

1. Introduction

1.1 Introduction

Galway County Council on behalf of itself and on behalf of Galway City Council pursuant to a Section 85 Agreement¹ submitted an application for approval under Section 51 of the Roads Act 1993 (as amended) (the “Section 51 Application”) for the proposed N6 Galway City Ring Road around Galway City, hereafter referred to as the proposed N6 GCRR to An Bord Pleanála (ABP) on 23 October 2018. The Section 51 Application included an Environmental Impact Assessment Report (2018 EIAR), an AA Screening Report and a Natura Impact Statement (2018 NIS) among other documentation submitted to ABP at that time. Galway County Council also at that time made the N6 Galway City Ring Road Protected Road Scheme 2018 and the N6 Galway City Ring Road Motorway Scheme 2018 which were also submitted to ABP for approval under Section 49 of the Roads Act 1993, (as amended).

On 4 April 2019, ABP requested further information in relation to the proposed N6 GCRR pertaining to the application for approval including detailed and scaled drawings of the main structures; a copy of the Route Selection Report; details of vegetation samples (Relève data) to support the habitat mapping in the study area; clarity on the extents of some habitats; clarity on some sections of the NIS, provision of a brief “in-combination” assessment which considers all the plans and projects together, rather than a pairwise with the proposed N6 GCRR, in the NIS; queries on birds, bats and other ecological issues; justification of the use of 2012 as the base year for the traffic assessment and the growth scenarios used for the traffic; and clarification on references in the EIAR. A detailed Response to this request for further information was submitted to ABP in August 2019². The Response material was also put on public display, adverts included in the Irish Independent, Tribune and the Galway Advertiser, along with letters sent to all parties included in the Protected Road Scheme and Motorway Scheme and statutory consultees inviting them and the public to make submissions.

An oral hearing commenced on 18 February 2020 and was suspended on 11 March 2020 due to Covid-19. It was reconvened again on 12 October 2020 and concluded on 4 November 2020. In response to queries raised during the oral hearing by the inspectors appointed by An Bord Pleanála, statutory consultees and members of the public in attendance at the oral hearing, various supplemental reports were prepared and information provided, all of which were submitted to An Bord Pleanála³.

ABP granted approval under Section 51 of the Roads Act 1993 (as amended) for the proposed N6 GCRR and approval under Section 49 of the Roads Act 1993 (as amended) for the N6 Galway City Ring Road Protected Road Scheme and N6 Galway City Ring Road Motorway Scheme on 6 December 2021 (with conditions and modifications)⁴.

Those approvals were challenged in the High Court by way of Judicial Review and ABP conceded to an order quashing the approvals on limited grounds and the applications for approval of the proposed N6 GCRR was remitted back to ABP by the High Court on 30 January 2023. In this regard the orders of the High Court stated that the applications for approval be remitted to the point of the conclusion of ABP’s Inspectors Report.

¹ A Section 85 Agreement has been entered into under the provisions of Section 85 of the Local Government Act 2001 between Galway County Council and Galway City Council and approved by Transport Infrastructure Ireland pursuant to Section 14 of the Roads Act 1993, as amended

² <http://n6galwaycityringroad.ie/Response/>

³ <http://n6galwaycityringroad.ie/>

⁴ <https://www.pleanala.ie/en-ie/case/302848> and <https://www.pleanala.ie/en-ie/case/302885>

“An Order remitting the said application for approval for a proposed road development under section 51 of the Roads Act 1993 as amended and the said applications for approval under section 49 of the Roads Act 1993 as amended for a motorway scheme and protected road scheme entitled “N6 Galway City Ring Road Motorway Scheme 2018 and Protected Road Scheme 2018” to the First Named Respondent to be considered in accordance with law such remittal to take effect from the point in time immediately after the submission of the Inspector’s Report (bearing the reference “ABP-302885-18 & ABP-302848- 18” and dated 22nd June 2021) to the Board”⁵

On 7 December 2023, ABP requested further information (RFI) (Ref: ABP-318220-23⁶) from Galway County Council in relation to the application for approval of the proposed N6 GCRR as follows:

- *Having regard to the passage of time since the applications were lodged and the decisions made by the Board you are invited to update the motorway scheme application and the proposed road development application*
- *Make submissions in relation to the most recent Climate Action Plan and the implications of the new Galway City Development Plan*
- *Update the Environmental Impact Assessment Report*
- *Update the appropriate assessment screening document and the Natura Impact Statement including updated site conversation objectives*

This updated EIAR has been prepared in response to item 3 in the above request for further information and is as defined in the EPA 2022 guidelines “a report of the effects, if any, which the proposed project, if carried out, would have on the environment and shall include the information specified in Annex IV of the Environmental Impact Assessment Directive”. The updated EIAR also details the consideration of the reasonable alternatives, consideration and assessment of likely significant effects, mitigation and avoidance measures to reduce significant adverse effects, an assessment of residual effects and a cumulative impact assessment of the Project with existing and approved projects as well as where appropriate planned and committed plans and projects.

The full complement of material submitted to ABP in response to the above request is entitled the **2025 RFI Response**. This is split into seven parts as follows:

- Part I – 2025 RFI Response Report (see description below)
- Part II – Updated N6 Galway City Ring Road Motorway Scheme 2018
- Part III – Updated N6 Galway City Ring Road Protected Road Scheme 2018
- Part IV – Obligations under Section 15 of the Climate Action and Low Carbon Development Act 2015 (as amended) and submissions in relation to the Climate Action Plan 2024
- Part V – Implications of new Galway City Development Plan
- Part VI – This Updated Environmental Impact Assessment Report
- Part VII – Updated Provision of Information for Appropriate Assessment Screening Report and Natura Impact Statement

To aid the understanding of the changes and implications of the changes in this updated EIAR, the first part, i.e. Part I, in the suite of documents in this 2025 RFI Response is a report entitled **2025 RFI Response Report**, and it includes, but is not limited to, an overview of the changes presented in this updated EIAR. Each subsequent chapter of this updated EIAR explains where and why changes have been made.

⁵ <https://www.n6galwaycityringroad.ie/sites/default/files/media/Order%20-%20Friends%20of%20the%20Irish%20Environment%20JR.pdf>

⁶ It is noted that the reference numbers for the application in 2018, ABP-302848 and ABP-302885 has since been updated by ABP to HA07.318220 and MA07.318217 respectively

This chapter which is an update to Chapter 1 of the EIAR:

- defines the proposed N6 GCRR, the subject of the Section 51 Application
- defines Project which as explained below is what is assessed for EIA and AA purposes
- sets out the modifications made to the proposed N6 GCRR since the 2018 EIAR
- summarises the EIA Screening and non-statutory Scoping undertaken
- Sets out the contents of the updated EIAR including details of the competent experts involved in preparing the updated EIAR
- outlines the background to the proposed N6 GCRR
- describes the methodology used to prepare this updated EIAR
- sets out the consultation process that has been carried out to date

1.1.1 Overview of Proposed N6 GCRR and Definition of the Project for EIA and AA Purposes

The proposed N6 GCRR, the subject of the Section 51 Application, comprises the construction of approximately 5.6km of a single carriageway from the western side of Bearna as far as the Ballymoneen Road and approximately 11.9km of dual carriageway from Ballymoneen Road to the eastern tie in with the existing N6 at Coolagh, Briarhill, and associated link roads, side roads, junctions, structures and localised works to the existing electricity transmission and distribution networks (specifically comprising of the diversion of the 110kV and 38kV services) as shown on Figures 5.1.01 to 5.1.15 in Volume 3 of this update EIAR. The section of the proposed N6 GCRR from the tie-in with the R336 Coast Road to the N59 Letteragh Junction is a protected road⁷ and the section from this junction to the tie-in with the existing N6 at Coolagh, Briarhill is a motorway.

To ensure the functionality of Galway Racecourse during the construction and operation of the proposed N6 GCRR, the construction of both temporary and permanent stables (and associated development) is essential at the racecourse. In this regard, Galway Race Committee Trust applied for planning permission for these temporary and permanent stables and associated development, which was granted permission by Galway City Council on 2 December 2024.

The demolition of the existing stables at the racecourse will occur as part of the construction of the proposed N6 GCRR. As set out in the application for planning permission by Galway Race Committee Trust to Galway City Council (Reference 24/60279) and as set out in the grant of permission, it will only be implemented if the proposed N6 GCRR is granted approval by An Bord Pleanála and is proceeding. Equally, the permanent stables cannot be constructed until post completion of construction and handover of the operational N6 GCRR. This has resulted in the requirement for temporary stables for the continued operation of the racecourse during the demolition of the existing stables and the commissioning of the new permanent replacement stables. These temporary stables are therefore required to be fully operational before the demolition of the existing stables commences. Therefore, while the proposed N6 GCRR, the subject of the Section 51 Application is separate to that of the proposed development at Galway Racecourse, it is also interconnected and interlocked with it.

Therefore, it is necessary for Environmental Impact Assessment (EIA) and Appropriate Assessment (AA) purposes to assess the combination of both the proposed N6 GCRR and the proposed development at Galway Racecourse, which for EIA and AA purposes is referred to as the “Project” and has been considered and assessed in this updated EIAR and in the updated AA Screening Report and updated NIS. Therefore, the term Project, when used throughout this updated EIAR, refers to combination of the proposed N6 GCRR and the proposed development at Galway Racecourse.

⁷ A protected road means a public road or proposed public road specified to be a protected road in a protected road scheme approved by the An Bord Pleanála. A protected road scheme approved by An Bord Pleanála may provide for the prohibition, closure, stopping up, removal, alteration, diversion or restriction of any specified or all means of direct access to the protected road from specified land or from specified land used for a specified purpose or to such land from the protected road.

The term Assessment Boundary, when used throughout this updated EIAR refers to lands required for the construction and/or operation of the proposed N6 GCRR plus the extents of the lands included within the planning boundary for the proposed development at Galway Racecourse.

A full description of the proposed N6 GCRR and the Project (of which the proposed N6 GCRR forms a critical part) for the purposes of EIA and AA, is provided in Chapter 5, Project Description. A location plan for the proposed N6 GCRR is presented in Figure 1.1.

The modifications/changes that have been made since the 2018 EIAR are set out in this updated chapter in Section 1.1.3.

