

VARIATION NO. 1 TO THE GALWAY COUNTY DEVELOPMENT PLAN 2015-2021

SEA Statement

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1.0 Introduction and Background

1.1 Introduction and Background

Variation No.1 to the Galway County Development Plan 2015 – 2021 was adopted by the elected members of Galway County Council on the April 24th 2017. The purpose of Variation No.1 was to incorporate the aims and measures of the Galway Transport Strategy (GTS) that fall within the plan area of Galway County. The preparation of the GTS was also subject to a standalone SEA process.

The Galway County Development Plan 2015-2021 (CDP), which consists of a written statement and series of land use maps, is the primary tool available to Galway County Council to ensure that future developments in Galway County take place in a planned, structured and sustainable manner.

Galway County Council and Galway City Council in partnership with the National Transport Authority (NTA) prepared the Galway Transport Strategy (GTS). The aims of the GTS address the current and future transport requirements of the city and the settlements within the city environs, including some within the county area, and identifies the requirements for each mode of transport including walking, cycling, public transport and the private vehicle.

Galway County Council has varied the Galway County Development Plan 2015-2021 to incorporate the aims and measures of the GTS that fall within the county plan boundary through inclusion of the following:

- The development of a high frequency bus service comprising a cross-city network of bus services serving major routes and destinations and providing direct services for passengers wishing to travel to work on either side of the city, and improve east-west connectivity to include Bearna to Oranmore. These measures entail the implementation of bus lanes and removal of pinch points.
- The development of a regional and long distance bus network providing greater direct access to the catchment within the environs of the county.
- Use of Ceannt Station as a multi modal transport interchange and expansion in frequency of rail services where passenger demand is sufficient.
- Supplementation of the existing public transport systems with Park & Ride Facilities.
- Development of a high quality, dedicated cycling network in Galway City and environs comprising of three greenways connecting the Galway City into the county settlements. This includes Oranmore to the city centre and onwards to the Bearna Greenway; and the city centre to Oughterard Greenway.
- Development of an Orbital Route, identified as the N6 Galway City Ring Road project to accommodate the demand for car journeys that remain and is expected to increase in the future.

1.2 Purpose of the SEA Statement

This document is the Strategic Environmental Assessment (SEA) Statement for Variation No.1 to the Galway County Development Plan 2015-2021. The main purpose of the SEA Statement, as set out in Section 13(1) of the S.I. No. 436/2004 - Planning and Development (Strategic Environmental Assessment) Regulations 2004, as amended by S.I. No. 201/2011 - Planning and Development (Strategic Environmental Assessment) (Amendment) Regulations 2011, is to show:

- (a) how environmental considerations have been integrated into the variation,
- (b) how
 - (i) the environmental report prepared pursuant to article 13L,
 - (ii) submissions and observations made to the planning authority in response to a notice under section 13(2) of the Act, and
 - (iii) any consultations under article 13O, have been taken into account during the making of the variation,
- (c) the reasons for choosing the variation, as adopted, in the light of the other reasonable alternatives dealt with, and
- (d) the measures decided upon to monitor, in accordance with article 13R, the significant environmental effects of implementation of the variation.

Therefore the purpose of the SEA Statement is to provide information on and transparency for the decision-making process; 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 adopted Variation, as well as what arrangements are in place for monitoring.

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

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

1.3 Legislative 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 by
- **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*))

The SEA process including the preparation of the Environmental Report and this Statement for the proposed Variation has had 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.

1.4 SEA Process

In accordance with Section 13K of the Planning and Development Regulations 2001, as amended, Variation No.1 to the Galway County Development Plan 2015-2021 was screened for requirement for Strategic Environmental Assessment (SEA) and a formal SEA Scoping Report was prepared and issued to the statutory Environmental Authorities. Submissions were considered in the preparation of the Proposed Variation and associated SEA Environmental Report which provided an assessment of the consequences on the environment of carrying out the Draft Variation. Proposed Variation No. 1 and the SEA Environmental Report, together with a copy of the Natura Impact Report (NIR) and Strategic Flood Risk Assessment (SFRA) were placed on public display and observations and submissions were invited.

