Arts, Heritage and the Gaeltacht. Encourage the local community to manage burial grounds in accordance with best conservation and heritage principles.

**Objective ARC 5 – Battlefield Sites** Protect the Battle of Aughrim site and other battlefield sites and their settings. Refer all planning applications within the battlefield sites and their environs to the Monument Service of The Department of Arts, Heritage and the Gaeltacht for their consideration.

**Objective ARC 6 – Underwater Archaeological Sites** To protect and preserve the underwater archaeological sites in rivers, lakes, intertidal and sub-tidal locations.

### **Objective ARC 7 – Recorded Monuments**

Ensure that any development in the immediate vicinity of a Recorded Monument is sensitively designed and sited and does not detract from the Monument or its visual amenity.

## **Natural Heritage & Biodiversity Policies & Objectives**

### **Natural Heritage and Biodiversity Policies**

#### **Policy NHB 1 – Natural Heritage and Biodiversity**

It is the policy of Galway County Council to support the protection, conservation and enhancement of natural heritage and biodiversity, including the protection of the integrity of European sites, that form part of the Natura 2000 network, the protection of Natural Heritage Areas and proposed Natural Heritage Areas and the promotion of the development of a green/ecological network within the Plan Area, in order to support ecological functioning and connectivity, create opportunities in suitable locations for active and passive recreation and to structure and provide visual relief from the built environment.

#### **Policy NHB 2 – Non-Designated Sites**

Recognise that nature conservation is not just confined to designated sites and acknowledge the need to protect non-designated habitats and landscapes and to conserve the biological diversity in the county.

#### **Policy NHB 3 – Green Infrastructure**

Protect existing green infrastructure and provide additional green infrastructure where possible.

#### **Policy NHB 4 – Water Resources**

Protect, conserve and enhance the water resources of the county, including, rivers, streams, lakes, wetlands, springs, turloughs, surface water and groundwater quality, as well as surface waters, aquatic and wetland habitats and freshwater and water dependant species and seek to protect and conserve the quality, character and features of inland waterways by controlling developments close to navigable and non-navigable waterways.

**Policy NHB 5 – Geological and Geo-Morphological Systems**

Protect, conserve and enhance important geological and geo-morphological systems in the county.

**Policy NHB 6 – National Biodiversity Plan, Galway County Heritage Plan & Galway County Biodiversity Plan**

It is the policy of the Council to support the implementation of the National Biodiversity Plan and Galway County Biodiversity Plan and Galway County Heritage Plan in partnership with relevant stakeholders subject to available resources.

**Policy NHB 7 - Invasive Species**

It is a policy of the Council to support measures for the prevention and eradication of invasive species. This will include the dissemination of information to raise public awareness, consultation with relevant stakeholders, the promotion of the use of native species in amenity planting and landscaping and the recording of invasive/native species as the need arises and resources permit.

**Policy NHB 8 – National Parks and Wildlife Service (NPWS) Management Plans**

It shall be the policy of the Council to ensure that development takes into account any relevant Management Plans prepared by NPWS for SACs and SPAs.

**Natural Heritage and Biodiversity Objectives****Objective NHB 1 – Protected Habitats and Species**

Support the protection of habitats and species listed in the Annexes to and/or covered by the EU Habitats Directive (92/43/EEC) (as amended) and Birds Directive (2009/147/EC), and regularly occurring-migratory birds and their habitats, and species protected under the Wildlife Acts 1976-2000 and the Flora Protection Order.

**Objective NHB 2 – Biodiversity and Ecological Networks**

Support the protection and enhancement of biodiversity and ecological connectivity within the Plan Area, including woodlands, trees, hedgerows, semi-natural grasslands, rivers, streams, natural springs, wetlands, stonewalls, geological and geo-morphological systems, other landscape features and associated wildlife where these form part of the ecological network and/or may be considered as ecological corridors or stepping stones in the context of Article 10 of the Habitats Directive.

**Objective NHB 3 – Water Resources**

Protect the water resources in the Plan Area, including rivers, streams, lakes, wetlands, springs, turloughs, surface water and groundwater quality, as well as surface waters, aquatic and wetland habitats and freshwater and water dependent species in accordance with the requirements and guidance in the EU Water Framework Directive 2000 (2000/60/EC), the European Union (Water Policy) Regulations 2003 (as amended), the Western River Basin District Management Plan 2009- 2015, Shannon International River Basin Management Plan 2009-2015 and other relevant EU Directives, including associated national legislation and policy guidance (including any superseding versions of same).

**Objective NHB 4 – Geological and Geo-Morphological Systems**

Protect and conserve geological and geo-morphological systems, sites and features from inappropriate development that would detract from their heritage value and interpretation and

ensure that any Plan or project affecting karst formations, eskers or other important geological and geomorphological systems are adequately assessed with regard to their potential geophysical, hydrological or ecological impacts on the environment.

**Objective NHB 5 – Control of Invasive and Alien Invasive Species**

Where the potential for spread of invasive species are identified as part of a development proposal the developer will be required to submit an invasive species management plan. A landscaping plan will be required for developments near water bodies and ensure that such plans do not include alien invasive species.

**Objective NHB 6 – Protection of Bats and Bats Habitats**

Seek to protect bats and their roosts, their feeding areas, flight paths and commuting routes. Ensure that development proposals in areas which are potentially important for bats, including areas of woodland, linear features such as hedgerows, stone walls, watercourses and associated riparian vegetation which may provide migratory/foraging uses shall be subject to suitable assessment for potential impacts on bats. This will include an assessment of the cumulative loss of habitat or the impact on bat populations and activity in the area and may include a specific bat survey. Any assessment shall be carried out by a suitably qualified professional and where development is likely to result in significant adverse effects on bat populations or activity in the area, development will be prohibited or require mitigation and/or compensatory measures, as appropriate.

**Objective NHB 7 – Eskers**

Assess applications for quarrying and other proposed developments that are in close proximity to eskers that have the potential to impact on their landscape, scientific or amenity value.

**Objective NHB 8 – Coastal Zone** Conservation works undertaken in coastal areas will be in accordance with best practice and support measures to protect the coast, the coastal edge and coastal habitats. Control the unauthorised removal of sand and related beach material. Protect, enhance and conserve the beaches in the county from inappropriate development. Seek to maintain the current status of the designated Blue Flag beaches and Green Coasts and to increase the number of beaches and coasts holding this status in the future. Facilitate and Integrated Coastal Zone Management approach to ensure the conservation, management and protection of man-made and natural resources of the coastal zone.

**Objective NHB 9 – Inland Waterways**

Protect the amenity and recreational value of navigable and non-navigable waterways.

**Objective NHB 10 – Protection of the Coastal Zone** Protect the amenity, character, visual, recreational, economic potential and environmental values of the coast. Ensure that natural coastal defences including sand dunes, beaches and coastal wetlands are not compromised by inappropriate development. Conserve the character, quality and distinctiveness of seascapes.

**Objective NHB 11 – Trees, Parkland/Woodland, Stone Walls and Hedgerows**

- a) Protect important trees, tree clusters and hedgerows within the county and ensure that development proposals take cognisance of significant trees/tree stands. Ensure that all planting schemes use suitable native variety of trees, of Irish provenance.

b) Seek to retain natural boundaries, including stone walls, hedgerows and tree boundaries, wherever possible and replace with a boundary type similar to the existing boundary where removal is unavoidable. Discourage the felling of mature trees to facilitate development and encourage tree surgery rather than felling where possible. All works to be carried out in accordance with the provisions of the Forestry Act, 1946.

**Objective NHB 12 – Soil/Ground Water Protection** Developments shall ensure that adequate soil protection measures are undertaken, where appropriate, including investigations into the nature and extent of any soil/groundwater contamination.