1.1.2 The Galway Transport Strategy and the Proposed N6 GCRR

The proposed N6 GCRR forms part of, and is identified as a project within the ‘Galway Transport Strategy’ (GTS). The GTS was prepared by Galway City Council and GCC, in partnership with the National Transport Authority (NTA). The GTS is based on a comprehensive assessment of transport issues facing Galway City and the wider environs and the need to develop a sustainable integrated transport solution to accommodate existing and future travel demand thereby facilitating Galway growing “*in an integrated, sustainable manner that aligns transport investment with settlement patterns, travel movements and also supports a sustainable use of land*” (Galway City Council Development Plan 2017-2023). Whilst there has been significant legislative changes which have guided the new Galway City Council Development Plan, this is reflected in the new Plan below:

The Galway City Development Plan 2023-2029 reinforces that the GTS “*is the transport plan that aims to establish a more sustainable approach to address current and future transport requirements and underpin the future growth of the city. The policy approach in this plan supports the measures in the GTS and includes for the strengthening of links between land use and transportation planning. It also focuses on reducing car dependency and supports a transition towards increased use of more sustainable active modes and public transport. This will require investment in walking and cycling, an improved and more accessible public transport system supported by low emission infrastructure, to address transport challenges in the city and accord with national, regional and local policies. Enhanced walking and cycling facilities will be promoted through greater permeability and increased networks, making these travel modes more attractive, accessible, safe, and healthier travel options. A transition to use of these active modes and public transport will also have significant potential to improve air quality, the urban environment, the economic performance of the city and the overall quality of life in the city.*”

The Galway City Development Plan 2023-2029 also notes that “*Investment projects over the lifetime of the plan are in line with good planning principles and aligned with the settlement and development strategy for the city.*”

The GTS is currently being implemented by Galway City Council, both in terms of the policy objectives established and the delivery of transport projects identified within the strategy. Further details on the GTS are available on Galway City Council’s website at the link below:

<https://www.galwaycity.ie/galway-transport-strategy>

1.1.3 Modifications to the proposed N6 GCRR since 2018

Further to the submission of the Section 51 Application in 2018 and the subsequent response to the Request for Further Information in 2019, certain modifications and their associated environmental assessments were presented on the proposed N6 GCRR at the commencement of the oral hearing before An Bord Pleanála in February 2020 namely:

- Changes to the mitigation proposed for University of Galway (formerly NUIG) Sporting Campus
- Alternative alignment for the southern portion of the Parkmore Link Road through Boston Scientific campus

Further modifications to the proposed N6 GCRR were proposed during the oral hearing and were presented on a series of drawings which were included in the Schedule of Commitments on 4 November 2020⁸. This suite of drawings was originally included in Appendix A.9.1 of the 2019 RFI and they were updated during the oral hearing. The final version of these drawings is shown as Figures 5.6.01 to 5.6.30 in Volume 3 of this updated EIAR. The changes agreed during the oral hearing are as follows:

- Additional access to severed lands for property 106 proposed from Access Road AR 0/02 as shown on Figure 5.6.01 in Volume 3 of this updated EIAR
- Access Road AR 1/01 was amended to facilitate access to properties 131 and 7891 as agreed with these property owners and shown on Figure 5.6.02 in Volume 3 of this updated EIAR
- Access Road AR 7/04 was extended further west to provide access to lands severed by a stream which is shown on Figure 5.6.10 in Volume 3 of this updated EIAR
- Connection between Access Road 13/06 and the N83 Tuam Road for pedestrians which is shown on Figure 5.6.18 in Volume 3 of this updated EIAR
- Changes to land ownership boundary details and/or property extents which are reflected in proposed modifications to the Motorway Scheme and Protected Road Scheme and Figures 5.6.01 to 5.6.30 in Volume 3 of this updated EIAR
- Some permanent land acquisition was changed to temporary acquisition which is reflected in proposed modifications to the Motorway Scheme and Protected Road Scheme and Figures 5.6.01 to 5.6.30 in Volume 3 of this updated EIAR
- Some land proposed to be acquired was removed which is reflected in proposed modifications to the Motorway Scheme (Part II) and Protected Road Scheme (Part III) of this 2025 RFI Response
- Additional cycle paths and footpaths were added at Gort na Bró as set out in Drawing GCRR-SK-OH-054 in the Schedule of Commitments on 4 November 2020⁸. This is reflected in the updated series of drawings showing the Pedestrian and Cycle Facilities in Figures 5.7.12 to 5.7.13 of Volume 3 of this updated EIAR. These were originally included in Appendix A.1.13 of the 2019 RFI

A further modification was made post oral hearing based on the decision of ABP Board Order ABP-302885-18:

- Access Road AR 13/02 amended to minimise impacts on landowner while providing access to adjoining landowner as shown in Figure 5.6.17 in Volume 3 of this updated EIAR. (Refer to Chapter 5 of this updated EIAR for further details)

Another further modification was made as a result of the grant of approval by ABP for a development, Glenveagh Large-scale residential development (LRD), at Gort na Bró, Knocknacarra, noting that the approval has subsequently been challenged in judicial review proceedings. This modification includes a bus bay on the southern side of the access road AR 06/04 into Galway Retail Park to align with the proposed bus bay in the LRD development, and all is possible within the proposed land acquisition within the N6 Galway City Ring Road Protected Road Scheme 2018:

- Access Road AR 06/04 amended to add a bus bay to reflect the design of the Knocknacarra District Centre Large-scale Residential Development (LRD) which obtained approval from ABP reference ABP-318687-23. This is shown on Figure 5.7.13 in Volume 3 of this EIAR

Further, the decision of An Bord Pleanála on the Section 51 Application for the proposed N6 GCRR on 6 December 2021, reference ABP-302848-18, conditioned the omission of the permanent stables at Galway Racecourse. Arising from that, Galway Race Committee Trust has as discussed earlier above, in order to mitigate the significant impacts of the proposed N6 GCRR on the operation of the racecourse and to ensure the continued operation of the racecourse, separately sought planning permission for replacement temporary

⁸ https://www.n6galwaycityringroad.ie/sites/default/files/media/GCRR-4.04-019_002%20Chapter%202021%20SoC_I2_Final%2004112020.pdf

and permanent stables, and associated development, and that application (Reference 24/60279) was granted approval by Galway City Council on 2 December 2024.

Galway Race Committee Trust in its application confirmed that that separate planning application will only be implemented if the development of the proposed N6 GCRR obtains approval and is proceeding and this is reflected in the conditions attached to the grant of planning permission by Galway City Council. The N6 Galway City Ring Road Motorway Scheme 2018 is modified as directed by the ABP Board Order ABP-302885-18 to account for the omission of the permanent stables.

Furthermore, the N6 Galway City Ring Road Motorway Scheme 2018 is modified as directed by the ABP Board Order ABP-302885-18 as follows:

- (v) Plot Number 713a.203 shall be subject to temporary acquisition.*
- (vi) Plot Number 713a.204, Plot Number 713a.101 and Plot Number 713b.101 shall be subject to temporary acquisition to a depth of 1.5 metres below ground level and subject to permanent acquisition to a depth beyond 1.5 metres below ground level.*

Some lands are swapped from permanent to temporary landtake in the N6 Galway City Ring Road Protected Road Scheme 2018 as directed by the ABP Board Order ABP-302885-18 as follows:

- (ii) Plot number 195a.202 shall be subject to permanent acquisition save for the portion accommodating the final regraded entrance to the existing dwelling which shall be subject to temporary acquisition.*
- (iii) Plot number 246a.203 shall be subject to permanent acquisition save for the portion accommodating the piped outfall which shall be subject to temporary acquisition with an associated wayleave agreement in favour of the Road Authority.*

All these modifications are reflected in the updated documents submitted to An Bord Pleanála in the response to the request for further information and have been taken into account in the assessment of the Project in this updated EIAR and in the updated NIS and Galway County Council is applying to An Bord Pleanála to make these minor modifications when granting approval for the N6 Galway City Ring Road.

Where guidelines and standards have been updated, or new ones have been published are of relevance to the Section 51 Application the design has been reviewed to ensure it is compliant with current standards. The design is compliant, subject to a minor change to the single carriageway, and no additional lands or changes to the vertical alignment are required to deliver a compliant design. All current guidelines and standards have been taken into account in the assessment of the Project in this updated EIAR. Where there have been changes to the assessment and / or updates since the 2018 EIAR, these have been set out.

1.2 EIA Screening & Scoping and EIAR Contents & Methodology

1.2.1 Statutory Requirements

This updated EIAR has been prepared in accordance with the relevant provisions of Directive 2011/92/EU⁹ on the Assessment of the Effects of Certain Public and Private Projects on the Environment as amended by Directive 2014/52/EU¹⁰. Directive 2014/52/EU amends EIA law in a number of respects by amending Directive 2011/92/EU.

Article 5 and Annex IV to the EIA Directive 2011/52/EU, (as substituted by Directive 2014/52/EU) and Sections 50(2) and 50(3) of the Roads Act 1993, as amended, specify the information to be contained in an EIAR in relation to this Project.

⁹ Directive 2011/92/EU of the European Parliament and of the Council of 13 December 2011 on the assessment of the effects of certain public and private projects on the environment (codification).

¹⁰ Directive 2014/52/EU of the European Parliament and of the Council of 16 April 2014 amending Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment.

This updated EIAR contains all of the information prescribed by the relevant provisions of the Roads Act, 1993 as amended, the Roads Regulations, 1994 as amended, Article 5 and Annex IV of Directive 2011/92/EU as amended.

1.2.2 EIA Screening

The proposed N6 GCRR exceeded the thresholds set for mandatory Environmental Impact Assessment as specified in Irish legislation. The relevant legislation includes the Roads Act, 1993, as amended and the Roads Regulations, 1994, as amended.

Section 50 (1) (a) of Roads Act, 1993, as amended states the following:

“50(1) (a) A road development that is proposed that comprises any of the following shall be subject to an environmental impact assessment:

- (i) the construction of a motorway;*
- (ii) the construction of a busway;*
- (iii) the construction of a service area;*
- (iv) any prescribed type of road development consisting of the construction of a proposed public road or the improvement of an existing public road”.*

Article 8 of the Roads Regulations, 1994 (*Road development prescribed for the purposes of S. 50(1) (a) of the Roads Act, 1993*) lists the prescribed types of proposed road development which require an EIS (EIAR) as follows:

“8. The prescribed types of proposed road development for the purpose of subsection (1) (a) (iii) of section 50 of the Act shall be—

- (a) the construction of a new road of four or more lanes, or the realignment or widening of an existing road so as to provide four or more lanes, where such new, realigned or widened road would be eight kilometres or more in length in a rural area, or 500 metres or more in length in an urban area;*
- (b) the construction of a new bridge or tunnel which would be 100 metres or more in length”*

The proposed N6 GCRR will include approximately 11.9km of dual carriageway and will include a bridge and a viaduct plus two tunnels each of which will be more than 100 metres in length. In addition, the section of the proposed N6 GCRR from the N59 Letteragh Junction to the tie-in with the existing N6 at Coolagh, Briarhill will be a motorway. Accordingly, the Roads Authority was required back in 2018 to prepare an EIAR which it did, and this is an update to that 2018 EIAR.

Section 2 of the Planning and Development Act 2000, as amended, as inserted by Section 6(c) of the Planning and Development (Strategic Infrastructure) Act, 2006, as amended, defines strategic infrastructure to include all national road development proposals for which an EIAR is required. Therefore, all such strategic infrastructure development is dealt with by the Strategic Infrastructure Division of An Bord Pleanála.