Submissions received on the Proposed of Variation No.1 and the Environmental Report were reviewed and considered prior to the finalisation of the Variation. This enabled a full assessment of the effects of proposed changes and amendments on the environment. The Elected Members of Galway County Council are obliged to take the Environmental Report into account when making the Variation, which was formally adopted on the April 24th 2017.

The legislation and guidelines governing the SEA process recommend that the preparation of the Plan/Variation, SEA and Appropriate Assessment (AA) should be integrated and iterative. **Figure 1.1** (below) provides a summary of the integrated nature of the Variation preparation and SEA process.



Figure 1.1 Outline of SEA Process of Variation No.1 to the Galway County Development Plan

The Environmental Report (ER) also outlines how the SEA process was carried out in tandem with the preparation of Variation No.1 and its accompanying Natura Impact Report. The SEA process, which included Strategic Review meetings and SEA/AA/Variation workshops, ensured that the Variation 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 Variation preparation to ensure that environmental considerations and environmental effects were considered in the formulation of strategic goals and development objectives.

2.0 Integration of Environmental Considerations into the Plan

2.1 Screening for Environmental Considerations

Environmental considerations have been examined by various environmental authorities at different stages of the variation making process.

It is also noted that prior to adoption of the Variation No. 1 into the Galway CDP, the drafting of the Galway Transport Strategy was itself subject to a separate SEA process, which 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.

The current SEA process ensures that the aims and measures relevant to the plan area of Galway County have also been subject to strategic environmental assessment in the context of the Galway County Development 2015-2021 and other local, regional and national plans.

The SEA Directive and Regulations state that full Strategic Environmental Assessment is a mandatory requirement in respect of certain Plans or Programmes, for example, Development Plans (City or County) where the population or target population of the area is 10,000 persons or more. Where SEA is not mandatory, such as in the case of a Variation to a Development Plan, Article 13K.(1) of the Planning and Development Regulations 2001, as amended, requires that SEA Screening be carried out.

The Screening Determination considered that implementation of the variation would set a framework for the delivery of other projects; and that some of these projects have potential for significant (either positive or negative) effects on the environment, including effects upon human beings and sensitive landscapes. Therefore, it was determined that the proposed Variation No.1 should be subject to Strategic Environmental Assessment.

Table 2.1 below sets out the SEA process and stages where consultations and the integration of environmental considerations occur.

Table 2.1 – 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 2A of S.I. No. 436/2004 - 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 2A of S.I. No. 436/2004 - Planning and Development (SEA) Regulations, as amended, screening concluded that the proposed Variation to the Galway CDP should be subject to full Strategic Environmental Assessment</p>
Scoping	<p>Scoping, which is the second stage in the SEA process, allows for an early indication of the potential of key issues, to be addressed in the Environmental Report (Stage 3) as set out in S.I. 436/2004, as amended and in Annex I of the SEA Directive.</p>

STAGE	DESCRIPTION
	<p>The Scoping Stage allows for consultation with the Statutory Authorities via a Scoping Report. This allows environmental authorities to highlight some of the significant issues at an early stage and ensure that these issues are firmly to the forefront when considering each of the policies and objectives of the Variation. Scoping ensures that the SEA examines environmental issues at the correct level of detail and reduces the risk of relevant environmental considerations not being addressed at the appropriate stage.</p>
<p>Consultation with Environmental Authorities</p>	<p>Submissions were received from: The Environmental Protection Agency. This was reviewed and incorporated into the SEA process as appropriate</p>
<p>Preparation of Proposed Variation No. 1 to the Galway CDP & SEA Environmental Report</p>	<p>A multi-disciplinary team were established to create policy consistent documents and to examine the effects on the environment of implementing the objectives and policies.</p> <p>Policies and Objectives created in the proposed Variation No. 1 to the Galway CDP were assessed in the Environmental Report and proposed measures relevant to the area examined.</p> <p>Feedback was received throughout the proposed Variation No. 1 preparation process & Environmental Report preparation</p> <p>Mitigation measures were discussed and chosen.</p> <p>Monitoring of implementation of proposed Variation was established.</p>
<p>Consultation</p>	<p>Consultation on proposed Variation No.1, the accompanying Environmental Report, Appropriate Assessment Screening and Strategic Flood Risk Assessment.</p>
<p>Evaluation of submissions</p>	<p>Evaluation of submissions and observations were carried out on the Variation, the Environmental Report, Strategic Flood Risk Assessment and Appropriate Assessment.</p>
<p>Finalisation of the Galway County Development Plan, Environmental Report & SEA Statement</p>	<p>Finalisation of Variation of the Galway CDP and SEA Environmental Report. Preparation of SEA Statement on how environmental considerations and consultations have been integrated into the final Variation to the Plan.</p>
<p>Monitoring</p>	<p>Monitoring of significant environmental effects over the lifetime of the Galway County Development Plan 2015-2021.</p>