**Objective NHB 13 – NPWS & Integrated Management Plans** Galway County Council shall engage with the National Parks & Wildlife Service to ensure Integrated Management Plans are prepared for all Natura sites and ensure that plans are fully integrated with all land use and water management plans in the county, with the intention that such plans are practical, achievable and sustainable and have regard to all relevant ecological, cultural, social and economic considerations and with special regard to local communities.

## **Landscape Conservation & Management Policies & Objectives**

### **Landscape Conservation & Management Policies**

#### **Policy LCM 1– Preservation of Landscape Character**

Preserve and enhance the character of the landscape where, and to the extent that, in the opinion of the Planning Authority, the proper planning and sustainable development of the area requires it, including the preservation and enhancement, where possible of views and prospects and the amenities of places and features of natural beauty or interest.

### **Landscape Conservation & Management Objectives**

#### **Objective LCM 1 – Landscape Sensitivity Classification**

The Planning Authority shall have regard to the Landscape Sensitivity Classification of sites in the consideration of any significant development proposals and, where necessary, require a Landscape/Visual Impact Assessment to accompany such proposals. This shall be balanced against the need to develop key strategic infrastructure to meet the strategic aims of the Plan.

#### **Objective LCM 2 – Landscape Sensitivity Ratings**

Consideration of Landscape Sensitivity Ratings shall be an important factor in determining development uses in areas of the County. In areas of high Landscape sensitivity, the design and the choice of location of proposed development in the landscape will also be critical considerations.

#### **Objective LCM 3 – Open/Unfenced Landscape**

Preserve the status of traditionally open/unfenced landscape. The merits of each case will be considered in light of landscape Sensitivity Ratings and views of amenity importance.



**Focal Point and Views Objective****Focal Point and Views Objective****Objective FPV 1 – Development Management**

Preserve the focal points and views as listed in Map FPV1 from development that in the view of the Planning Authority would negatively impact on said focal points and views.

**World Heritage Objective****World Heritage Objective WH 1 - Tentative World Heritage Sites**

Protect the outstanding universal value of the tentative World Heritage Sites in County Galway namely the Western Stone Forts and the Burren that are included in the UNESCO Tentative List, Ireland 2010 and engage with other national and international initiatives which promote the special built, natural and cultural heritage of places in the county.

**Chapter 10: Cultural, Social and Community Development****Gaeltacht Policies****Policy G 1 – Preserving and Promoting the Gaeltacht in the Planning Process**

The Council through the Gaeltacht Local Area Plan 2008-2018 has outlined Policies and Objectives to protect and encourage the social, cultural and linguistic heritage of the Gaeltacht, whilst seeking to realise the economic and development potential of the Gaeltacht in a balanced and sustainable manner over the lifetime of the Plan.

**Policy G 2 – Economic Development in the Gaeltacht**

Galway County Council, through its Economic Development role, is committed to working closely with all the statutory development agencies, especially Údarás na Gaeltachta, to achieve sustainable development in the Galway Gaeltacht while protecting and promoting the Irish language as the first community language of the area.

**Policy G 3 – The Irish Language as an Asset**

Recognise the economic, social and cultural importance of Irish in the Gaeltacht and throughout the county.

**Policy G 4 – Official Languages Act 2003**

Support and implement the recommendations of the Official Languages Act 2003 (or any superseding or updated version of same.)

**Gaeltacht Objective****Objective G 1 – Linguistic and Cultural Heritage of the Gaeltacht**

It shall be an objective of the Council to protect the linguistic and cultural heritage of the Gaeltacht and to promote Irish as the community language.

## **Islands Policies and Objectives**

### **Islands Policies Policy IS 1 – Supporting the Islands**

Support the inhabited islands in County Galway and recognise the special planning and development needs of islands and islands communities, particularly access, infrastructure and services.

### **Islands Objectives**

#### **Objective IS 1 – Economic and Tourism**

Development on the Islands Support the economic and tourism development of the islands for the benefit of island communities generally and to encourage the development of speciality or niche economic sectors that might be appropriate to different islands.

#### **Objective IS 2 – Development Proposals on the Islands**

- (a) Support sustainable development proposals that contribute to the long term economic and social development of the islands
- (b) Priority shall be given to development that contributes to retention of the year-round population on the islands, that has a clear and identifiable economic and social benefit and that is compatible with the capacity of the local community to accommodate it.
- (c) Ensure that new development of any kind is sympathetic to the individual form and character of the islands landscapes and traditional building patterns.

## **Community Facilities & Services Policies & Objectives**

### **Community Facilities and Services Policies**

#### **Policy CF 1 – Community Facilities**

Assist where possible the development of community facilities and services within the county. Encourage and facilitate, where feasible the provision and extension of integrated community facilities to serve the needs of communities in the County.

#### **Policy CF 2 – Community & Voluntary Sector**

Support the strengthening of the Community and Voluntary sector throughout the County.

#### **Policy CF 3 – Education & Childcare Facilities**

Promote the provision of education opportunities for all groups in the County and the provision of day care and childcare facilities by both the public and private sectors in settlements and communities throughout the County.

#### **Policy CF 4 – Library Services**

Continue to promote the use of the library service and further develop each library as a community gathering place and learning hub.

#### **Policy CF 5 – Community & Cultural Needs**

Recognise the community and cultural needs of new communities in the county and promote the sharing of facilities in our towns and villages.

**Policy CF 6 – Burial Grounds**

Implement the ongoing programme for the provision and extension of burial grounds within available resources. The planning authority will seek to acquire lands where the extension of public burial grounds in the ownership or charge of the Council is likely to be necessary during the Plan period. Archaeologically significant medieval burial grounds will not be considered for extension if such an extension would constitute a proven risk to the archaeological heritage.

**Policy CF 7 – Art, Sports & Social Inclusion**

Support the implementation of the Council's Art's, Sports, Social Inclusion, the 'Integration and Diversity Strategy 2013-2015', 'Galway Age Friendly Strategy 2014-2019', and a Youth Support Programme and other appropriate plans and programmes that may be developed during the lifetime of this Plan.

**Policy CF 8 – Cultural Development in the County**

Actively encourage and support Arts organisations to achieve their full potential, while enhancing the artistic life of County Galway. The Council supports and develops organisations and individuals working in the Cultural and Creative Services.

**Community Facilities and Services Objectives****Objective CF 1 – Universal Accessibility, Universal Design and Social Inclusion**

Promote and support where possible the concept of universal accessibility, universal design and facilitate social inclusion through high standards of design in projects and plans.

**Objective CF 2 – Education Provision & Facilities**

Work closely with the Department of Education and Skills and the Office of Public Works to identify and protect suitable sites for new educational facilities. Site reservations for primary and post primary schools shall be considered when developing Local Area Plans and this may include campus arrangements.

**Objective CF 3 – Crèche Facilities**

Require the provision of crèche facilities in mixed use/residential developments in accordance with the ministerial guidelines for Planning Authorities on Childcare Facilities published in 2001. The Planning Authority shall encourage the development of a broad range of childcare facilities, i.e. parttime, full day-care, after-school care, etc., including those based in residential areas, in employment areas and in areas close to where users of such facilities live. In general, childcare facilities outside of established settlements shall only be permitted adjacent to or in close proximity to existing educational or social facilities (national schools, rural shops/post offices, etc).

**Objective CF 4 – Sport, Amenity and Recreation**

Support and facilitate local communities, sporting organisations in the development of sport and recreational facilities. Seek to develop open spaces throughout the county which will support a range of recreational and amenity activities that provides for active and passive needs.

**Objective CF 5 – Play Facilities**

Support the development of Play facilities at suitable locations in the county in accordance with the National Play Strategy 'Ready Steady Play!'.

**Objective CF 6 – Burial Grounds**

Acquire lands where the extension of public burial grounds in the ownership or charge of the Council is likely to be necessary during the Plan period. Archaeologically significant medieval burial grounds will not be considered for extension if such an extension would constitute a proven risk to the archaeological heritage.