1.2.3 Contents of this updated EIAR

This updated EIAR has been prepared in accordance with the relevant provisions of Directives 2011/92/EU Assessment of the Effects of Certain Public and Private Projects on the Environment as amended by Directive 2014/52/EU and in accordance with the relevant provisions of the Roads Act, 1993, as amended, the Roads Regulation 1993 as amended, Article 5 and Annex IV of Directive 2011/92/EU, as amended.

Article 5 and Annex IV to the EIA Directive 2011/52/EU, (as substituted by Directive 2014/52/EU)¹¹, and Sections 50(2) and 50(3) of the Roads Act 1993, as amended, specify the information to be contained in an EIAR in relation to this Project.

¹¹ Annex IV of Directive 2011/92/EU has been replaced in Directive 2014/52/EU

For clarity on the information to be contained in this updated EIAR, the relevant sections of the legislation are reproduced below.

Annex IV of the EIA Directive, as amended, specifies the information to be contained in an EIAR and is reproduced in Table 1.1 below. The information provided in this updated EIAR meets the requirements for Article 5 and Annex IV to the EIA Directive, as amended.

Table 1.1 Annex IV of EIA Directive as amended by Directive 2014/52/EU¹²

ANNEX IV - INFORMATION REFERRED TO IN ARTICLE 5(1) (INFORMATION FOR THE ENVIRONMENTAL IMPACT ASSESSMENT REPORT)
<p>1. A description of the project, including in particular:</p> <ul style="list-style-type: none"> (a) a description of the location of the project; (b) a description of the physical characteristics of the whole project, including, where relevant, requisite demolition works, and the land-use requirements during the construction and operational phases; (c) a description of the main characteristics of the operational phase of the project (in particular any production process), for instance, energy demand and energy used, nature and quantity of the materials and natural resources (including water, land soil and biodiversity) used; (d) an estimate, by type and quantity, of expected residues and emissions (such as water, air, soil and subsoil pollution, noise, vibration, light, heat, radiation) and quantities and types of waste producing during the construction and operation phases.
<p>2. A description of the reasonable alternatives (for example in terms of project design, technology, location, size and scale) studied by the developer, which are relevant to the proposed project and its specific characteristics, and an indication of the main reasons for selecting the chosen option, including a comparison of environmental effects.</p>
<p>3. A description of the relevant aspects of the current state of the environment (baseline scenario) and an outline of the likely evolution thereof without implementation of the project as far as natural changes from the baseline scenario can be assessed with reasonable effort on the basis of the availability of environmental information and scientific knowledge.</p>
<p>4. A description of the factors specified in Article 3(1) likely to be significantly affected by the proposed project: population, human health, biodiversity, (for example, fauna and flora), land (for example, land take) soil (for example organic matter, erosion, compaction, sealing) water (for example hydromorphological changes, quantity and quality) air, climatic (for example greenhouse gas emissions, impacts relevant to adaption) material assets, cultural heritage, including architectural and archaeological aspects, and landscape.</p>
<p>5. A description of the likely significant effects of the project on the environment resulting from, inter alia:</p> <ul style="list-style-type: none"> a. the construction and existence of the project, including, where relevant, demolition works. b. (the use of natural resources, in particular land, soil, water and biodiversity, considering as far as possible the sustainable availability of these resources. c. the emission of pollutants, noise, vibration, light, heat and radiation, the creation of nuisances and the disposal and recovery of waste. d. the risks to human health, cultural heritage or the environment (for example due to accidents or disasters); e. the cumulation of effects with other existing and/or approved projects, taking into account any existing environmental problems relating to areas of particular environmental importance likely to be affected or the use of natural resources; f. the impact of the project on climate (for example the nature and magnitude of greenhouse gas emissions) and the vulnerability of the project to climate change. g. the technologies and the substances used. <p>The description of the likely significant effects on the factors specified in Article 3(1) should cover the direct effects and any indirect, secondary, cumulative, transboundary, short-term, medium-term and long-term, permanent and temporary, positive and negative effects of the project. This description should take into account the environmental protection objectives established at Union or Member State level which are relevant to the project.</p>
<p>6. A description of the forecasting methods or evidence, used to identify and assess the significant effects on the environment, including details of difficulties (for example technical deficiencies or lack of knowledge) encountered compiling the required information and the main uncertainties involved.</p>
<p>7. A description of the measures envisaged to prevent, reduce or if possible, offset any identified significant adverse effects on the environment and, where appropriate, of any proposed monitoring arrangements (for example the preparation of a post-project analysis). That description should explain the extent, to which significant adverse effects on the environment are avoided, prevented, reduced or offset, and should cover both the construction and operational phases.</p>

¹² <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014L0052>

ANNEX IV - INFORMATION REFERRED TO IN ARTICLE 5(1) (INFORMATION FOR THE ENVIRONMENTAL IMPACT ASSESSMENT REPORT)

8. A description of the expected significant adverse effects of the project on the environment deriving from the vulnerability of the project to risks of major accidents and/or disasters which are relevant to the project concerned. Relevant information available and obtained through risk assessments pursuant to Union legislation such as Directive 2012/18/EU of the European Parliament and of the Council (*) or Council Directive 2009/71/Euratom (**) or relevant assessments carried out pursuant to national legislation may be used for this purpose provided that the requirements of this Directive are met. Where appropriate, this description should include measures envisaged to prevent or mitigate the significant adverse effects of such events on the environment and details of the preparedness for and proposed response to such emergencies.
9. A non-technical summary of the information provided under headings 1 to 8.
10. A reference list detailing the sources used for the descriptions and assessments included in the report.

Sections 50(2) and 50(3) of the Roads Act 1993, as amended, specify the information to be contained in an EIS now referred to as an EIAR. Sections 50(2) and 50(3) of the Roads Act 1993, as amended, are reproduced in Table 1.2 below. The information provided in this updated EIAR meets the requirements of Sections 50(2) and 50(3) of the Roads Act 1993, as amended.

Table 1.2 Sections 50 (1B), 50(2) and 50(3) of the Roads Act 1993, as amended¹³

SECTIONS 50(2) AND 50(3) OF THE ROADS ACT, 1993, AS AMENDED
<p>“50 (1B) A road authority or, as the case may be the Authority, shall prepare an environmental impact assessment report in respect of any road development that it proposes that is subject to an environmental impact assessment under this section.</p> <p>(2) The road authority or the Authority, as the case may be, shall ensure that an environmental impact assessment report referred to in subsection (1B)—</p> <p>(a) is prepared by competent experts,</p> <p>(b) subject to subsection (3), contains the following information:</p> <p>(i) a description of the proposed road development comprising information on the site, design, size and other relevant features of the development;</p> <p>(ii) a description of the likely significant effects of the proposed road development on the environment;</p> <p>(iii) a description of any features of the proposed road development and of any measures envisaged in order to avoid, prevent or reduce and, if possible, offset likely significant adverse effects on the environment;</p> <p>(iv) a description of the reasonable alternatives studied by the road authority or the Authority, as the case may be, which are relevant to the proposed road development and its specific characteristics, and an indication of the main reasons for the option chosen, taking into account the effects of the proposed road development on the environment;</p> <p>(v) a non-technical summary of the information referred to in subparagraphs (i) to (iv);</p> <p>(vi) any additional information specified in Annex IV that is relevant to the specific characteristics of the particular proposed road development or type of proposed road development and to the environmental features likely to be affected,</p> <p>and</p> <p>(c) takes into account the available results of other relevant assessments carried out pursuant to any Act of the Oireachtas or under European Union legislation with a view to avoiding duplication of assessments.</p>
<p>50(3) Where An Bord Pleanála issues an opinion under subsection (4) the road authority or the Authority, as the case may be, shall—</p> <p>(a) prepare the environmental impact assessment report referred to in subsection (1B) based on that opinion, and</p> <p>(b) include in the report the information that may reasonably be required for reaching a reasoned conclusion on the significant effects of the proposed road development on the environment, taking into account current knowledge and methods of assessment.</p>

1.2.4 Structure of this updated EIAR

This updated EIAR has been prepared by Arup comprising their team of in-house competent experts and external competent experts on behalf of TII, Galway County Council and Galway City Council. Refer to the List of Contributors for further details on the competent experts. Input has also been provided to the updated EIAR, where necessary from TII, Galway County Council and Galway City Council.

The updated EIAR comprises four volumes of which this is the second. The four are as follows:

¹³ <https://revisedacts.lawreform.ie/eli/1993/act/14/section/50/revised/en/html>

- Volume 1 – Non-Technical Summary
- Volume 2 – Environmental Impact Assessment Report (Main Text)
- Volume 3 – Figures
- Volume 4 – Appendices

The main text of the updated EIAR has been further divided into the following chapters:

- Chapter 1 – *Introduction*
- Chapter 2 – *Planning and Policy Context*
- Chapter 3 – *Need for the Project*
- Chapter 4 – *Alternatives Considered*
- Chapter 5 – *Project Description*
- Chapter 6 – *Traffic Assessment and Route Cross-Section*
- Chapter 7 – *Construction Activities*
- Chapter 8 – *Biodiversity*
- Chapter 9 – *Soils and Geology*
- Chapter 10 – *Hydrogeology*
- Chapter 11 – *Hydrology*
- Chapter 12 – *Landscape and Visual*
- Chapter 13 – *Cultural Heritage (referred to as Archaeology, Architectural and Cultural Heritage in the 2018 EIAR)*
- Chapter 14 – *Material Assets Agriculture*
- Chapter 15 – *Material Assets Non-Agriculture*
- Chapter 16 – *Air Quality*
- *Chapter 17 – Climate (this is now a separate chapter where as in the 2018 EIAR it was part of Chapter 16 with Air Quality)*
- Chapter 18 – *Noise and Vibration*
- Chapter 19 – *Population and Human Health (referred to as Human Beings, Population and Human Health in the 2018 EIAR)*
- *Chapter 20 – Waste and Resource Management (this is now a separate chapter where as in the 2018 EIAR it was included as part of Chapter 7 Construction Activities)*
- Chapter 21 – *Major Accidents, Inter-relationships, Interactions and Cumulative Impacts*
- Chapter 22 – *Summary of Mitigation Measures and Residual Effects and*
- Chapter 23 – *Schedule of Environmental Commitments*

The format which has been used in this updated EIAR is the grouped format, in which each topic is addressed in a separate section. This is designed to allow readers to access the issues of interest to them as easily as possible. However, there is an overlap of some topics. For example, effects on human beings are addressed in a number of chapters including Chapter 12, Landscape & Visual, Chapter 15, Material Assets Non-Agriculture, Chapter 16, Air Quality, Chapter 17 Climate, and Chapter 18, Noise and Vibration, as well as Chapter 19, Human Beings, Population and Human Health. Effects on land are addressed in a number of

chapters including: Chapter 14, Material Assets Agriculture, Chapter 15, Material Assets Non-Agriculture, Chapter 12, Landscape & Visual, as well as Chapter 19, Human Beings, Population and Human Health. It should be noted that the term effects and impacts are used interchangeably in this updated EIAR to mean the same thing.