2.2 Scoping

The Scoping of the Variation No. 1 to the Galway County Development Plan 2015-2021 was carried out in accordance with Article 5 (4) of the SEA Directive (2001/42/EC) and Article 13M of the Planning and Development Regulations 2001, as amended.

The principal purpose of the Scoping stage was 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 were given consideration in the Environmental Report and ultimately in the Variation itself. By highlighting some of the significant issues at an early stage, it ensured that these issues were firmly to the forefront when considering each of the policies and objectives of the Variation.

The scoping aspect involved consultation with the statutory consultees, providing an opportunity to comment on the highlighted potential 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 (now *Minister of Housing, Planning, Community and Local Government*)
- the Minister of Communications, Energy and Natural Resources (now *Minister of Communications, Climate Action and Environment*)
- the Minister of Agriculture, Food and the Marine
- the Minister of Arts, Heritage and the Gaeltacht (now *Minister of Arts, Heritage, Regional, Rural and Gaeltacht Affairs*); and
- the surrounding planning authorities of Galway City Council, Mayo County Council, Roscommon County Council, Offaly County Council, Tipperary County Council, and Clare County Council.

Galway County Council gave notice to the aforementioned Environmental Authorities of its intention to prepare a Variation to the Plan. A Scoping Report was prepared in order to facilitate consultation with statutory consultees. Consultees were requested to review the content of the report and comment on aspects they believe may require particular emphasis in the Variation, associated SEA Environmental Report and Appropriate Assessment documentation.

2.3 Statutory Consultations

Submissions were received from the following environmental authorities:

- The Environmental Protection Agency

Table 2.1 below outlines the issues raised in the submission and the response and how these issues have been addressed within the preparation of the Environmental Report.

Table 2.1 Review of EPA Scoping Submission

CONSULTEE AND COMMENTS	RESPONSE
Environmental Protection Agency (EPA)	
<ul style="list-style-type: none"> • Acknowledged receipt of the Scoping Report for the proposed Variation to the Galway CDP. 	Comments and suggestions have been considered in the

CONSULTEE AND COMMENTS	RESPONSE
<ul style="list-style-type: none"> • Provided an SEA Integration guidance document setting out the key environmental issues to be taken into account in the preparation of the SEA and Variation. 	preparation of the Environmental Report

2.3 Appropriate Assessment and Strategic Flood Risk Assessment

Appropriate Assessment, which derives from the Habitats Directive 92/43/EEC, was carried out in tandem with the Environmental Report. The Stage 2 AA concluded that, with appropriate mitigation measures, the Variation would not give rise to the effects on Natura 2000 sites.

A Strategic Flood Risk Assessment (SFRA) was also carried out and accompanied the proposed Variation to the Galway CDP. The findings of the SFRA were also considered in the preparation of this Environmental Report.

2.4 Public Consultations and Submissions or Observations on the Draft Variation

During the preparation of Variation No.1, an opportunity was provided to members of the public and interested parties to make a written submission on the Proposed Variation and associated documents.

On the 20th January 2017, Variation No.1 to the Galway CDP 2015-2021, the Environmental Report and the Natura Impact Report were published and placed on public display for 4 weeks until Friday 17th February 2017. A total of nine submissions were received which were reviewed by the plan-making team and Chief Executive within Galway County Council.