**Objective CF 7 – Elderly Services**

Consider favourably projects throughout the county that deliver services for the elderly or that integrate services for elderly and children.

**Objective CF 8 – Health Services**

Promote the continued improvement and expansion of health and medical care facilities within the county in a planned and co-ordinated way, by accommodating projects that assist in providing such medical care facilities, together with their necessary support services and developments, as well as their infrastructural requirements.

**Objective CF 9 – Support the Development of the Unique Culture of the County**

Facilitate the development of cultural infrastructure within communities throughout the County that will further enhance the cultural vibrancy of the County.

**Recreation & Amenity Policies & Objectives****Recreation and Amenity Policies****Policy RA 1 – Promotion of Recreation & Amenity**

Co-operate with various stakeholders in promoting and developing the recreational and amenity potential of the County and carry out appropriate development as and when resources permit.

**Policy RA 2 – Protection of Sensitive Areas**

Protect the amenity of scenic and environmentally sensitive areas and promote the knowledge and appreciation of the natural amenities of the County.

**Policy RA 3 – Walking and Cycle Routes**

Support cycling and walking and other such recreational groups and organisations in promoting their disciplines and developing routes and facilities.

**Policy RA 4 – Sports, Recreation, Amenity and Play Policy**

Develop and implement a Sports, Recreation, Amenity and Play Policy for the County within the lifetime of the Plan based on the recommendations of the Recreational Needs Study being undertaken by Galway County Council.

**Recreation and Amenity Objectives****Objective RA 1 – Swimming Facilities**

It is an objective of the Council to enhance the provision of swimming facilities throughout the county and ensure the quality of bathing water is maintained and to contribute towards the achievement of the requirements of the EU Bathing Water Directive and to transposing Bathing Water Quality

Regulations (SI No. 79 of 2008) and EU Mandatory Values, as a minimum and EU Guide Values, where possible.

#### **Objective RA 2 – Recreation Outlets**

It is an objective of the Council to support the provision of age friendly recreation outlets, including public parks, play areas, community allotments and walkways.

#### **Objective RA 3 – Recreation Facilities**

It is an objective of the Council to develop sport, recreation and amenity facilities in appropriate locations consistent with proper planning and sustainable development in the County and in partnership with local community and sports groups and/or private parties.

#### **Objective RA 4 – Allotments**

It is an objective of the Council to consider positively the provision of, or permission for, the development of allotments within rural and agricultural areas where they are accessible from the built-up area of the County, to be available to the community.

#### **Objective RA 5 – Clifden Greenway**

It is an objective of the Council to protect the alignment of the Clifden Railway Line as a Greenway and to support its completion.

#### **Objective RA 6 – Walking Routes/Rights of Ways**

Prohibit the intrusion of development along public walking routes and public rights of way, particularly those in scenic areas, the sea coast and along inland waterways.

#### **Objective RA 7 – Walking and Cycle Routes**

Support and promote programmes to develop walking and cycle routes including the Irish Trails Strategy and the Cycle Strategy for the Western Region.

### **Public Rights of Way Policy & Objective**

#### **Public Rights of Way Policy**

##### **Policy PRW 1 – Preservation of Public Rights of Way**

It is the Policy of the Council to preserve and protect verified public rights of way which give access to seashore, mountain, lakeshore, riverbank or other place of natural beauty or recreational utility.  
Public Rights of Way Objective

##### **Objective PRW 1 – Identification of Existing Public Rights of Way**

Seek to identify, map and protect verified existing public rights of way that give access to seashore, mountain, lakeshore, riverbank or other place of natural beauty or recreational utility as they become available to the Planning Authority over the lifetime of the Plan.

## **Social Inclusion and Universal Access Policies & Objectives**

### **Social Inclusion and Universal Access Policies**

#### **Policy SI 1 – Social Inclusion and Universal Access**

Support the principles of social inclusion and universal access and ensure that all individuals have access to goods, services, facilities and buildings in order to assist them to participate in and contribute to social and cultural life within County Galway.

#### **Policy SI 2 – Social Inclusion Programmes/Interventions**

Support the implementation of the requirements and provisions as set out in the Disability Act 2005, the National Action Plan for Social Inclusion 2007-2016 (including any updated or superseding document), including RAPID and CLÁR which support locally-based social inclusion interventions with emphasis on supporting people and communities suffering disadvantage and exclusion through a wide spectrum of locally promoted actions.

#### **Policy SI 3 – Implementation of Policy**

Implement the provisions of the County Galway Local Authorities Disability Action Plan 2007-2015 and the Social Inclusion Strategy (including any updated/superseding documents), Galway Age Friendly Strategy 2014-2019, Integration and Diversity Strategy 2013-2015, Galway Traveller Interagency Strategy, Galway LGBT Diversity Strategy; Irish National Positive Ageing Strategy.

#### **Policy SI 4 – Lifelong Learning**

Galway County Council shall support the concept of lifelong learning.

#### **Policy SI 5 – Ageing & the Family**

Work with NUI Galway and other partners to make County Galway a flagship for the integration of research and practice in the areas of ageing and family needs.

### **Social Inclusion and Universal Access Objectives**

#### **Objective SI 1 – Recognised Special Needs**

Consideration shall be given to individuals with recognised special needs in the location, layout and design of housing developments, communal facilities, public spaces and transport services.

#### **Objective SI 2 – Housing for the Elderly & People with Other Special Needs**

Ensure that appropriate units are developed in the housing market for the elderly, people with disabilities and other special needs households.

#### **Objective SI 3 – Proofing of Traffic Management Infrastructure**

Ensure that traffic management infrastructure is developed in accordance with road design manuals and in accordance with the DM Standards and Guidelines of this Plan to cater for all needs.

#### **Objectives SI 4 – Services and Rural Transport Networks**

The Council will support the development of new rural transport networks where gaps in services are identified.

**Objective SI 5 – Priorities for Traffic Management Policies in Urban Areas**

Progress traffic management policies that facilitates pedestrians and cycle users in conjunction with vehicular movement in urban centres and towns and villages.

**Objective SI 6 – Integrated Transport Strategy and Older Residents**

Develop a transport policy and integrated transport strategy to address the transport concerns of all residents and the broader community.

**Objective SI 7 – Community Safety and Infrastructure**

Promote and support the development of infrastructure that improves community safety.

**Objective SI 8 – World Health Organisation and Age Friendly Cities**

Consider the World Health Organisation (WHO) Checklist of Essential Features of Age Friendly Cities when implementing the County Development Plan.

**Objective SI 9 – Life Long Communities**

Facilitate all members of the community living at home in their own homes and communities for as long as possible.

**Chapter 11: Agriculture, Fishing, Marine Resources & Forestry****Agriculture, Fishing/Marine Resources and Forestry Policies****Policy AFF 1 – Agri-Food Sector, Fisheries/Marine Resources and Forestry**

The Council shall recognise innovative strategies in the agri-food sector, fisheries/marine resources and forestry within the County.

**Policy AFF 2 – Sustainable Management of Natural Resources**

Support the Department of Agriculture, Fisheries and Food Report titled 'Food Harvest: A Vision for Agri-Food and Fisheries 2020'.

**Agricultural Policies and Objectives****Agriculture Policies Policy AFF 3 – Sustainable Development of the Countryside**

Facilitate the sustainable development of the countryside. The Council recognises that the diversification of appropriate uses on rural landholdings may be necessary in order to ensure the continued viability of agriculture.

**Policy AFF 4 – Organic Farming and Rural Tourism**

The Council shall promote and support the organic farm sector (including the development of niche markets) and rural tourism initiatives including appropriate infrastructure to support such initiatives.

## **Agriculture Objectives**

### **Objective AFF1 – Sustainable Agriculture**

The Council shall support the sustainable development of agriculture, with an emphasis on a high quality, traceable primary production methods, the promotion of local food supply and agriculture diversification.