Significant effects on environmental topics arising from the vulnerability of the Project to risks of major accidents and/or disasters are addressed in Chapter 21, Major Accidents, Inter-Relationships, Interactions and Cumulative Impacts.

Interactions between environmental issues will be described in Chapter 21, Major Accidents, Inter-Relationships, Interactions and Cumulative Impacts. Alternatives considered and a description of the Project are presented in Chapters 4, and 5 respectively.

As noted in Section 1.1.1, the proposed N6 GCRR forms part of, and is identified as a project within the ‘Galway Transport Strategy’ (GTS). However, the implementation of the proposed N6 GCRR is not reliant on the delivery of other components of the GTS. It is a stand-alone development. Therefore, the EIA process for the Project is a stand-alone process. However, on the other hand the optimal implementation of the full GTS is reliant on the delivery of the proposed N6 GCRR to enable Galway City and its environs to grow in a sustainable manner in accordance with the National Planning Framework. Although many elements of the GTS can be implemented independently from the delivery of the proposed N6 GCRR, the full extent of measures and the success of the GTS needs the provision of this new orbital route which is also an identified strategic addition to the EU TEN-T Comprehensive Network.

A Natura Impact Statement (NIS) was submitted with the Section 51 Application to An Bord Pleanála for approval in 2018 so as to inform the Appropriate Assessment process and to assist An Bord Pleanála in carrying out an Appropriate Assessment required. An updated NIS of the Project is included in Part VII of the 2025 RFI Response.

1.2.5 Details of Competent Experts

This updated EIAR has been compiled by Arup on behalf of TII, Galway County Council and Galway City Council with assessment and reporting provided by competent experts for each individual topic. The main author and details of the expertise of each competent expert are provided below in Table 1.3.

Table 1.3 Details of Competent Experts-Qualifications, Experience and Other Relevant Competencies

Topic	Main Author – Competency Details
Chapter 1 Introduction	<p>Eileen McCarthy BE (Hons) MIEI CEng, MICE CEng, PE (USA), Arup</p> <p>Eileen McCarthy is a Director with Arup. She holds an honours degree in Civil Engineering from University College Cork and is a Chartered member of the Institute of Civil Engineers in London, a Chartered Member of Engineers Ireland and a licensed professional engineer in USA.</p> <p>Eileen has 35 years’ relevant experience and in particular, managed the planning and design for various road schemes including M7 Osberstown Interchange and R407 Sallins Bypass Scheme, M20 Cork – Limerick Motorway Scheme, M7/N24 Ballysimon Road Improvement Scheme, N22 Baile Bhuirne to Macroom Scheme and the Naas Southern Ring Road in Kildare.</p> <p>She has been directly responsible for the project management and delivery of the N6 Galway City Ring Road since commencement of work on this application to An Bórd Pleanála in December 2013 and has been assisted as required by members of the design team in compiling this updated EIAR.</p> <p>Mary Hurley BE (Hons) MIEI CEng, Arup</p> <p>Mary Hurley is an Associate Director with Arup. Mary qualified with a first-class honour’s degree in Civil and Environmental Engineering from UCC in 2002. She is a Chartered Engineer with Engineers Ireland and has over 22 years professional experience with the last 18 years spent working in the area of planning for large infrastructure projects including M20 Cork to Limerick Motorway Scheme and M7 Osberstown Interchange and R407 Sallins Bypass.</p> <p>She has been directly responsible for the management and delivery of the environmental assessment of the N6 Galway City Ring Road since commencement of work on this application to An Bórd Pleanála in December 2013 and has been assisted as required by members of the design team in compiling this updated EIAR.</p> <p>Eileen McCarthy and Mary Hurley supervised the preparation of Chapter 1 of the update EIAR.</p>
Chapter 2 Planning and Policy Context	<p>John O’Malley BA BAI MRUP MIPI MRTPI Kieran O’Malley and Company Limited – Planning</p> <p>John O’Malley is a Chartered Town Planner with more than 27 years’ professional experience in planning in Ireland. John is a Director at Kieran O’Malley and Company Limited and a member of the Irish Planning Institute and the Royal Town Planning Institute. John has an undergraduate degree in Civil Engineering from Trinity College Dublin and a Masters in Regional and Urban Planning (MRUP) from University College Dublin.</p> <p>John has worked on urban planning strategies, development plans and local area plans, strategic infrastructure projects, feasibility studies, compensation claims, industrial development projects and arbitrations on behalf of Government departments and agencies, Local Authorities, State bodies and State companies, including Bord Gáis Éireann, ESB, Bord Na Móna and the private sector. John has given sworn evidence as an expert witness on planning matters before the Property Arbitrator and in the courts.</p> <p>John O’Malley prepared Chapter 2 of the update EIAR with assistance from Eileen McCarthy Arup.</p>
Chapter 3 Need for the Proposed Road Development	<p>Eileen McCarthy BE (Hons) MIEI CEng, MICE CEng, PE (USA), Arup</p> <p>See above</p> <p>Eileen McCarthy supervised the preparation of Chapter 3 of the update EIAR.</p>

Topic	Main Author – Competency Details
Chapter 4 Alternatives Considered	<p>Eileen McCarthy BE (Hons) MIEI CEng, MICE CEng, PE (USA), Arup and Mary Hurley BE (Hons) MIEI CEng, Arup</p> <p>See above</p> <p>Eileen McCarthy and Mary Hurley supervised the preparation of Chapter 4 of the update EIAR.</p>
Chapter 5 Description of Proposed Road Development	<p>Eileen McCarthy BE (Hons) MIEI CEng, MICE CEng, PE (USA), Arup and Mary Hurley BE (Hons) MIEI CEng, Arup</p> <p>See above</p> <p>Eileen McCarthy and Mary Hurley supervised the preparation of Chapter 5 of the update EIAR.</p>
Chapter 6 Traffic Assessment and Route Cross Section	<p>Andrew Archer, Systra - Traffic</p> <p>Andrew Archer is a Chartered Engineer and Project Director for Systra’s operation in Ireland, with over 22 years of diverse and challenging experience in a wide range of transportation planning, policy and engineering projects. Through his work in Europe and the Middle East, Andrew has played a major role in strategic planning and innovative design on a number of key public and private sector transportation projects including land use and transportation studies, development masterplans, transport framework plans, highway scheme appraisal, and conceptual designs of transport infrastructure schemes. Andrew’s particular expertise lies in working with clients and stakeholders in a collaborative manner to develop practical and implementable strategies for large scale towns, urban regeneration projects or individual developments.</p> <p>Andrew has also managed and delivered a range of multi-modal transport studies across Ireland, including integrated land use and transportation framework plans, local area plans, traffic management strategies, road safety designs, school traffic management strategies and parking management schemes.</p> <p>Peter Gannon is a transport planning consultant within Systra’s operation in Ireland, with over 10 years’ experience working across a range of transport planning and major infrastructure schemes, both in Ireland and the UK. Peter has supported transport strategies, Local Area Plans, Transport Assessments and the appraisal of several large infrastructure projects. His experience includes Galway BusConnects – Dublin Road, Mallow Relief Road, N3 Virginia Bypass, N55 Athlone to Ballymahon, Birmingham Westside Metro Extension and the Manchester Trafford Park Metro Extension.</p> <p>Andrew Archer prepared Chapter 6 of the updated EIAR with assistance from Peter Gannon.</p>
Chapter 7 Construction Activities	<p>Eileen McCarthy BE (Hons) MIEI CEng, MICE CEng, PE (USA), Arup and Mary Hurley BE (Hons) MIEI CEng, Arup - General Construction Activities</p> <p>See above</p> <p>Eileen McCarthy and Mary Hurley supervised the preparation of Chapter 7 of this update EIAR.</p>

Topic	Main Author – Competency Details
Chapter 8 Biodiversity	<p>Aebh�n Cawley CEnv MCIEEM, Scott Cawley - Biodiversity</p> <p>Aebh�n Cawley is the CEO of Scott Cawley Ltd. She holds a degree in Zoology from the University of Dublin (Trinity College) and also holds a postgraduate diploma in Physical Planning from the same university. She is a Chartered Environmentalist (CEnv) with the Society for the Environment (Soc Env) and a full member of the Chartered Institute of Ecology and Environmental Management (CIEEM). Aebh�n has over 20 years’ professional experience as an ecological consultant, in ecological surveying and impact assessment for public and private sector projects including road, rail and other major infrastructural projects. Aebh�n Cawley has extensive experience in Appropriate Assessment (AA) and has in the provision of technical review and advisory services in relation to AA and Ecological Impact Assessment (EcIA). Aebh�n has been assisting public and private sector clients in Habitats Directive compliance since 2002. She provides training in Appropriate Assessment and biodiversity to public and private sector organisations and has lectured to a range of professional institutes and public sector organizations. She has acted as lead expert witness for biodiversity in multiple oral hearings for large infrastructure projects and has advised clients in multiple judicial review cases. Aebh�n was the project director for the Biodiversity chapter of the EIAR and the NIS with overall responsibility for the delivery of those reports as well as for high-level input to the survey methodologies, assessment of impacts and development of the mitigation strategy. Aebh�n also undertook specific elements of the field survey work.</p> <p>Andrew Speer MCIEEM, Scott Cawley - Biodiversity</p> <p>Andrew Speer is Chief Technical Officer at Scott Cawley Ltd. Andrew has 18 years’ professional ecological consultancy experience in preparing Ecological Impact Assessments (EcIAs), Biodiversity chapters of Environmental Impact Assessment Reports (EIARs), Appropriate Assessment Screening reports (AA Scr), Natura Impact Statements/Reports (NISs/NIRs), and protected species derogation licence applications for a diverse range and complexity of projects and strategic development/land use plans.</p> <p>Andrew’s has extensive experience in designing, undertaking, managing and delivering large scale complex ecological field survey programmes, and in assessing impacts and designing/implementing mitigation measures, for large infrastructure projects; covering protected terrestrial fauna (e.g. bats, badgers, amphibians, reptiles and invertebrates), breeding and wintering birds, protected aquatic species (e.g. white-clawed crayfish, freshwater pearl mussel, otter and lamprey) and habitats.</p> <p>A significant proportion of Andrew’s experience relates to transport infrastructure projects, across all project phases (from feasibility, constraints and options selection, through design, evaluation and statutory process, to construction and implementation) including acting as Ecological Clerk of Works overseeing and implementing ecological mitigation measures, including acquiring protected species derogation licences.</p> <p>Andrew provides EcIA/AA peer and technical review and advisory services to public and private sector clients, has acted as expert biodiversity witness for national roads projects at oral hearing, and has experience of and provided input into judicial review and EPA licence appeal processes and defences. He also has experience developing and delivering biodiversity and impact assessment related training to the public and private sectors and has recently been involved in projects developing Biodiversity No-Net-Loss/Net Gain solutions for both public and private sector projects.</p> <p>Aebh�n Cawley and Andrew Speer were responsible for the preparation of Chapter 8 of the updated EIAR, NIS and Appropriate Assessment screening documents.</p>
Chapter 9 Soils and Geology	<p>Cathal Mac an tSearraigh BE (Ord), BE (Hons), CEng, Arup – Soils and Geology</p> <p>Cathal Mac an tSearraigh is a Chartered Senior Civil Engineer, with over 10 years' experience within the Ground Engineering Team in Arup Ireland. Cathal has gained experience across of range of sectors including infrastructure, buildings and natural hazards, developing expertise on projects in Ireland, mainland Europe and Asia.</p> <p>Marie Fleming BSc MSc PGcert GIS DIC, Arup – Soils and Geology</p>