A report summarising the issues raised and the Chief Executive's (CE's) recommendation was presented to the Elected Members. The contents of each submission were considered in the preparation of the Chief Executive's Report. The report listed the persons that made submissions or observations during the public consultation period, summarised the issues raised in the submissions or observations and responded to each submission.

The responses and recommendations set out in the Chief Executive's Report were subject to SEA and AA screening and were considered to be appropriate and acceptable in terms of these requirements.

The CE's Report recommended one alteration to the Variation guided by a submission from the Northern & Western Regional Assembly (NWRA). This alteration to the Proposed Variation entailed a return to the original text of the CDP for Objective TII 12. The change reverted to the existing wording of the objective as follows:

From **Objective TI 12 – Noise**

Require all new proposed development, which is considered to be noise sensitive within 300m of existing, new or planned national roads, or roadways with traffic volumes greater than 8,200AADT, to include a noise assessment and mitigation measures if necessary with their planning application documentation. ~~The cost of mitigation measures shall be borne by the developer. Mitigation measures in order to protect the noise environment of existing residential development will be facilitated or enforced as necessary.~~

To Objective TI 12 – Noise

Require all new proposed development, which is considered to be noise sensitive within 300m of existing, new or planned national roads, or roadways with traffic volumes greater than 8,200AADT, to include a noise assessment and mitigation measures if necessary with their planning application documentation. **The cost of mitigation measures shall be borne by the developer. Mitigation measures in order to protect the noise environment of existing residential development will be facilitated or enforced as necessary.**

The alteration did not give rise to adverse environmental impacts.

2.5 Public Consultations and Submissions or Observations on the SEA Environmental Report

Only one submission, provided by the Environmental Protection Agency (EPA), made specific reference to the SEA Environmental Report that accompanied the Proposed Variation on public display. Table 2.1 below notes the issues raised in the EPA submission and outlines how these issues would be addressed in the final Environmental Report. This review and response was detailed in the Environmental Report Addendum to the Proposed Variation No.1 of the CDP.

Table 2.1 Review of EPA Submission

Item	Submission	Comment
1	General	
a)	EPA acknowledges the benefits of the GTS and the purpose of the Variation to incorporate into the County Plan	Content of submission is noted.
b)	EPA asks that the plan-making team considers promoting and supporting the achievement of 'zero or low carbon' emission transport options where possible and the need to move towards cleaner fuels.	<p>The suggestion is noted.</p> <p>It is national policy since 2009 that Ireland moves towards sustainable transport to reduce congestion and transport emissions, to support economic competitiveness and improve the quality of life for all.</p> <p>Variation No. 1 of the Galway County Development Plan 2015-2021 incorporates the aims and measures of the Galway Transport Strategy (GTS) where relevant within the plan area of Galway County. The GTS includes for incorporation of '<i>Smarter Travel – A Sustainable Transport Future</i>', a policy framework approved by the Government, which sets out measures to significantly increase the number of people walking, cycling and using public transport.</p> <p>Galway County Council is committed to delivering a sustainable transport vision for Galway where all elements of transport are working together to achieve an integrated transport solution, which will reduce the use of</p>