### **Objective AFF 2 – Rural Diversification**

Galway County Council shall support those who live and work in agriculture and /or related activities in rural areas and who wish to remain on their land holding. Accordingly the Council will favourably consider rural diversification intended to supplement farm income where the activity remains ancillary and compatible to the ongoing agricultural use of the farm and does not have an adverse impact on residential amenity:

- a) Specialist farming practices e.g. specialised animal breeding, equine facilities, poultry, mushroom growing, vegetable and fruit growing;
- b) Farm enterprises such as processing, animal pet farms/horse riding schools with an element of retail activity;
- c) The production of organic and speciality foods to meet the increase in demand for such products;
- d) The conversion of disused buildings/existing farm buildings for appropriate owner run, rural oriented, enterprises, as a way of supporting a viable rural community, subject to proper planning and sustainable development of the area;
- e) Support the development of appropriate agri-tourism activities and eco-tourism development proposals and promote the County as a green tourist destination.

### **Objective AFF 3 – Farmers Markets**

Support the establishment or facilitation of regularised local farmers markets within the towns and villages as outlined in the Core/Settlement Strategy in accordance with best practice and in a manner that is complementary to the existing market and retail activities of those towns and villages.

### **Objective AFF 4 – Intensive Agriculture Developments**

Have regard to S256 of the Planning and Development Act 2000 (as amended) which amends the EPA Act 1992 regarding the control of emissions when assessing intensive agricultural developments.

### **Objective AFF 5 – Compliance with the EU Habitats Directive**

New agricultural projects that may potentially affect Natura 2000 Sites, individually or in combination with other plans and projects shall be subject to Appropriate Assessment to ensure that there are no likely significant effects on the integrity of any Natura 2000 Sites in the County.

### **Objective AFF 6 – Drainage or Reclamation of Wetlands**

The Council will implement the relevant parts of the Planning and Development (Amendment) (No. 2) Regulations 2011 and the European Communities (Amendment to Planning and Development) Regulations 2011 which require planning permission to be applied for where the area impacted by works relating to the drainage or reclamation of a wetland exceeds 0.1 hectares or where such works



may have a significant effect on the environment. Such planning applications would need to be supported by an Appropriate Assessment where necessary.

### **Fishing & Marine Resource Policies and Objectives**

#### **Fishing and Marine Resource Policies**

##### **Policy AFF 5 – Implementation of the Shellfish Waters Directive**

Galway County Council will continue to work with local communities, relevant stakeholders and with the Department of Agriculture, Food and Marine to ensure the proper and successful implementation of the Shellfish Waters Directive along County Galway's coastline

##### **Policy AFF 6 – Sustainable Growth within Fishing and Marine Resource Sectors**

The Council shall support the sustainable development of fishing, marine resource enterprises and marine/ecotourism that is consistent with other policies of this Plan, so as to maximise their contribution to jobs and growth within the coastal and rural communities of the county and to the growth of the national economy.

##### **Policy AFF 7 – Integrated Approach**

The Council shall promote County Galway as a coastal county and shall seek to increase our awareness of the value, opportunities and social benefits of the sea. Galway County Council shall also support an integrated or ecosystem approach as outlined within the document 'An Integrated Marine Plan for Ireland Harnessing our Ocean's Wealth 2012' regarding future maritime development proposals in ensuring that ecological limits are respected and that development will not have significant adverse effects on the environment both on land and sea.

##### **Policy AFF 8 – Marine Research**

Promote and collaborate with NUIG and with the Galway Marine Institute in their Research and Development initiatives in harnessing employment opportunities in the marine sector (e.g. SmartBay Project). Fishing and Marine Resource Objectives

##### **Objective AFF 7 – Commercial Sea Fishing**

Galway County Council shall encourage and facilitate the sustainable development and expansion of the fishing industry while providing for the management and conservation of coastal habitats and ecosystems. Objective AFF 8 – Aquaculture The Council shall support and promote the sustainable development of the aquaculture sector in order to maximize its contribution to employment creation and growth in coastal communities whilst balancing environmental considerations.

##### **Objective AFF 9 – Inland Fishery Resources**

The Council shall support the County's valuable inland fishery resource and support its sustainable development and expansion through the protection of water and habitat quality and facilitation of ancillary infrastructure and improvements at appropriate locations.

**Objective AFF 10 – Marine Research**

Continue to support the further development of the existing NUIG marine research station at Maínis having regard to its long established land use on the site and its importance to the aquaculture industry to the local community and to the development of scientific knowledge.

**Objective AFF 11 – Development of Offshore Resources**

Galway County Council shall promote and support the development of sustainable off-shore resources such as offshore energy generating sites subject to the provisions of EU Directives including the Habitats Directive and Shellfish Directive.

**Objective AFF 12 – Marina Developments**

The Council shall support proposals for sustainable marina developments and associated amenities that are located at both existing marinas and at other appropriate and fully justified locations.

**Objective AFF 13 – Water Borne Transport**

Support the continued operation of ferry services between the islands and mainland in order to support coastal communities and to increase access for the tourism sector.

**Objective AFF 14 – Provision of Infrastructure**

Facilitate the provision of infrastructure, which is necessary for the development of the fishing, seaweed and Mari-culture industry. The provision of infrastructure, which is necessary for the development of the fishing and Mari-culture industry, should be located in proximity to established landing facilities.

**Objective AFF 15 – Aquaculture, Marine Enterprise and Biotechnology**

The Council shall encourage and support an integrated approach to marine enterprise as set out within the national Integrated Marine Plan titled ‘Harnessing Our Ocean Wealth 2012’. The Council shall consider appropriately located marine resourced enterprises within the County subject to proper planning and in compliance with environmental legislation. Ros an Mhíl shall be promoted as a location for a ‘maritime/marine cluster’.

**Forestry Policies and Objectives Forestry Policies****Policy AFF 9 – Forestry Recreation**

Co-operate with Coillte Teoranta, the Forest Service and private landowners in promoting greater public access and recreational use in the County. Support and promote the Forest Service ‘Neighbourwood Scheme’ which seeks to provide public access, recreation and enjoyment on such land in or near villages, towns within the country. Policy AFF 10 – Forestry and Climate Change In accordance with the National Climate Change Strategy 2007-2012 (including any updated/superseding Strategy) Galway County Council shall promote sustainable forestry development of appropriate scale within the County in order to address climate change directly through sequestration and indirectly through the displacement of fossil fuel.

**Forestry Objectives****Objective AFF 16– Sustainable Management**

Encourage sustainable forestry development and related management activities, including the promotion of mixed species forestry, particularly deciduous forestry as an alternative agriculture use.

Encourage phased and selective rather than clear felling and the promotion of green infrastructure networks.

**Objective AFF 17 – Sustainable Afforestation**

Facilitate afforestation in appropriate locations, in co-operation with Coillte and the Forest Service and in line with EU environmental and national legislation and policy.

**Objective AFF 18 – Afforestation and Landscape**

Consider the likely impact of forestry on landscape quality and visual amenity in any afforestation proposals brought before the Local Authority for comment. Refer to the Landscape Character Assessment and to the DM Standards and Guidelines of this Plan when considering such proposals.

**Objective AFF 19 – Bio-Energy**

Support the development of the bio-energy sector as an alternative agricultural use and have regard to the Bio-Energy Action Plan for Ireland 2007 (including any updated or superseding document), to the Department of Agriculture and Food Best Practice Manuals and Guidelines and to the Landscape Character Assessment when considering significant planting of bio-energy crops.