Topic	Main Author – Competency Details
	<p>Marie Fleming is a chartered engineering geologist whose 24 years’ experience includes geotechnical desk studies, geological and geomorphological analysis and mapping GIS, environmental impact assessments, geophysics earthworks, geotechnical design and reporting. Marie has been the Lands and Soils lead on various projects from large linear infrastructure projects to private developments providing expert advice on the environmental constraints and opportunities for projects associated with soils, geology and hydrogeology.</p> <p>Juli Crowley BE MSc Eng MIEI CEng, Arup – Soils and Geology</p> <p>Juli Crowley is a Senior Geotechnical Engineer with Arup with over 12 years of engineering experience. She holds a Structural Engineering Degree from Cork Institute of Technology, a Masters in Geotechnical Engineering from Newcastle University and is a Chartered Engineer with Engineers Ireland since 2011. Juli has worked on a broad range of infrastructure, commercial, private and oil and gas projects at pre-tender stage, detailed design stage and post construction stage and has extensive geotechnical design and construction experience. Juli has prepared the soils and geology impact assessments for projects including the M20 Cork to Limerick Motorway.</p> <p>Cathal Mac an tSearraigh and Marie Fleming prepared Chapter 9 of the updated EIAR with assistance from Juli Crowley.</p>
Chapter 10 Hydrogeology	<p>Dr. Leslie Brown PhD MSc BSc, Arup - Hydrogeology</p> <p>Dr. Leslie Brown is a senior hydrogeologist with 21-years groundwater expertise in Ireland, the United Kingdom and Middle East. As an academic Dr. Brown’s doctoral studies include delineating extents of groundwater bodies in karst aquifers, mapping surface and subsurface paleokarst features, quantifying karst flow pathways and limestone geology. He has undertaken post-doctoral research into quantifying recharge mechanisms and identification of hydrogeological pathways for catchment studies. As a consultant Leslie has worked with both the public and private sectors advising on hydrogeological matters for road developments, groundwater supply, turlough hydrogeology, determining zones of contribution to groundwater dependant terrestrial ecosystems and aquifer management. He has specialised on the hydrogeology of linear infrastructure since 2000 and is a co-author for the NRA (2009) Guidelines on Procedures for Assessment and treatment of Geology, Hydrology and Hydrogeology for National Road Schemes.</p> <p>Gerry Baker, BA (Hons), MSc, President of International Association of Hydrogeologists (Irish Group), PGeo EurGeol, Arup – Hydrogeology</p> <p>Gerry Baker is an Associate Hydrogeologist with Arup with 23 years consulting experience working on projects in Ireland, the United Kingdom and Sub-Saharan Africa. Gerry has an MSc in Sustainable Management of the Water Environment (Newcastle-upon-Tyne 2001) and a BA Mod. Geog. (TCD 2000). Gerry has been a professional member (PGeo & EurGeol) of the Institute of Geologists of Ireland (IGI) and European Federation of Geologists (EFG), respectively since 2009 and is a member of the International Association of Hydrogeologists (IAH) of which he served as President of the Irish Group from (2020-2024).</p> <p>Gerry’s main areas of expertise are in groundwater modelling (conceptual, analytical, numerical, contaminant), baseline characterisation of hydrogeological environments, hydrogeological risk assessment, groundwater monitoring design and implementation, groundwater supply well design and pumping tests, urban hydrogeology, peatland hydrogeology, eco-hydrology, dewatering design and implementation, karst hydrogeology, mine hydrogeology, groundwater flooding and assessment of discharges to groundwater.</p> <p>Dr. Alison Orr PhD MSc BSc, Arup - Hydrogeology</p> <p>Dr. Alison Orr is a hydrogeologist with 3 years’ experience working in consultancy on projects in both Ireland and the UK. She has worked on road and metro developments, flood relief schemes, contaminated land, groundwater supply, ground source heating systems and determining zones of contribution for group water schemes. Prior to her consultancy work she completed a PhD into the fate and transport of nitrate in different hydrogeological settings across the island of Ireland.</p> <p>Dr Les Brown prepared Chapter 10 of the updated EIAR with the assistance of Dr. Alison Orr and Gerry Baker.</p>

Topic	Main Author – Competency Details
Chapter 11 Hydrology	<p>Tony Cawley BE M Eng Sc CEng MIEI, Hydro Ltd – Hydrology</p> <p>Anthony Cawley qualified with an honours degree in Civil Engineering from NUI Galway in 1987 and a post graduate master’s degree in Engineering Hydrology from NUI Galway in 1990. He is a Chartered Civil Engineer with specialist education and 34 years professional consulting experience in the water engineering field in a wide variety of activities relating to hydrology, hydrogeology and flooding, and hydrodynamic and hydraulic assessment of fluvial and tidal processes. Over that period he has been involved in well over 200 flooding and coastal modelling assessments.</p> <p>Tony has carried out in excess of 100 flood risk assessment studies on rivers, estuaries and coastal areas throughout Ireland. These studies ranged from scoping type assessments to detailed flood risk assessments involving hydrometric measurements river channel survey, hydraulic modelling and flood inundation mapping. Tony has successfully completed and defended at the oral hearing giving expert witness on the hydrology, hydrogeology, geology and soils components of the EIA assessment for numerous road schemes and infrastructure projects over the past 21 years including the M6, M20/M21, N23 and Lansdowne Stadium Redevelopment.</p> <p>He has also been retained as an expert consultant to An Bord Pleanála for the Dublin Docks Gateway and Alexandra Basin projects in respect to flooding and hydrodynamic processes and is experienced in the requirements of SEA and AA. Tony has been a Hydrology Expert on behalf of ESB involved in Court proceedings in respect to the River Lee Flooding of Cork City in November 2009 UCC v’s ESB.</p> <p>He was a lecturer in hydrology and hydraulics at the Hydrology and Civil Engineering Department at NUI Galway and currently lectures in Hydrology at the University of Limerick (2011 to date). Tony has provided training courses in Hydrology to the Western and Northwestern Fisheries Board and to Engineers Ireland, and Irish Rail and NRDO Design Offices.</p> <p>Tony Cawley prepared Chapter 11 of the updated EIAR.</p>
Chapter 12 Landscape and Visual	<p>Thomas Burns B Agr. Sc. Dip. EIA Mgmt MILI EFLA. Brady Shipman Martin – Landscape and Visual</p> <p>Thomas Burns is a Partner and landscape planner with Brady Shipman Martin. Thomas joined Brady Shipman Martin as a Landscape Architect after graduating from University College Dublin, in 1989. Thomas completed a post-graduate Diploma in Environmental Impact Assessment Management also in University College Dublin, in 1994 and was appointed an Associate of the Practice in 1997. Thomas became a Partner in 2002.</p> <p>Thomas has a strong background in environmental, landscape and planning issues across a wide range of disciplines, including assessment and master-planning. For over 26 years, Thomas has been involved in the masterplanning, planning, environmental assessment and construction of a diverse range of projects, and as part of his involvement, has regularly given expert evidence at planning hearings and other public inquiries. Thomas has been directly involved in the environmental and landscape and visual assessments of many key national infrastructure projects, including over 750km of the national roads programme including the M20 Cork to Limerick Motorway Scheme, the M7 Osberstown Interchange and R407 Sallins Bypass, the Shannon LNG Facility, the Corrib Gas Terminal, T2 Terminal at Dublin Airport and the Dublin DART Underground project. Given his experience on National Roads,</p> <p>Thomas was commissioned by the TII to raft Guidelines for Landscape Treatments on National Roads in Ireland. He has also brought his environmental and landscape planning experience to projects such as the Strategic Environmental Assessment aspect of various statutory plans and programmes, including County Meath Development Plan 2013-2019; the Department of Environment IOSEA 5 and as well being part of the wider project team that carried out the Environmental Assessment of Food Harvest 2020.</p> <p>Thomas is an active member of the Irish Landscape Institute (ILI), where he was Chairperson of the Professional Practice Committee since its inception in 1995 until 2011. Thomas also previously served as the ILI Representative on the Council of the European Foundation of Landscape Architecture (EFLA) from 1997 to 2000.</p> <p>Thomas Burns prepared Chapter 12 of the updated EIAR.</p>

Topic	Main Author – Competency Details
Chapter 13 Archaeology, Architectural and Cultural Heritage	<p>Faith Bailey MA BA MCIfA, IAC Archaeology – Archaeology, Architectural and Cultural Heritage</p> <p>Faith Bailey is a Senior Archaeologist and Cultural Heritage Consultant with IAC Ltd. She holds an MA in Cultural Landscape Management (archaeology and built heritage) and a BA in single honours archaeology from the University of Wales, Lampeter. Faith is a licence eligible archaeologist, a member of the CIfA and has over 19 years’ experience in the sector.</p> <p>Faith has been responsible for the production and delivery of a large number of archaeological and built heritage desk top assessments, surveys, EIA, master plans, LAP/SEA and management plans associated with all sectors of development in the Republic and Northern Ireland. Archaeological and Architectural EIA for large scale road schemes, include the M7 Osberstown Interchange and R407 Sallins Bypass Scheme, the M11 Enniscorthy Bypass in County Wexford and the N22 Ballyvourney-Macroom Bypass in County Cork.</p> <p>Faith’s in-depth knowledge of the planning systems and heritage legislation within both the Republic of Ireland and Northern Ireland, twinned with the excellent working relationship with clients and statutory authorities makes her one of the most experienced archaeological and cultural heritage consultants currently operating within the sector.</p> <p>Faith Bailey prepared Chapter 13 of the updated EIAR.</p>
Chapter 14 Material Assets Agriculture	<p>Con Curtin, Curtin Agricultural Consultants Ltd – Material Assets Agriculture</p> <p>Con Curtin is an agricultural consultant with an undergraduate honours degree in Agricultural Science from University College Dublin (1987), a Level 6 Certificate in Agricultural Land Drainage (awarded by Teagasc in 2016) and has 30 years’ experience working in the agricultural consultancy sector. He has worked for three years with ADAS (Agricultural Development and Advisory Service) in the UK as an agricultural advisor, and since 1990 as an agricultural consultant in Ireland. In 1996 he established his own company, Curtin Agricultural Advisers Ltd.</p> <p>Con divides his time between general consultancy work for his farmer clients (dairy, pigs, beef, sheep and equine) and Land Use / Agricultural Environmental Impact Reports for consulting engineers. Con has prepared Land Use / Agricultural Impact Reports for linear developments such as railway schemes, electricity overhead lines and major roads schemes (15 No. since 1998) including; M20 Cork to Limerick Motorway Scheme (80km); N22 Baile Bhuirne to Macroom (25km); M7 Castletown to Nenagh (40km); N25 New Ross Bypass (13.5km); N25 Waterford Bypass (40km); and N6 Galway City Outer Bypass (21km – 2006 planning application). He has prepared constraints and route selection reports and presented oral evidence at public hearings for most of these road projects. He has prepared the Land Use Impact Report for the North - South 400kV Interconnection Development (140km) in Counties Meath, Cavan, Monaghan, Armagh and Tyrone. Con has carried out land damage assessments for Bord Gais along gas pipelines in Northern Ireland and the Republic of Ireland and advises on drainage issues.</p> <p>Michael Sadlier, EVC - Equine</p> <p>Michael Sadlier graduated as a veterinary surgeon from University College Dublin in 1983. Since then, he has worked in veterinary practice around the world, specialising in equine medicine and surgery. He has also achieved numerous post graduate qualifications – a certificate in Equine Stud Medicine from the Royal College of Veterinary Surgeons in 1989, membership by examination of the Australian College of Veterinary Scientists in Equine Surgery in 1992 and achieved a Certificate in Equine Surgery from the Royal College of Veterinary Surgeon in Equine Orthopaedic in 1995.</p> <p>He is currently a Partner in a Six Partner Multi-Site Veterinary Hospital on the Curragh, Co. Kildare that employs another 13 veterinary surgeons and 22 support staff. The practice provides a referral facility for the whole of Ireland and is a world recognised centre of excellence.</p> <p>He is currently an elected member of the Veterinary Council of Ireland, which is the statutory regulatory body for the profession in Ireland. He has been the Irish representative on the National Council of the British Equine Veterinary Association for the past 8 years. Michael was a Past Chairman of the Equine Committee of Veterinary Ireland, the representative body for the profession in Ireland. He also has served on the Board of Directors of Veterinary Ireland and on the Board of Governors of the Irish Equine Centre. He is a regular speaker at veterinary meetings, nationally and internationally.</p>