Item	Submission	Comment
		private car usage and promote a greater use of public transport, cycling and walking.
2	Air Quality	
a)	EPA notes the need to reduce greenhouse gas emissions – especially given transport sectors annual higher overall increases.	Content of submission is noted and this was reflected in monitoring section of final SEA Environmental Report.
b)	EPA notes that implementing GTS will assist in reducing NO _x emissions ...and suggests that 'Predicted impacts on NO _x concentrations in the atmosphere from any traffic management measures / changes should be determined in advance of implementing the Variation'	Content of submission is noted. Galway County Council has commented on the prediction of NO _x related impacts.
3	Additional Plans/Programmes to Consider	
a)	EPA asks that <u>Variation</u> includes a commitment to incorporate/promote relevant aspects of future ' <i>National Policy Framework for Alternative Fuels Infrastructure for Transport</i> '	Content of submission is noted and the document was incorporated into the relevant plans and policies referenced in final SEA Environmental Report.
b)	EPA asks that <u>Variation</u> includes a commitment to incorporate/reflects relevant transport-related commitments being considered in the ' <i>National (Climate Change) Adaption Plan</i> '	Content of submission is noted and the document was incorporated into the relevant plans and policies referenced in final SEA Environmental Report.
c)	EPA notes that variation should include reference to ' <i>National (Climate) Mitigation Plan</i> ', and that the ' <i>extent to which the projects referred to in the GTS have been subject to relevant environmental assessments, and also the extent to which they have been considered in the context of this Variation, should also be clarified</i> '	Content of submission is noted and the document was incorporated into the relevant plans and policies referenced in final SEA Environmental Report. It is noted that the GTS, and its referenced projects, have been subject to a separate SEA process.
d)	EPA notes that it would be useful ... to reference the National Landscape Strategy	Content of submission is noted and the document was incorporated into the relevant plans and policies referenced in final SEA Environmental Report.
4	EPA State of Environment Report 2016	

Item	Submission	Comment
a)	EPA notes that <i>The Variation 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 in implementing the Variation</i>	Content of submission is noted and a Strategic Environmental Objective was created to protect natural resources in the final SEA Environmental Report. It is noted that the GTS, and its referenced projects, have been subject to a separate SEA process.
b)	EPA notes that <i>The Plan should consider how to implement the above key actions (as relevant and where appropriate), taking into account the thematic areas described, to ensure proper planning and sustainable development is promoted in the lifetime of the Variation</i> . These key actions relate to: <i>Environment, Health and Wellbeing, Climate Change, Implementation of Legislation, Restore and Protect Water Quality, Sustainable Economic Activities, Nature & Wild Places and Community Engagement</i>	Content of submission is noted and was referenced in the final SEA Environmental Report. It is noted that the GTS, and its referenced projects, have been subject to a separate SEA process.
c)	EPA notes Irelands Environment website, which may be useful preparing the SEA-related environmental monitoring programme.	Environmental Report already provides for a monitoring programme and this was reviewed in light of the content of the submission.
5	Comments on the SEA Environmental Report (ER)	
a)	EPA notes that commitments should be given to linking CDP environmental related monitoring aspects	Content of submission is noted and this was reviewed in the final SEA Environmental Report.
b)	EPA acknowledges mitigation measures as described in ER	Content of submission is noted.
c)	EPA notes that <i>...the Variation should consider including a commitment which requires that projects arising out of the implementation of this variation will be carried out in accordance with the various environmental regulations and EU Directives including SEA, EIA, Habitats, WFD and Floods directives, as relevant and appropriate</i>	The GTS, which was subject to a separate SEA process, outlines the specific projects that comprise the strategy and considers the environmental regulations and EU Directives including SEA, EIA, Habitats, WFD and Floods directives, as relevant and appropriate.

2.6 Final Environmental Report

After the variation was adopted in April 2017, the Environmental Report was updated to take account both the public consultation stage, the SEA Addendum and the recommendations made by the EPA's submission on the Proposed Variation.

The final Environmental Report acknowledged additional plans as recommended by the EPA in their submission including:

- National Policy Framework for Alternative Fuels Infrastructure for Transport
- National (Climate Change) Adaption Plan 2012
- Draft National (Climate) Mitigation Plan 2017
- National Landscape Strategy 2015-2025

In order to address the EPA's recommendation to protect natural resources and environmental conditions from being degraded or exhausted, an additional Strategic Environmental Objective (SEO) was created stating '*Prevent degradation or exhaustion of natural resources in implementing of the Variation to ensure the economic and social well-being*'. This SEO was assessed against the policies and objectives of the Variation and where potential negative impacts arose, policies and objectives within the plan were identified that would ensure the protection of this environmental objective.

3.0 Alternatives

SEA Statements are required to include information on the reasons for choosing the plan or programme as adopted, in the light of the other reasonable alternatives considered.

The Variation incorporates the aims and measures of the Galway Transport Strategy (GTS) relevant to the Galway County plan boundary. In this regard, it was possible to reasonably examine only two options:

- Alternative 1: Do-Nothing Approach or Continuation of the Existing Galway CDP
- Alternative 2: Implementation of proposed Variation comprising the transportation measures of the Galway Transport Strategy.