## Appendix V – NIS Mitigation Measures

### Box 1a: Mitigation measures in relation to habitat loss affecting European Sites – Cycle Network Greenways

### Box 1a: Mitigation measures in relation to habitat loss affecting European Sites – Cycle Network Greenways

#### GTS – Habitat Loss: Cycle Network Greenways

If the alignment of the Bearna Greenway, the Galway to Dublin Cycleway (Galway City to Oranmore), or the Galway to Oughterard Greenway will result in habitat loss within a European Site:

- a habitat survey of the affected area will be carried out to identify and classify the habitat types present (in accordance with the most recently published Annex I habitat classification guidance documents) to determine whether impacted habitat areas correspond with any of the QI Annex I habitats for which Lough Corrib SAC, Galway Bay Complex SAC or Ross Lake and Woods SAC are selected. A loss of any area of QI habitat, or any area of supporting habitat that in turn affects the QI habitat, would affect the conservation objectives supporting the habitat's conservation condition, resulting in an adverse effect on Site integrity
- if habitats in Lough Corrib SAC are likely to be affected and are assessed as being suitable to support the Sites' QI plant species (Slender green feather-moss - *Drepanocladus (Hamatocaulis) vernicosus* and Slender Naiad - *Najas flexilis*) an appropriate level of survey will be carried out to definitively support an assessment and conclusion of whether the proposed project will affect the conservation objectives supporting the species' favourable conservation status, and thus adversely affect the integrity of the SAC
- if aquatic habitats in Lough Corrib SAC are likely to be affected and are assessed as being suitable to support the Sites' aquatic QI species (Otter, Atlantic salmon, Sea lamprey, Brook lamprey, White-clawed crayfish or Freshwater pearl mussel) an appropriate level of survey will be carried out to definitively support an assessment and conclusion as to whether the proposed project will affect the conservation objectives supporting the species' favourable conservation status, and thus adversely affect the integrity of the SAC
- if aquatic and/or coastal habitats in Galway Bay Complex SAC are likely to be affected and are assessed as being suitable to support the Sites' aquatic/marine QI species (Otter and Harbour seal) an appropriate level of survey will be carried out to definitively support an assessment and conclusion as to whether the proposed project will affect the conservation objectives supporting the species' favourable conservation status, and thus adversely affect the integrity of the SAC
- an assessment will be made, based on an appropriate level of survey work to definitively support its conclusion, as to whether any habitat loss associated with the Galway to Oughterard Greenway will affect the conservation objectives supporting the favourable conservation status of the Lesser horseshoe bat roost for which the Ross Lake and Woods SAC is designated, and thus adversely affect the integrity of the SAC<sup>3</sup>
- if the greenways will result in habitat loss within Lough Corrib SPA/Inner Galway Bay SPA, an assessment will be made, based on an appropriate level of survey work to definitively support its conclusion, as to whether the habitat loss will affect the conservation objectives supporting the species' favourable conservation status, and thus adversely affect the integrity of the SPA. This assessment will also consider the effects of habitat loss in areas outside of the SPA in the context of whether these areas are important in supporting the SCI populations (i.e. constitute ex-situ sites as defined in the conservation objectives)

Any sections of the proposed greenways which will adversely affect the integrity of any European Site as a result of habitat loss or fragmentation, either alone or in-combination with any other plans or projects, or where such effects cannot be definitively ruled out, will not be progressed and an alternative will be implemented which avoids this impact.

<sup>3</sup> Although the Lesser horseshoe bat is known to be present within the Galway City and environs (*N6 Galway City Transport Project Route Selection Report*, (Arup, 2015)), the roost that forms the QI population for this European Site (Eborhall House) is 11km away from the nearest GTS project (the Galway to Oughterard Greenway), on the northern shore of Lough Corrib. This distance would be regarded to be beyond the normal core foraging range of the Eborhall House population and beyond the normal commuting range of this species except on exceptional occasions or over long periods of time – for example, bats dispersing and moving between areas in the wider landscape over a period of many years/generations.

**Box 1b: Mitigation measures in relation to habitat loss affecting European Sites - Public Transport Network, Non-greenway Cycle Network and Pedestrian Network (proposed bridge structures)**

**GTS – Habitat Loss: Public Transport Network and Non-greenway Cycle Network, and Pedestrian Network**

Generally, the Public Transport Network, Non-greenway Cycle Network, and Pedestrian Network project elements are currently described at a strategic level in terms of their location and function/role within the GTS. However, some, such as the proposed pedestrian bridge near the Salmon Weir Bridge or providing public transport infrastructure along the R336 in Salthill, have a more definite location described. The required ecological information and assessment required, as documented below, will be required to inform the development of the detailed design at the project stage.

Survey and assessment requirements to inform the detailed design of Public Transport Network, Non-Greenway Cycle Network, and Pedestrian Network project elements are listed below.

If elements of the Public Transport Network, the Non-Greenway Cycle Network or the Pedestrian Network will result in habitat loss within a European Site:

- a habitat survey of the affected area will be carried out to identify and classify the habitat types present (in accordance with the most recently published Annex I habitat classification guidance documents) to determine whether impacted habitat areas correspond with any of the QI Annex I habitats for which Lough Corrib SAC or Galway Bay Complex SAC are selected. A loss of any area of QI habitat, or any area of supporting habitat that in turn affects the QI habitat, would affect the conservation objectives supporting the habitat's conservation condition, resulting in an adverse effect on Site integrity
- if aquatic habitats in Lough Corrib SAC are likely to be affected and are assessed as being suitable to support the Sites' aquatic QI species (Otter, Atlantic salmon, Sea lamprey, Brook lamprey, White-clawed crayfish or the Freshwater pearl mussel) an appropriate level of survey will be carried out to definitively support an assessment and conclusion as to whether the proposed project will affect the conservation objectives supporting the species' favourable conservation status, and thus adversely affect the integrity of the SAC
- if aquatic and/or coastal habitats in Galway Bay Complex SAC are likely to be affected and are assessed as being suitable to support the Sites' aquatic/marine QI species (Otter and Harbour seal) an appropriate level of survey will be carried out to definitively support an assessment and conclusion as to whether the proposed project will affect the conservation objectives supporting the species' favourable conservation status, and thus adversely affect the integrity of the SAC
- if habitat areas within Inner Galway Bay SPA will be lost as a result of implementing any of these elements, an assessment will be made, based on an appropriate level of survey work to definitively support its conclusion, as to whether the habitat loss will affect the conservation objectives supporting the species' favourable conservation status, and thus adversely affect the integrity of the SPA. This assessment will also consider the effects of habitat loss in areas outside of the SPA in the context of whether these areas are important in supporting the SCI populations (i.e. constitute ex-situ sites as defined in the conservation objectives)

All of the assessments must also consider whether there is any potential for adverse effects on European Site integrity in-combination with other plans and/or projects.

Considering the general locations provided, the type of infrastructure development envisaged for each of these project elements, and the ecological information and assessment required to be carried out to inform their design, it is reasonable to assume that at the detailed design stage any potential for a project element to impact on the European Site as a result of habitat loss could, and will, be resolved through the exploration of alternative locations or designs whilst still fulfilling their function/role in supporting the overarching vision, guiding principles and strategic objectives/aims of the GTS.

Any proposed projects which will adversely affect the integrity of any European Site as a result of habitat loss or fragmentation, either alone or in-combination with any other plans or projects, or where such effects cannot be definitively ruled out, will not be progressed and an alternative will be implemented which avoids this potential impact.

**Box 1c: Mitigation measures in relation to habitat loss affecting European Sites – N6 GCRR**

**GTS – Habitat Loss: N6 GCRR**

Where the N6 GCRR landtake, to include lands for the site compounds and drainage design (or any other landtake requirements not specified at this stage in the project design), falls outside of the current corridor for the proposed road development, they will not be located in areas where they would adversely affect the integrity of Lough Corrib SAC, either alone or in-combination with any other plans or projects, as a result of habitat loss or fragmentation.

**Box 2a: General mitigation measures (excluding the N6 GCRR) relating to potential hydrogeological impacts affecting European Sites**

**GTS – Hydrogeology General**

As part of the design phase, all GTS projects will establish at the earliest possible stage of the feasibility/design process whether their construction or operation will interact with or affect groundwater. If groundwater impacts are likely, an assessment of the zone of influence of any such interaction will be carried out with respect to identifying if there is any risk of groundwater impacts affecting the hydrogeological regime supporting QI habitats/species in any European Sites.