Topic	Main Author – Competency Details
	<p>Michael Sadlier has provided expert equine veterinary opinion to TII on the potential effects the following road schemes (M8, M17, N4, N11, N18, N22 N30, N60 and N61) would have on selected equine properties. He has also provided expert equine veterinary opinion to Iarnrod Éireann on the proposed Navan to Dunboyne Rail development, Bord Gáis on Baunlusk to Great Island Gas Pipeline and Eirgrid on the North-South Interconnector and Cork-Kildare 400kV Line and the potential impacts these schemes would have had on numerous equine properties on the proposed routes. He has also assessed the effects the proposed incinerator at College Proteins in Nobber, Co. Meath would have on surrounding equine holdings.</p> <p>Con Curtin prepared Chapter 14 of the updated EIAR with assistance from Michael Sadlier.</p>
Chapter 15 Material Assets Non-Agriculture	<p>Eileen McCarthy BE (Hons) MIEI CEng, MICE CEng, PE (USA), Arup and Mary Hurley BE (Hons) MIEI CEng, Arup</p> <p>See above</p> <p>Dr. Craig Bullock, Optimize Consultant – Commercial Properties</p> <p>Dr. Craig Bullock has a PhD in Environmental and Resource Economics (UCD, 2004) and a Diploma in Environmental Impact Assessment (UCD, 2001). He has written over 40 peer-reviewed papers in environmental policy/economics and socio-economics.</p> <p>Craig has over 23 years’ experience working in the field of environmental impact assessment (Human Beings and Social/Socio-Economic assessment) and over 30 years in the fields of environmental policy analysis, environmental economics and socio-economics. He manages his own consultancy www.optimize.ie which was registered in 1999 and has also been a part-time research fellow in the School of Architecture, Planning and Environmental Policy at University College Dublin since 2001.</p> <p>During this time Craig has worked on over 60 environmental impact assessments of road projects, public transport, flood mitigation, waste water treatment, peat extraction, residential and hotel development. This experience has included large scale projects such as the DART Underground development, LUAS Finglas and the M20 motorway scheme. He has acted as specialist witness for many of these projects.</p> <p>Michael Saddlier – Equine</p> <p>See above</p> <p>Eileen McCarthy and Mary Hurley supervised the preparation of Chapter 15 of the EIAR with assistance of Dr. Craig Bullock for the assessment of commercial properties, and Michael Saddlier for Galway Racecourse.</p>
Chapter 16 Air Quality	<p>Sinead Whyte MSc CMIWEM, Arup – Air Quality</p> <p>Sinead Whyte has over 27 years’ experience as an Environmental Consultant. She holds a MSc in Experimental Physics and is Chartered for over 10 years with the Institute of Water and Environmental Management. She has prepared numerous Air Quality and Climate Impact Assessments for infrastructural developments including DART Underground, M20 Cork to Limerick Motorway, M7 Osberstown Interchange and R407 Sallins Bypass and N9/N10 Kilcullen to Powerstown. Sinead presented expert witness evidence at the An Bord Pleanála oral hearings into these developments.</p> <p>Sinead Whyte prepared Chapter 16 of the updated EIAR.</p>
Chapter 17 Climate	<p>Sinead Whyte MSc CMIWEM, Arup –Climate</p> <p>See above</p> <p>Sinead Whyte prepared Chapter 17 of the updated EIAR.</p>

Topic	Main Author – Competency Details
Chapter 18 Noise and Vibration	<p>Jennifer Harmon BSc- AWN Consulting Limited – Noise and Vibration</p> <p>Jennifer Harmon is Senior Acoustic Consultant at AWN Consulting. She has worked as a consultant since 2000, specialising in acoustics since 2001. She holds a BSc in Environmental Science, a Diploma in Acoustics and Noise Control and is a full member of the Institute of Acoustics (IOA). Jennifer has extensive experience in the field of environmental noise and vibration impact assessment, noise control engineering, building and room acoustics. Jennifer has prepared noise and vibration impact assessments for a wide range of transport projects across Ireland including new road schemes, road realignment and upgrade projects, light and heavy rail projects and landside air-noise. Her experience in road traffic noise impact assessment includes extensive baseline studies, detailed transport noise models, noise mitigation design and construction impact assessments.</p> <p>Jennifer Harmon prepared Chapter 18 of the updated EIAR.</p>
Chapter 19 Human Beings, Population and Human Health	<p>Dr. Craig Bullock, Optimize Consultant - Socio-Economic Assessment</p> <p>See above</p> <p>Health assessment</p> <p>Dr. Martin Hogan, Corporate Ltd, T/A Corporate Health Ireland– Health</p> <p>Dr. Martin Hogan is a medical doctor, registered with the Irish Medical Council as a Specialist in Occupational Medicine since 1997. He has 26 years’ experience in assessing Human Health impacts of proposed developments and has contributed to many Environmental Impact Statements. He has given evidence in over 20 Oral Hearings including transport infrastructure such as road, rail and airport development, as well as waste management including landfills and incinerators.</p> <p>His specialist interests include Occupational Medicine in the Pharmaceutical and Chemical industry and Environmental Medicine. He lectures in Toxicology in University College Cork. He is a past National Speciality Director of Occupational Medicine in Ireland and a past Dean of the Faculty of Occupational Medicine of the Royal College of Physicians of Ireland. He is the President of the Organising Committee for ICOH 2018 and a member of the Board of ICOH (International Commission on Occupational Health).</p> <p>John Cronin BA, John Cronin & Associates – Irish Language</p> <p>John Cronin is a cultural heritage and conservation consultant with 30 years’ postgraduate experience garnered in the public and private sectors. He holds a B.A. in Archaeology and Geography from University College Cork and was awarded postgraduate degrees in planning and conservation from University College Dublin. Since entering private practice in 2000, Mr. Cronin has specialised in assessing the impact of development on cultural heritage resources and has acted as consultant to The Heritage Council, the National Inventory of Architectural Heritage and Fáilte Ireland. Mr. Cronin has prepared cultural heritage assessments for environmental impact assessments throughout Ireland (both within Northern Ireland and the Republic of Ireland). Since 2006, John Cronin & Associates have prepared language impact assessments for numerous development projects within Gaeltacht areas. Noteworthy assessments have included:</p> <ul style="list-style-type: none"> • N59 Maigh Cuilinn (Moycullen) Bypass Road Development, County Galway • N6 Galway City Outer Bypass 2006, County Galway • Housing Development, Ballynabooly, Dingle, County Kerry • Tourism Development, Cloghan Lodge, Ballybofey, County Donegal • Residential development, Rathkieran, The Glen, Ballinskelligs, County Kerry <p>Dr. Craig Bullock and Dr. Martin Hogan with assistance from John Cronin on the Irish Language both prepared Chapter 19 of the updated EIAR.</p>

Topic	Main Author – Competency Details
Chapter 20 Resource and Waste Management	<p>Janet Lynch BEng (Hons), MIEI MCIWM</p> <p>Janet Lynch is an Associate with Arup with over 20 years’ experience in resource and waste management, circular economy, EIA and industrial emissions licensing.</p> <p>Her experience includes, Resource and Waste Management Plans, Construction and operational waste management plans, Circular Economy Statements, Material reuse and recycling studies in engineering, Planning and EIA project management (energy, renewables, industrial, infrastructure); Industrial Emissions (IE) License applications & review (wastes, biomass, oil and gas, energy, cement, pharmaceutical); Previous experience includes Sustainable Energy Ireland, Dublin City Council and Arup London. Janet is chair of the NSAI Technical Committee on Circular Economy in the Construction Sector.</p> <p>Janet holds an honours degree in Civil and Environmental Engineering from University College Cork and a FETAC Certificate in Waste Facility Management. She is a Chartered Member of Engineers Ireland (CEng) and a Chartered member of the Chartered Institution of Wastes Management (CIWM).</p> <p>Simon Grennan BA (Mod.), MSc, Arup – Resource and Waste</p> <p>Simon Grennan is a Senior Environmental Consultant with Arup and has 10 years’ experience in the environmental sector. Simon holds an MSc in environmental Sciences from Trinity College Dublin. Simon has a wide range of experience in the environmental field, with specific experience in EIA coordination and preparation and waste management consultancy work. Simon has significant experience working on construction and demolition resource and waste management plans, operational waste management plans and resource and waste management EIAR chapters for projects across a range of sectors. Example projects include the Dart+ Coastal North EIAR, the N25 Little Island Pedestrian and Cyclist Bridge EIAR, the IDL Midleton distillery expansion EIAR and the Guinness Quarter EIAR.</p> <p>Janet Lynch supervised the preparation of Chapter 20 of the updated EIAR.</p>
Chapter 21 Major Accidents, Inter-relationships, Interactions and Cumulative Impacts	<p>Eileen McCarthy BE (Hons) MIEI CEng, MICE CEng, PE (USA), Arup and Mary Hurley BE (Hons) MIEI CEng, Arup</p> <p>See above</p> <p>Eileen McCarthy and Mary Hurley supervised the preparation of Chapter 21 of the updated EIAR.</p>
Chapter 22 Summary of Mitigation Measures and Residual Impacts	<p>Eileen McCarthy BE (Hons) MIEI CEng, MICE CEng, PE (USA), Arup and Mary Hurley BE (Hons) MIEI CEng, Arup</p> <p>See above</p> <p>Eileen McCarthy and Mary Hurley supervised the preparation of Chapter 22 of the updated EIAR.</p>
Chapter 23 Schedule of Environmental Commitments	<p>Eileen McCarthy BE (Hons) MIEI CEng, MICE CEng, PE (USA), Arup and Mary Hurley BE (Hons) MIEI CEng, Arup</p> <p>See above</p> <p>Eileen McCarthy and Mary Hurley supervised the preparation of Chapter 23 of the updated EIAR.</p>

1.2.6 EIAR Scoping

“Scoping” is a process of deciding what information should be contained in an EIAR and what methods should be used to gather and assess that information. Informal EIAR scoping of N6 Galway City Ring Road (GCRR) was carried out in order to determine the content and extent of the matters which should be covered in the environmental information to be included in the 2018 EIAR. As part of the 2018 EIAR non statutory scoping process, a scoping report was issued to all relevant statutory and non-statutory consultees. These consultees are included in Section 1.4 of this updated EIAR. Comments received during this consultation phase and the subsequent oral hearing process were reviewed and considered in the preparation of this updated EIAR. Consultations undertaken subsequent to the remittal of the Section 51 application to ABP have also been considered in the preparation of this updated EIAR.