The most preferable outcome arising from the Alternatives Assessment was Alternative 2, which provides for the 'Implementation of the proposed Variation to integrate the relevant transport measures from the GTS into the Galway CDP.

A comparative assessment of the two alternatives showed that the primary difference between continuing with the existing plan as outlined in Alternative 1 versus the incorporation of the transportation measures as outlined in Alternative 2 comprised the inclusion of a high frequency bus service and cross-city network for commuters from the plan area into the city as well as other measures of the GTS such as the proposed greenways and the proposed N6 GCRR.

The absence of the 'incorporation of the GTS measures in the area would result in projects being reviewed and implemented on an individual project by project basis rather than through a strategic and sequential approach. Continued reliance on private car use would prevail and no changes to the existing public transport would occur.

The introduction of a high frequency Cross-City Bus Network would have a positive impacts on the county population and human health, material assets and though potentially negative impacts may arise from the proposed N6 Galway City Ring Road (GCRR), the increase in public transport opportunities will serve to reduce the level of private vehicle transport, thereby reducing the overall contribution to Greenhouse Gas emissions.

Uncertain impacts arising from the proposed greenways and proposed N6 GCRR are present in both alternatives and both scenarios comprise of greenways, Park & Ride Facilities, cycle and bus networks and new road infrastructure. Therefore, impacts relating to biodiversity arising from these developments are uncertain in both scenarios and will require further assessment under Environmental Impact Assessment and Appropriate Assessment as required.

The medium to long-term outcome arising from the adoption of the aims and measures of the GTS into the Development Plan would allow for the provision of an effective high frequency bus network in Galway City resulting in both increased public transport usage in the city, improved corridors for alternative modes of transport and reduced congestion when travelling from the county into the city resulting in a positive impact on the population, health and air and climate that may not otherwise occur with an 'Do Nothing' approach.

4.0 Monitoring Programme

4.1 Introduction

Monitoring of the Variation and its implications on the environment is paramount to ensure that the environment is not adversely affected through its implementation. 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 avoid, reduce and offset any significant adverse effects.

The Galway Transport Strategy was itself subject to Strategic Environmental Assessment and the implementation of the strategy will also be subject to monitoring in its own right. This section and Section 10 of the Environmental Report contain proposals for monitoring the likely significant effects of implementing the Development Plan as varied.

4.2 Monitoring Indicators

Baseline 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 of the SEA Environmental Report. The indicators are based on the Strategic Environmental Objectives presented in Chapter 6 of the SEA Environmental Report and have been derived from knowledge of the existing environmental issues within the proposed Variation area and also from legislation, guidelines and higher level plans.

It is considered that a monitoring report on the implementation of the policies and objectives within the proposed Variation is important for the on-going and future implementation of the Strategy within the plan area of the Galway CDP. It is also considered appropriate that the monitoring on the implementation of the policies and objectives within the proposed Variation is incorporated into the monitoring programme for the Galway CDP.

Environmental indicator assessment during monitoring can show positive/neutral impacts or negative impacts on the environment. Where an indicator value highlights a positive/neutral impact on the environment, it is likely that the policies and objectives of the proposed Variation are well defined with regard to the environment. Conversely, where the objectives of the proposed Variation have a negative impact on the environment, it may be necessary to review the policies or objectives of the proposed Variation or to take some other form of intervention. For example, if an objective or policy is having a significant adverse impact, a change may be considered during the lifetime of the proposed Variation.

4.3 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, Transport Infrastructure Ireland (TII), the Environmental Protection Agency, the National Parks and Wildlife Service and the Central Statistics Office.

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.

4.4 Reporting

A monitoring evaluation report on the effects of implementing the Development Plan as varied is to be prepared in advance of the beginning of the review of the Plan. This report should address the indicators set out overleaf. Indicators and targets will be reviewed during the preparation of the monitoring evaluation report.