Where any such impacts are identified, appropriate mitigation measures will be designed and implemented to ensure that the GTS project element will not adversely affect the integrity of any European Sites, either alone or in-combination with any other plans or projects, by impacting on the existing hydrogeological regime.

**Box 2b: Specific mitigation measures relating to the proposed N6 GCRR and potential hydrogeological impacts affecting European Sites**

**GTS – Hydrogeology N6 GCRR**

During construction/operation of the proposed tunnel at Lackagh Quarry there is a risk of groundwater impacts which could affect habitats within Lough Corrib SAC. The following mitigation measures are proposed to ensure that the proposed tunnel, and construction of western and eastern approaches to same, will not adversely affect the integrity of Lough Corrib SAC. These mitigation measures are based upon the results of a study carried out to qualify and quantify the potential impacts that may be associated with a tunnel at Lackagh Quarry. If additional mitigation measures are required at the detailed design stage of the N6 GCRR, these will be designed and implemented to ensure that any tunnel or excavations in this area will not adversely affect the integrity of any European Sites, either alone or in-combination with any other plans or projects, by impacting on the existing hydrogeological regime.

Works in the quarry outside and east of the SAC (Section 1)

A composite support system of rock bolts, steel mesh and sprayed concrete will be used to stabilise the quarry face. In the event that sprayed concrete is used, groundwater seepage from the quarry face will be facilitated by installing weep holes. The frequency of weep holes will be based on the expected groundwater seepage from the quarry face to reduce any water build-up behind the shotcrete layer.

The drainage network for the proposed road within Lackagh Quarry will collect all surface water from both carriageways on the eastern approach to the tunnel. The road drainage will be sealed and directed to a hydrocarbon interceptor and then to a containment pond. Following containment all water will enter an infiltration pond with a 1m constructed subsoil bed that will allow the treated water to recharge to ground. The pond is designed to accommodate a 100-year storm event, with 50% of volume to infiltrate to ground within 24 hours.

The proposed finished level of the proposed road will lie above the groundwater table, however, the embankment starter layer would in part be submerged during the winter groundwater high. In this regard the starter layer will be constructed so as not to dam groundwater in parts of the quarry floor.

Similarly, the drainage network will not be installed during the seasonal groundwater high so as to avoid the need for dewatering and groundwater lowering.

#### Construction of the tunnel section beneath the SAC (Section 2)

No groundwater dewatering of the bedrock aquifer will be permitted during construction works. No construction works will be permitted during periods of high groundwater periods where groundwater dewatering would be required to facilitate works. When the groundwater rise occurs all construction activities within the zone below the high winter groundwater level for the tunnel will cease and the operation made safe until groundwater levels drop, which may include the installation of berms to prevent groundwater entering or exiting the tunnel from the tunnel portal.

The hydrogeological study of Lackagh Quarry has identified a potential perched water table and flow path along a clay wayboard in the limestone sequence. The clay wayboard will be intersected by the tunnel and there may be inflows along it. These inflows will be managed during construction and allowed to infiltrate to ground along the tunnel section.

On sealing of the tunnel these inflows will be transferred laterally around the outside of the tunnel box section and to the groundwater table below.

To facilitate groundwater flow around the completed tunnel a drainage blanket up to the winter groundwater level (16.7m OD) will be incorporated during construction. It is envisaged that this will take the form of a drainage layer, drainage pipes or similar placed outside the permanent cast in-situ reinforced concrete tunnel lining and waterproof membrane.

#### Construction of western approach to the tunnel outside the SAC (Section 3)

No dewatering of the bedrock aquifer will be permitted due to the sensitive nature at the groundwater dependant habitat at nearby Coolagh Lakes.

Where excavation into subsoils below the winter groundwater level is required, an additional geotechnical investigation to establish the overburden permeability will be required to determine if inflows to the excavation will occur from the bedrock aquifer. In the case that inflow is likely below the winter groundwater level then construction below the winter groundwater level will not be permitted. The additional geotechnical investigation will calculate groundwater seepage based on an assessment of permeability, thickness of overburden between the excavation and the bedrock aquifer and geotechnical stability.

A watertight seal will be installed on the underside of the road base and the cutting sides to protect against groundwater inflow. This area will be sealed during construction (and permanently) to 17.7mOD; which is derived from the groundwater high (15.7m OD) plus 2m free board. Slope or retaining structures will be utilised from +17.7mOD to existing ground level where required.

Runoff will be collected by a sealed drainage system and discharged to ground by infiltration ponds to the west.

#### Operation of the tunnel

All wash water entering the tunnel on vehicles will be collected in a sealed drainage system and pumped to foul sewer for treatment at a municipal facility.

### **Box 3: Mitigation measures relating to habitat degradation from construction of the tunnel at Lackagh Quarry affecting European Sites**

#### **GTS – Habitat degradation – tunnelling/excavation (N6 GCRR)**

During construction of the proposed tunnel at Lackagh Quarry there is a risk of impacts to habitats above in Lough Corrib SAC or to adjacent habitats in the SAC along the alignment of the western approach to the tunnel. The following mitigation measures are proposed to ensure that the proposed Lackagh Tunnel, and construction of the western and eastern approaches to same, will not adversely affect the integrity of Lough Corrib SAC via this impact pathway. These mitigation measures are based upon the results of a study carried out to qualify and quantify the potential impacts that may be associated with a tunnel/excavations at Lackagh Quarry. If additional mitigation measures are required at the detailed design stage of the N6 GCRR, these will be designed and implemented to

ensure that any tunnel or excavations in this area will not adversely affect the integrity of any European Sites, either alone or in-combination with any other plans or projects, via this impact pathway.

#### Works to the quarry face (Section 1)

A composite support system of rock bolts, steel mesh and sprayed concrete will be used to stabilise the quarry face. The proposed works will be completed prior to the tunnel excavation and be limited to the quarry face. These rock face protective measures will limit movement within the rock mass resulting in no adverse impact to the Limestone pavement.

During the construction of the tunnel the Lackagh Quarry stabilised face will be monitored for movement and cracks to ensure no impact to the Limestone pavement. In the unforeseen event that movement is observed additional support systems will be installed.

During operational phase of the tunnel continued monitoring will take place to ensure that further stabilisation measures are implemented to protect against any further movement or instability within the rock mass surrounding the tunnel portal. During the operational stage of the tunnel there will be no adverse impact on the Limestone pavement.

#### Construction of the tunnel (Section 2)

- Each individual tunnel will maintain at least 8m of clear rock above the tunnel crown to the ground level of Lough Corrib SAC. This eight meters allows a sufficiently stable rock arch to develop around the tunnel which will ensure the stability of the tunnel in the temporary case
- The minimum clear distance of seven meters will be maintained between the twin mined tunnel based on the strength of the rock and expected size of the tunnels
- Pre-support measures will be installed at the quarry face around the proposed tunnel portal to prevent collapse into the quarry
- The blasting charge weights used for excavation will be limited to cater for the proximity of sensitive receivers. Following a preliminary assessment, vibrations of 25mm/sec will not adversely impact the Limestone pavement environment. During the blasting period the Limestone pavement will be monitored to establish if vibration in excess of 25mm/sec are feasible whilst not affecting the Limestone pavement
- Pre-support measures when required in the form of sub-horizontal spiles will be implemented which provide a stiffer support in addition to the rock bolts and sprayed concrete. These additional measures provide an extra level of safety to the temporary works ensuring there is no impact
- Temporary works in the tunnel in the form of steel arch supports, rock bolts and sprayed concrete will be installed to form a reinforced rock arch support allowing the tunnel to be excavated without causing risk of collapse

#### Construction of western approach to the tunnel (Section 3)

Retaining systems will be installed to retain the Annex I habitat where required, this is generally where there is insufficient area (footprint) for self-supporting earthworks slopes between the existing ground level and to 17.7mOD as outlined in Box 2b. These locations are known as 'pinch points'.