1.2.7 EPA Guidelines and other guidelines

This updated EIAR has been prepared with due regard to the guidelines on the preparation of environmental impact assessment reports published by the EPA. These are contained in:

- Guidelines on the Information to be Contained in Environmental Impact Assessment Reports, May 2022, EPA
- Advice Notes on Current Practice (in preparation of Environmental Impact Statements), 2003, EPA

Moreover, the updated EIAR has been prepared having had due regard to the following, all of which remain, relevant today for this updated EIAR:

- European Union (2013) Guidance on Integrating Climate Change and Biodiversity into Environmental Impact Assessment
- European Commission (2017) Guidance on the preparation of the Environmental Impact Assessment Report (Directive 2011/92/EU as amended by 2014/52/EU)
- European Commission (2012) Interpretation suggested by the Commission as regards the application of the EIA Directive to ancillary/associated works
- European Commission (2006) Clarification of the application of Article 2(3) of the EIA Directive
- European Commission (1999) Guidelines for the Assessment of Indirect and Cumulative Impacts as well as Impact Interactions
- Transport Infrastructure Ireland (formerly National Roads Authority) (2008) Environmental Impact Assessment of National Road Schemes – A Practical Guide
- TII Environmental Planning of National Road and Greenway Projects (TII, 2023)

1.3 Background

This section provides some background to the proposed N6 GCRR. Section 1.3.1 gives an overview of the N6 Galway City Outer Bypass which was an earlier project for a bypass of Galway City that went through the planning process in 2006. Section 1.3.2 outlines the development of the transport solution to address the very serious traffic issues facing Galway City and the Galway Transport Strategy (GTS).

1.3.1 N6 Galway City Outer Bypass

The N6 Galway City Outer Bypass, an earlier scheme, was previously developed and submitted to An Bord Pleanála (ABP) for approval on 1 December 2006. A brief summary of its history is outlined below.

Consultants were appointed in 1999 to undertake feasibility studies, route selection, design and planning for the N6 Galway City Outer Bypass. The resultant scheme including the Compulsory Purchase Order (CPO) and Environmental Impact Statement (EIS) was submitted to An Bord Pleanála (ABP) on 1 December 2006. This scheme consisted of 21.4km of mainline, 9km of link roads, associated junctions and a major bridge crossing of the River Corrib. This scheme is referenced as the N6 Galway City Outer Bypass (2006) together with the acronym of 2006 GCOB throughout this report.

On 28 November 2008, ABP delivered its decision in respect of the 2006 GCOB. ABP considered that the need for an outer bypass of Galway City connecting the existing N6 on the east to the R336 Coast Road on the west as an essential part of the strategic transport network of the Galway area had been established.

ABP granted approval for the eastern part of the scheme, the section from the N59 Moycullen Road east to the existing N6, inclusive of both junctions at the N59 Moycullen Road and the existing N6. In its decision, ABP noted its consideration of all data presented and granted approval as it considered that the part of the road development being approved would be an appropriate solution to the identified traffic needs of the city and surrounding area. ABP noted that there would be a localised severe impact on the Lough Corrib candidate Special Area of Conservation (cSAC) ¹⁴.

However, given that a section of the proposed 2006 GCOB would cut through Tonabrocky Bog which is:

- part of the Moycullen Bogs Natural Heritage Area (NHA)
- an active Blanket bog listed as a priority habitat in Annex I of the EU Habitats Directive
- the site of a population of Slender cotton grass which is a legally protected and vulnerable species

ABP was not satisfied that this part of the proposed 2006 GCOB, between the N59 Moycullen Road and R336 Coast Road, would not be prejudicial to the preservation of the Tonabrocky bog habitat or that the significant adverse effects on the environment would not be avoidable or could not be better addressed by an alternative route¹⁰, and that therefore ABP considers that this part of the proposed 2006 GCOB would be contrary to the proposed planning of sustainable development of the area.

An application was made by a third party to the High Court seeking leave to issue judicial review proceedings against the ABP decision which granted approval of the eastern section of the 2006 GCOB under Article 6(3) of the Habitats Directive (92/43/EEC), as amended. The basis for the request for a review was that ABP had erred in its interpretation of Article 6 of the Habitats Directive (92/43/EEC), as amended, in arriving at the conclusion that the effect of the 2006 GCOB road scheme on the Lough Corrib cSAC designated site would not constitute an adverse effect on the integrity of the site.

The High Court undertook a judicial review of the ABP decision. The High Court decision of 9 October 2009 upheld ABP's decision to approve the eastern part of the 2006 GCOB. On 6 November 2009, the third party was granted leave to appeal to the Supreme Court against the High Court decision of 9 October 2009. The Supreme Court sought the opinion of the Court of Justice of the European Union (CJEU) on an interpretation of the Habitats Directive.

The opinion of the CJEU was delivered on the 11 April 2013 (Case C-258/11). The opinion concluded on two significant points:

1. The 2006 GCOB would have an adverse effect on the integrity of the Lough Corrib cSAC due to the removal of 1.47ha of Limestone pavement (a habitat type for which the cSAC was selected)
2. Given that the 2006 GCOB would have an adverse effect on the integrity of the cSAC, the proposed project could not be authorised under Article 6(3) of the Habitats Directive. It could only be authorised under Article 6(4) of the Habitats Directive

The CJEU opinion (i.e. Case C-258/11) established that the loss of a relatively small area of Priority Annex I habitat, where it is a habitat for which the Lough Corrib cSAC is selected, would adversely affect the integrity of the Lough Corrib cSAC and that the provisions of Article 6(4) must apply in granting consent for the project i.e.

6(4) "If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature, the Member State shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted".

¹⁴ Reference ABP decision 07.ER.2056

Following receipt of the CJEU opinion, the Supreme Court quashed the earlier ABP decision to grant approval of the eastern section of the 2006 GCOB under Article 6(3) of the Habitats Directive, as amended.

As the decision of the Supreme Court was that the 2006 GCOB could not be granted approval per Article 6(3) of the Habitats Directive, the next recourse to secure planning was to advance the project under Article 6(4) of the Habitats Directive. Noting what ABP in its decision on the 2006 GCOB stated, namely that the need for an outer bypass of Galway City connecting the M6/N6 national primary road at Garraun to the R336 regional coast road, being an essential component of the strategic transport network of the Galway area, had been established and having reviewed the requirements of Article 6(4), it was decided to reassess the work to date to ensure that all possible alternatives were investigated in advance of proceeding under Article 6(4). Therefore, the process of developing a transportation solution for Galway City and its environs had to recommence from the start at Phase 1, feasibility and concept stage, to ensure that all possible alternatives were fully investigated.

Further consideration of the N6 Galway City Outer Bypass (2006) is detailed in Chapter 4, Alternatives Considered, of this updated EIAR.

1.3.2 Development of a Transport Solution for Galway

The need for a transport solution has been considered at both a regional level in terms of serving the strategic function, and at a local level in terms of providing an integrated transport solution for the city and environs. Therefore, the development of the transport solution has involved a wide selection of stakeholders, all of whom had an integral part in developing the vision but more critically all have an integral part in ultimately delivering the solution also.

Galway County Council, Galway City Council, Transport Infrastructure Ireland and the National Transport Authority (NTA) collaborated in developing a transport vision for Galway where all elements of transport are working together to achieve an integrated sustainable solution. This section summarises the development of this transport vision, part of which includes the proposed N6 GCRR.

The N6 Galway City Transport Project (GCTP) refers to the initial studies undertaken for the transport solution in Galway. The Galway Integrated Transport Management Programme (ITMP) began as the transport strategy developed by Galway City and County Council in partnership with the NTA in parallel to the N6 GCTP and is now referred to as the Galway Transport Strategy (GTS). The GTS took into account and sought to achieve the objectives laid down in Smarter Travel. It also aligns with the more recent National Investment Framework for Transport in Ireland (NIFTI) 2021, National Sustainable Mobility Policy 2022 and National Sustainability Mobility Policy Action Plan (2022-2025). The proposed N6 GCRR is the road component of the transport solution identified in the N6 GCTP and orbital route identified in the GTS and the subject of this updated EIAR. This confirms that the proposed N6 GCRR has been designed in accordance with the objectives of sustainable mobility and the above listed policies.

1.3.2.1 N6 Galway City Transport Project

The initial studies for this transport solution were undertaken as part of the N6 Galway City Transport Project (GCTP) between 2014 and 2015. The N6 GCTP recognised that Galway has a transport problem and confirmed that there is a strong need to address the transport issues facing the city and surrounding areas at present, and to underpin future growth by establishing a long-term strategy for transport to, within and around the city. The studies undertaken for the N6 GCTP confirmed that a new River Corrib bridge crossing is possible and identified a preferred location for this crossing. The proposed road development which incorporates this river crossing is now referred to as the N6 Galway City Ring Road and is the subject of the Section 51 Application.

Further details on the studies (such as constraints and options development) carried out as part of the N6 GCTP are provided in Chapter 4, Alternatives Considered of this updated EIAR.

1.3.2.2 Galway Transport Strategy

In parallel to the N6 GCTP, Galway City Council and Galway County Council, in partnership with the NTA developed an overall transport strategy for Galway City and its environs culminating as Galway Transport Strategy (GTS) which provides Galway City and its environs with a clear implementation framework for transportation over 20 years (2016 to 2036). The GTS aims to address the current and future transport

requirements for the city and its environs, which encompasses the city and its connectivity to surrounding towns and villages, including Bearna, Oranmore, Moycullen and Claregalway.