4.5 Responsibility

Galway County Council will have an overall responsibility for collating existing relevant monitored data, the preparation of preliminary and final monitoring evaluation reports, the publication of these reports and, if necessary, the carrying out of corrective action. In addition, a number of national organisations will also carry monitoring. Monitoring of air and climate related considerations will also be carried out by the Environmental Protection Agency, whereas monitoring of impacts on biodiversity are carried out at a national level by the National Parks and Wildlife. In addition to Galway County Council, the National Transport Authority and Transport Infrastructure Ireland will oversee changes relating to traffic and transport arising from the implementation of this Variation.

Table 4.1 Monitoring Environmental Measures

Environmental Component	Indicators	Targets	Responsibility	Frequency / Timing
BIODIVERSITY, FLORA & FAUNA	B1: Level of compliance with the Habitats and Birds Directives with regard to the protection of Natura 2000 Sites and Annexed habitats and species	B1: Maintenance of favourable conservation status for all habitats and species protected under national and international legislation to be unaffected by implementation of the Plan	B1: Galway County Council, National Parks & Wildlife, Dept of Housing, Planning, Community and Local Government.	Monitoring of environmental likely significant effects on measure by measure basis as particular elements of the Variation are developed and advanced. National Monitoring Report under Article 12 of the Birds Directive. (c. every 6 years).
	B2: Level of compliance with Article 10 of the Habitats Directive with regard to the management of features of the landscape which - by virtue of their linear and continuous structure or their function act as stepping stones (designated or not) - are of major importance for wild fauna and flora and essential for the migration, dispersal and genetic exchange of wild species	B2: No significant ecological networks or parts thereof which provide functional connectivity to be lost without remediation resulting from development provided for in the Plan	B2: Galway County Council, National Parks & Wildlife, Dept of Housing, Planning, Community and Local Government.	Monitoring of environmental likely significant effects on measure by measure basis as particular elements of the Variation are developed and advanced.
	B3: Impacts on relevant habitats, species, environmental features or other sustaining resources in designated sites including Wildlife Sites and level of compliance with the Wildlife Acts 1976-2010 with regard to the protection of	B3i: Number of significant impacts on relevant habitats, species, environmental features or other sustaining resources in designated sites including Wildlife Sites	B3: Galway County Council, National Parks & Wildlife, Dept of Housing, Planning, Community and Local Government.	Monitoring of environmental likely significant effects on measure by measure basis as particular elements of the Variation are developed and advanced.

Environmental Component	Indicators	Targets	Responsibility	Frequency / Timing
	species listed on Schedule 5 of the principal Act	resulting from development provided for by the Plan. B3ii: Number of significant impacts on the protection of species listed on Schedule 5 of the Wildlife Act 1976.		
	B4: Sustainability of existing sustainable rural management practices - and the communities who support them - to ensure the continuation of long established managed landscapes and the flora and fauna that they contain	B4: Sustain the population of the county involved in land management	B4: Galway County Council, National Parks & Wildlife,	Monitoring of Statutory Consultee inputs on environmental effects as particular elements of the Variation are developed and advanced.
POPULATION & HUMAN HEALTH	P1: Level of protection to populations and human health from exposure to incompatible land uses	P1: No spatial concentrations of health problems arising from environmental factors as a result of implementing the Plan	P1: Galway County Council, EPA,	On-going regular monitoring supplemented by data arising from the development and delivery of the Variation
SOILS INCLUDING GEOLOGY	S1: Level of damage to the hydrogeological and ecological function of the soil resource in County Galway	S1: Soil extent and hydraulic connectivity	S1: Galway County Council, EPA, GSI.	Internal monitoring of likely significant environmental effects on a project by project basis where potential for interaction with historical landfill sites occur.