Retaining systems are dependent on the ground conditions in the pinch point locations. The proposed retaining systems that will be used to control these impacts include:

1. Rock bolts, rock dowels, steel mesh, sprayed concrete in areas of rock only
2. Piled retaining walls, supported with ground anchors in areas of overburden only and in areas with a combination of overburden and rock

The exposed rockface surrounding the western tunnel portal will be continuously assessed during excavation. Where required stability control measures will be implemented in the form of rock bolts, steel mesh and sprayed concrete.



#### **Box 4: Mitigation measures relating to habitat degradation, through construction-related water quality impacts, affecting European Sites**

##### **GTS – Habitat degradation – water quality (construction)**

As part of the design phase, all GTS projects will assess the risk of construction works affecting water quality. This will consider factors such as: the nature and scale of the works proposed; materials to be used (e.g. hazardous chemicals/substances such as hydrocarbons and cement based products); and the presence of, or proximity of the construction site to, potential pollution pathways via surface water or drainage features.

Best practice construction methodologies will be followed in relation to the protection of watercourses in accordance with the following guidance, where applicable:

- Guidelines on Protection of Fisheries during Construction Works in and Adjacent to Waters (Inland Fisheries Ireland, 2016)
- Guidelines for the Crossing of Watercourses during the Construction of National Road Schemes (National Roads Authority, 2008)
- CIRIA C648: *Control of water pollution from linear construction projects: Technical Guidance*
- CIRIA C649: *Control of water pollution from linear construction projects: Site guide*

Where risks are identified, a pollution control plan will be prepared. The pollution control plan will include sufficient pollution control measures to ensure that silt, runoff, water pumped from excavations, cement based compounds, hydrocarbons, or any other hazardous chemicals would not significantly affect water quality in any receiving drainage features, watercourses, or waterbodies. Sufficient detail will be included in the pollution control plan to demonstrate that all measures included therein, will adequately address all the identified impact pathways and associated risks and will not affect water quality in receiving watercourses to a degree, either alone or in-combination with any other plans or projects, that would adversely affect the integrity of any European Sites.

#### **Box 5a: Mitigation measures relating to habitat degradation as a result of water quality impacts during operation affecting European Sites – Park & Ride Facilities**

##### **GTS – Habitat degradation – water quality (operation) – Park & Ride Facilities**

The design of Park & Ride facilities will include sufficient pollution control measures to ensure that run-off or drainage discharges do not impact upon water quality in receiving watercourses resulting in adverse effects on the integrity of any European Sites, either alone or in-combination with any other plans or projects.

The type, design and scale of all pollution control measures will be appropriate to the scale and capacity of each Park & Ride site.

Pollution control measures will be monitored and maintained to ensure their effectiveness.

If required, at such time that future expansion or increases in capacity at the Park & Ride sites are required, pollution control measures will be upgraded to maintain the levels of pollution control required to protect water quality in receiving European Sites.

#### **Box 5b: Mitigation measures relating to habitat degradation as a result of water quality impacts during operation affecting European Sites – New Road Developments**

##### **GTS – Habitat degradation – water quality (operation) – New Road Developments**

The design of new road developments will include sufficient pollution control measures to ensure that run-off or drainage discharges do not impact upon water quality in receiving watercourses resulting in adverse effects on the integrity of any European Sites, either alone or in-combination with any other plans or projects.

The type, design and scale of all pollution control measures will be appropriate to the scale and capacity of the proposed road development. These may include grassed channels, swales, filter drains, wetlands, attenuation/detention/infiltration ponds, or other Sustainable Urban Drainage System (SUDS) measures.

Pollution control measures will be monitored and maintained to ensure their effectiveness.

### **Box 6: Mitigation measures relating to habitat degradation through shading impacts affecting European Sites**

#### **GTS – Habitat degradation – shading**

To inform the bridge designs, a habitat survey of all areas potentially at risk of shading impacts from a bridge structure will be carried out. The survey will identify and classify the habitat types present (in accordance with the most recently published Annex I habitat classification guidance documents) to determine whether affected habitat areas correspond with any of the QI Annex I habitats for which Lough Corrib SAC or Galway Bay Complex SAC are selected, and are at risk of shading related impacts. Effects on any area of QI habitat could affect the conservation objectives supporting the habitat's conservation condition, resulting in an adverse effect on Site integrity.

Where any such impacts are identified, alternative locations and/or designs will be developed to ensure that the bridge structures will not adversely affect the integrity of any European Sites, either alone or in-combination with any other plans or projects, as a result of shading impacts.

Considering the general locations provided for these bridge structures, and the ecological information and assessment required to be carried out to inform their design, it is reasonable to assume that at the detailed design stage any potential for a project element to impact on the European Site as a result of shading impacts could, and will, be resolved through the exploration of alternative locations or designs whilst still fulfilling their function/role in supporting the overarching vision, guiding principles and strategic objectives/aims of the GTS.

### **Box 7: Mitigation measures relating to European Sites from air quality impacts associated with the GTS**

#### **GTS - Habitat Degradation – Air Quality**

As part of the N6 GCRR design phase, an air quality assessment will be carried out to determine the air quality baseline and model/predict the air quality ZoI and increases in contaminants associated with the proposed road development (e.g. nitrogen oxides, particulate matter and heavy metals).

All habitats within European Sites, and within the air quality ZoI, will be surveyed to identify and classify the habitat types present (in accordance with the most recently published Annex I habitat classification guidance documents) to determine whether impacted habitat areas correspond with any of the QI Annex I habitats for which Lough Corrib SAC is selected and are at risk of air quality impacts, or any area of supporting habitat that in turn affects the QI habitat. These habitats will also be assessed in the context of whether they support any QI species of the SAC.

Where it is determined that there are habitats at risk from air quality related impacts, appropriate mitigation measures will be designed and implemented to ensure that the N6 GCRR will not adversely affect the integrity of Lough Corrib SAC, either alone or in-combination with any other plans or projects.

Best practice construction methods will be applied in relation to all construction work associated with GTS projects to minimise dust emissions during construction. Mitigation measures to prevent wind-blown dust affecting sensitive habitats will be implemented to prevent any long-term effects on QI habitats or adverse effects on the integrity of any European Sites. Such mitigation measures may include watering of the construction site/access roads, road cleaning, vehicle speed restrictions, and temporary physical barriers to prevent wind-blown dust.

### **Box 8: Mitigation measures relating to habitat degradation from non-native invasive species affecting European Sites**

#### **GTS - Habitat Degradation – Non-native Invasive Species**

All elements of the GTS will establish, through an appropriate level of survey, whether non-native species (listed on Schedule 3 of the European Communities (Birds and Natural Habitats) Regulations, 2011) are present in any areas affected by the proposed construction works or operational maintenance works.

If present, the species will be identified, locations mapped and an invasive species management plan prepared detailing the handling and control measures that will be implemented to ensure that the species concerned, or contaminated vector material, will be eradicated from the construction site and will not be allowed to spread or be introduced to other areas.

The invasive species management plan will also include management and control measures to prevent maintenance regimes during operation from spreading non-native invasive species where there is a risk of the project site becoming recolonised from any other infested areas.

### **Box 9: Mitigation measures relating to disturbance or displacement effects affecting European Sites**

#### **GTS – Disturbance/Displacement**

##### **Otter, Atlantic salmon, Sea lamprey, Brook lamprey (Lough Corrib SAC)**

##### **Otter, Harbour seal (Galway Bay Complex SAC)**

An appropriate level of survey will be required to identify if, and how, QI species utilise habitat areas potentially affected by disturbance/displacement effects associated with any elements in the GTS. The results of these surveys and any assessment defining the disturbance/displacement ZoI, will be sufficient to adequately inform an assessment (and definitively support its conclusions) as to whether the predicted disturbance/displacement effects would affect the conservation objectives supporting the species' favourable conservation status, and thus adversely affect the integrity of the SPA.

Where disturbance or displacement effects are predicted, appropriate mitigation measures will be designed and implemented to ensure that GTS elements will not adversely affect the integrity of the SPA, either alone or in combination with any other plans or projects, via this impact pathway.

If, despite the implementation of mitigation measures, there remains a risk that disturbance or displacement will adversely affected the integrity of any European Site(s), the project will not be progressed unless an alternative solution can be implemented which avoids/reduces the impact to a level that the integrity of the European Site(s) is(are) unaffected.

##### **Lesser horseshoe bat (Ross Lake and Woods SAC)**

An assessment will be made, based on an appropriate level of survey work to definitively support its conclusion, as to whether any disturbance or displacement effects associated with the Galway to Oughterard Greenway will affect the conservation objectives supporting the favourable conservation status of the Lesser horseshoe bat roost for which the Ross Lake and Woods SAC is designated, and thus adversely affect the integrity of the SAC; and

Where disturbance or displacement effects are predicted, appropriate mitigation measures will be designed and implemented to ensure that the greenway will not adversely affect the integrity of the SAC, either alone or in combination with any other plans or projects, via this impact pathway.

If, despite the implementation of mitigation measures, there remains a risk that disturbance or displacement will adversely affected the integrity of Ross Lake and Woods SAC, the portion of the greenway concerned will not be progressed unless an alternative can be implemented which avoids/reduces the impact to a level that the integrity of the European Site(s) is(are) unaffected..

##### **Wintering and Breeding Birds (Lough Corrib SPA, Inner Galway Bay SPA)**

An appropriate level of survey will be required to identify if, and how, SCI bird species utilise habitat areas potentially affected by disturbance/displacement effects associated with any elements in the GTS. This includes habitat areas within the SPA boundaries and important ex-situ habitat areas remote from the SPA. The results of these surveys and any assessment defining the disturbance/displacement ZoI, will be sufficient to adequately inform an assessment (and definitively support its conclusions) as to whether the predicted disturbance/displacement effects would affect the conservation objectives supporting the species' favourable conservation status, and thus adversely affect the integrity of the SPA.

Where disturbance or displacement effects are predicted, appropriate mitigation measures will be designed and implemented to ensure that GTS elements will not adversely affect the integrity of the SPA, either alone or in combination with any other plans or projects, via this impact pathway.

If, despite the implementation of mitigation measures, there remains a risk that disturbance or displacement will adversely affected the integrity of any European Site(s), the project will not be progressed unless an alternative solution can be implemented which avoids/reduces the impact to a level that the integrity of the European Site(s) is(are) unaffected.

**Box 10: Mitigation measures relating to barrier effects affecting European Sites****GTS – Barrier Effect****Otter, Atlantic salmon, Sea lamprey, Brook lamprey (Lough Corrib SAC)****Otter, Harbour seal (Galway Bay Complex SAC)**

Best practice will be followed in relation to bridge/culvert construction and design (including installing dedicated mammal passage facilities) to prevent barrier effects occurring on affected watercourses, in accordance with the following guidance, where applicable:

- Guidelines on Protection of Fisheries during Construction Works in and Adjacent to Waters (Inland Fisheries Ireland, 2016)
- Guidelines for the Crossing of Watercourses during the Construction of National Road Schemes (National Roads Authority, 2008)

A construction methodology and construction management plan will be prepared in relation to all bridge structures; both permanent structures and those installed temporarily to facilitate construction works. This will contain sufficient detail regarding the construction methodology and control measures in order to demonstrate that the construction works will not pose a barrier to aquatic species and will not adversely affect the integrity of any European Sites, either alone or in-combination with any other plans or projects, via this impact pathway.

If, despite the implementation of mitigation measures, there remains a risk that the project will adversely affected the integrity of any European Site(s) via this impact pathway, the project will not be progressed unless an alternative solution can be implemented which avoids/reduces the impact to a level that the integrity of the European Site(s) is(are) unaffected.

**Lesser horseshoe bat (Ross Lake and Woods SAC)**

If the Galway to Oughterard Greenway will be located within 2.5km of the Lesser horseshoe bat roost for which the Ross Lake and Woods SAC is designated an assessment will be made, based on an appropriate level of survey work to definitively support its conclusion, as to whether any predicted barrier effect will affect the conservation objectives supporting the species' favourable conservation status, and thus adversely affect the integrity of the SAC.

Where a barrier effect is predicted, appropriate mitigation measures will be designed and implemented to ensure that the greenway will not adversely affect the integrity of the SAC, either alone or in-combination with any other plans or projects, via this impact pathway.

If, despite the implementation of mitigation measures, there remains a risk that the barrier effect will adversely affected the integrity of Ross lake and Woods SAC, the portion of the greenway concerned will not be progressed unless an alternative can be implemented which avoids/reduces the impact to a level that the integrity of the European Site(s) is(are) unaffected.

**Box 11: Mitigation measures relating to mortality risk affecting European Sites****GTS – Mortality Risk****Otter (N6 GCRR operation) – [Lough Corrib SAC, Galway Bay Complex SAC]**

Mammal resistant fencing will be required to prevent Otter gaining access to the proposed road carriageway. The fencing will be constructed as per the specification described in the *Guidelines for the Treatment of Otters Prior to the Construction of National Road Schemes* (National Roads Authority, 2008). The precise location and extent of mammal resistant fencing in association with providing access under the proposed road will be finalised as part of the design process and will be based upon an appropriate level of survey to ensure that the proposed road development poses no mortality risk to the Otter population of Lough Corrib SAC, either alone or in-combination with any other plans or projects. The effectiveness of the mammal-resistant fencing will be monitored and maintained post-construction.

**Otter, Atlantic salmon, Sea lamprey, Brook lamprey, Harbour seal (construction works over water)**

Best practice construction methodologies will be followed in relation to the protection of watercourses in accordance with the following guidance, where applicable:

- Guidelines on Protection of Fisheries during Construction Works in and Adjacent to Waters (Inland Fisheries Ireland, 2016)
- Guidelines for the Crossing of Watercourses during the Construction of National Road Schemes (National Roads Authority, 2008)

A construction methodology and construction management plan will be prepared in relation to each of the proposed bridge structures. This will contain sufficient detail regarding the construction methodology and

control measures in order to demonstrate that the construction works pose no mortality risk to aquatic species beneath the construction zone and will not adversely affect the integrity of any European Sites, either alone or in-combination with any other plans or projects, via this impact pathway.

**Wintering and Breeding Birds - bridge collision risk [Lough Corrib SPA, Inner Galway Bay SPA]**

An appropriate level of survey will be required to identify if, and how, SCI bird species utilise habitat areas where new bridge structures are proposed. This will form the basis of an assessment as to what potential collision risk a bridge structure would pose to the bird species concerned, based on the location of the bridge structure and the design being considered. As part of an iterative process, the results of this assessment will also inform the bridge design. The design process will have regard to those design elements that contribute to the overall level of potential collision risk posed by bridge structures, with a view to minimising any such risk. Such design elements include deck profile and depth, height above the ground/river, and the design of the supporting structures (e.g. extent, height and density of supporting cables or piers). If an unacceptable level of risk remains, additional mitigation strategies will be explored to support a conclusion that any residual risk would not affect the conservation objectives supporting the favourable conservation condition of the SPAs SCI bird species, either alone or in-combination with any other plans or projects.

If, despite the implementation of mitigation measures, there remains a risk that the project will adversely affected the integrity of any European Site(s) via this impact pathway, the project will not be progressed unless an alternative solution can be implemented which avoids/reduces the impact to a level that the integrity of the European Site(s) is(are) unaffected.