Environmental Component	Indicators	Targets	Responsibility	Frequency / Timing
				Review of CORINE mapping (every c.5 years).
WATER	W1: The quality and status of surface waters	<p>W1i: To maintain and improve, where possible, the status of any surface water or affect the ability of any surface water to achieve 'good status' by 2015</p> <p>W1ii: To achieve - 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)</p>	W1i: Galway County Council, EPA, Western River Basin District Plan stakeholders	On-going regular monitoring supplemented by data arising from development and delivery of measures within the Variation.
	W2: Level of pollution and contamination of ground water	W2: Not to affect the ability of groundwater to comply with Groundwater Quality Standards and Threshold Values under Directive 2006/118/EC	W2: Galway County Council, EPA, Western River Basin District Plan stakeholders	On-going regular monitoring supplemented by data arising from development and delivery of measures within the Variation.
	W3: Compliance with the provisions of the Planning System and Flood Risk Management: Guidelines for Planning Authorities (DEHLG, 2009)	W3: Minimise developments granted permission on lands which pose - or are likely to pose in the future – a significant flood risk in compliance with The Planning System and Flood	W3: Galway County Council, EPA	On-going regular monitoring supplemented by data arising from development and delivery of measures within the Variation.

Environmental Component	Indicators	Targets	Responsibility	Frequency / Timing
		Risk Management Guidelines for Planning Authorities		
MATERIAL ASSETS	M1: Adequacy of new development and appropriate waste water treatment	M1: All new developments granted permission to be connected to and adequately and appropriately served by waste water treatment over the lifetime of the Plan	M1: Galway County Council, EPA	On-going regular monitoring supplemented by data arising from development and delivery of measures within the Variation.
	M2: Adequacy of drinking water that is both wholesome and clean.	M2: No non-compliances with the 48 parameters identified in the European Communities (Drinking Water) Regulations (No. 2) 2007 which present a potential danger to human health as a result of implementing the Plan.	M2: Galway County Council, EPA	On-going regular monitoring supplemented by data arising from delivery of measures within the variation.
	M3: Level of reduction in waste volumes, waste to landfill and improvement in recycling and reuse.	M3i: Minimise increases in and, where possible, reduce household waste generation M3ii: Maximise increases in packaging recovered (t) by self-complying packagers	M3: Galway County Council, EPA	Annually
	M4: Presence of existing natural resources.	M4: Prevent degradation or exhaustion of natural resources in implementing of the Variation to ensure the economic and social well-being	M4: Galway County Council, EPA	Annually

Environmental Component	Indicators	Targets	Responsibility	Frequency / Timing
AIR & CLIMATE	C1: Level of travel related emissions to air and to encourage modal change from car to more sustainable forms of transport.	C1: An increase in the percentage of the population travelling to work, school or college by public transport or non-mechanical means C1: Promote minimisation of greenhouse gas emissions to the atmosphere	C1: Galway County Council, TII, DTTAS, EPA	On-going regular monitoring supplemented by data arising from development and delivery of the measures within the Variation (every c.2 years).
CULTURAL HERITAGE	CH1: Protection of archaeological heritage including entries to the Record of Monuments and Places and/or their context	CH1: Protect entries to the Record of Monuments and Places - including Zones of Archaeological Potential (and their context of the above within the surrounding landscape where relevant) from adverse effects resulting from development which is granted permission under the Plan	CH1: Galway County Council, DAHG, Galway County Heritage Plan stakeholders	Monitoring of Statutory Consultee inputs on environmental effects as particular elements of the Variation are developed and advanced.
	CH2: Protection of architectural heritage including entries to the Record of Protected Structures and Architectural Conservation Areas and their context.	CH2: Percentage of entries to the Record of Protected Structures and Architectural Conservation Areas and their context protected from adverse effects resulting from development which is granted permission	CH2: Galway County Council, DAHG,	Monitoring of Statutory Consultee inputs on environmental effects as particular elements of the Variation are developed and advanced.

Environmental Component	Indicators	Targets	Responsibility	Frequency / Timing
		under the Plan		
LANDSCAPE	L1: Impacts on the landscape with regard to the County’s landscapes which are most valuable and most sensitive to change and protected focal points and views.	L1: No developments permitted which result in avoidable impacts on the landscape - especially with regard to the County’s landscapes which are most valuable and most sensitive to change and protected focal points and views - resulting from development which is granted permission under the Plan.	L1: Galway County Council, Failte Ireland	Monitoring of Statutory Consultee inputs on environmental effects as particular elements of the Variation 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