Consultation with key stakeholders and the public was undertaken throughout to inform the development of the strategy. This strategy was subsequently endorsed by the elected members of both the City and County Council and forms part of the Galway City Development Plan (2023 to 2029) and Galway County Development Plan (2022 to 2028).

The GTS included an evaluation of transport options for all modes and affirmed the strategic need for an orbital route around the city centre and a new crossing of the River Corrib, in order to implement the level of service required for each mode of transport, including walking, cycling, public transport and private vehicle.

There are currently four crossings of the River Corrib and each bridge is currently at capacity. The GTS proposes to make one of these crossings available for public transport only as part of BusConnects Cross City Link which was granted approval by An Bord Pleanála on 2 October 2024, (which is subject to challenge by Judicial Review), forcing traffic to divert out to the Quincentenary Bridge. Therefore, an additional crossing of the River Corrib is critically required to effectively implement the orbital route. This additional crossing of the River Corrib is being progressed as part of the proposed N6 GCRR.

The GTS aims to remove non-essential motorised traffic from the core city centre area (i.e. traffic travelling through the city centre whose origin and destination lie outside the city centre). This will be achieved using a combination of routes around the city centre (termed the ‘City Centre Access Network’ shown in black in Plate 1.1), and will prioritise other modes within the core city centre area via the ‘Cross-City Link’ (shown in blue on Plate 1.1), a proposed corridor through the core city centre area with higher levels of priority allocated to walking, cycling and public transport over private car traffic. (Refer to Chapter 3, Need for the Project for further information on the GTS).



Plate 1.1 City Centre Access Network

The core city centre area inside of the City Centre Access Network, will see road space reallocated to prioritise public transport and active modes. This will in turn facilitate public realm improvements along the Cross-City Link corridor, but requires changes in movements for private cars within the city centre to facilitate this. The city centre remains accessible, but priority is no longer given to the private car in this area or to the through movement in this area. This is best explained graphically in Plate 1.2 below.

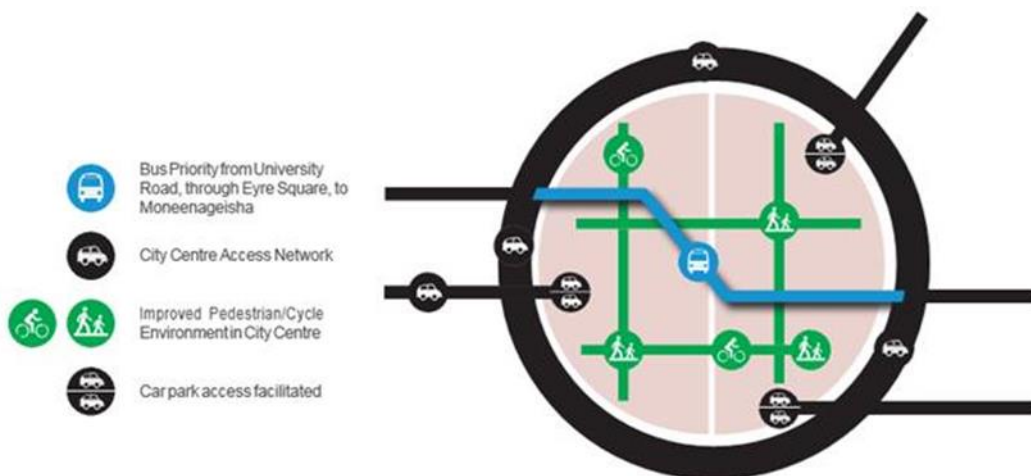


Plate 1.2 Cross-City Link Concept

Closing down and limiting access through the city within the area inside of the City Centre Access Network will facilitate a modal shift in the core area, whilst also shifting traffic out to the orbital route, which is the proposed N6 GCRR. It is sequential: modal shift occurs within the core, and non-core traffic is shifted out to the orbital route. Therefore, the proposed N6 GCRR, the subject matter of the Section 51 Application, is a necessary component of the Galway Transport Strategy in order to deliver the optimum transport solution for Galway.

The achievement of maximum modal shift is contingent on the construction of the proposed N6 GCRR (refer to Chapter 6, Traffic Assessment and Route Cross-Section). The updated transport modelling shows that other measures in the GTS can deliver benefits in the short-term. However, the updated modelling which accounts for updated traffic numbers, Census data and the forecast demand as per the NPF shows that the proposed N6 GCRR is necessary to enable the optimal operation of the entire transport network, including the public transport systems. The proposed N6 GCRR is necessary to resolve the transport issues in Galway which is essential to enable Galway to accommodate the population forecasts in the NPF in a compact form in the longer term. (Refer to Chapter 3, Need for the Project for further information on the need for the proposed N6 GCRR).

Since the conclusion of the oral hearing, the Climate Action Plan 2023 and 2024 were published which contain more specific detail on what is required in terms of demand management measures to achieve our climate action goals. Chapter 6 of this updated EIAR assesses the implications of the full complement of the Climate Action Plan demand management measures with the full GTS in place including the proposed N6 GCRR.

An Bord Pleanála's Inspector in their report dated 22 June 2021, noted in their reasons and considerations for granting approval for the proposed N6 GCRR that noted that

“the scheme constituting a key transportation element for the Galway Transport Strategy”

and

“Importantly, this was the view of an independent An Bórd Pleanála Inspector, having considered in some significant detail the provision of light rail as an alternative to the proposed N6 GCRR after hearing evidence from many proponents and opponents of the proposed N6 GCRR.”

and

“I am of the view that it has been demonstrated that there is a clear and pressing need for the PRD as a result of the issues faced by Galway City which suffers from undue traffic congestion, delays and

poor journey characteristics. Furthermore, the congestion and delay are forecast to continue and to worsen without any major intervention. It has also been clearly demonstrated that the proposed development would facilitate the freeing up of the city and village centres thereby enabling the other projects identified to succeed in the goals of modal change.”

This was the view the An Bórd Pleanála Inspector, having considered in some significant detail the need for the proposed N6 GCRR after hearing evidence from many proponents and opponents of the proposed N6 GCRR.

1.4 Consultation Process / Non-Statutory Consultation

As set out in the 2018 EIAR, extensive consultation has taken place via public information sessions and discussions with key stakeholders, relevant statutory bodies, property owners, local organisations and utility/service providers throughout the constraints and route selection stages, design stage and during the EIA and statutory processes. This consultation continued during the oral hearing in 2020 and recommenced in 2023 to inform this updated EIAR. All the consultations undertaken to date have been reviewed and taken into consideration in this updated EIAR.

1.4.1 Consultations since 2018

When the proposed N6 GCRR was submitted to An Bord Pleanála (ABP) in October 2018 as part of the application for approval pursuant to Section 51 of the Roads Act 1993 (as amended) all property owners were notified. Galway County Council put the documentation submitted to ABP for approval on public display for an eight-week period and submissions were made to ABP. The submissions were responded to during the course of the oral hearing in 2020.

As detailed in Chapter 8 of this updated EIAR, extensive consultation took place with National Parks & Wildlife Service (NPWS) since 2018. In January 2020, NPWS submitted an observation with respect to the proposed N6 GCRR, the subject of this application for approval under Section 51 of the Roads Act 1993 (as amended) (the “Section 51 Application”). Meetings took place during the course of the oral hearing in March 2020 with NPWS to discuss their submission. Refer to Chapter 8 of this updated EIAR for further details of this consultation.

A meeting was held in March 2023 with the NPWS in relation to the 2018 bat survey baseline and proposed scope of surveys for the 2023 survey season and any requirements for the Bat Derogation Licence Application. A further meeting was held with NPWS in March 2024 to discuss the findings of the bat surveys and discuss the draft of the Bat Derogation Licence Application. The licence was approved by NPWS on 10 April 2024 (see Appendix A.8.25 Part 1 of the updated EIAR), however this licence expired on 31 December 2024 and a new bat derogation licence application was submitted to the NPWS on 1 April 2025 (included in Appendix A.8.25 Part 2 of the updated EIAR). Derogation licences granted by the NPWS are published, along with the application and any supporting documentation, on their website at <https://www.npws.ie/licensesandconsents/disturbance/application-for-derogation/bat-derogations-issued>. **Please note, ABP will be able to see when the Bat Derogation Licence is granted, and obtain a copy of the final granted licence, by clicking on this link.**

All property owners were notified again in 2021 of ABP’s decision to grant approval for the proposed N6 GCRR and again in 2022 when the High Court remitted the application back to ABP for further consideration.

The following utility providers were consulted again in 2024 to review the potential conflicts between the Project and their infrastructure to ensure any necessary mitigation measures, including diversions were taken into account in Chapter 15 of this updated EIAR. There are no material changes to necessitate additional mitigation measures or diversions from what was presented in the 2018 EIAR.

- Galway County Council – Water Services Department for Drainage and Roads and Transportation Department for Traffic
- Galway City Council – Water Services Department for Drainage and Roads and Transportation Department for Traffic
- Irish Water – Watermain, Foul Sewer

- Éir
- Electricity Supply Board (ESB) (ESB Networks)
- Gas Networks Ireland – Transmission and Distribution
- E-Net
- SSE Airtricity
- Virgin Media
- BT Ireland
- Three Networks Ireland
- Vodafone

1.4.2 Consultations pre-2018

The following consultations took place between 2014 and 2018 to inform the 2018 EIAR. Findings for this consultation was reviewed and updated as necessary to inform this updated EIAR. Key stakeholders and statutory bodies included:

- An Bord Pleanála
- Galway County Council
 - Chief Executive
 - Director of Services for Planning, IR, Community, Enterprise & Economic Development
 - Director of Services for Water Services and Environmental
 - Director of Services for Roads, Transportation, Marine and General Services
 - Director of Services for Housing, Corporate & Emergency Services
- Galway City Council
 - Chief Executive
 - Director of Services for Planning & Transportation
 - Director of Services for Finance, Management Services Unit and Water Services
 - Director of Services for Economic Development, Community & Culture, Corporate Services, ICT and Human Resources
 - Director of Services for Housing & Social Inclusion, Environment & Recreation and Amenity
- The Minister for the Environment, Community and Local Government (now referred to as Minister for Housing, Planning, and Local Government with community and rural affairs forming a new department)
- The Minister for Communications, Energy and Natural Resources (now referred to as Minister for Environment, Climate and Communications)
- The Minister for Transport, Tourism and Sport (now referred to as Minister for Transport)
- The Minister for Arts, Heritage, Regional, Rural and Gaeltacht Affairs (now referred to as Minister for Housing, Local Government and Heritage)
- Development Applications Unit of the Department of Housing, Local Government and Heritage
Department of Agriculture, Food and the Marine
- West Regional Authority

- Iarnród Éireann
- Córas Iompair Éireann
- Bus Éireann
- City Direct
- Galway Harbour
- Transport Infrastructure Ireland (TII)
- An Chomhairle Ealaíon (The Arts Council)
- Fáilte Ireland
- An Taisce
- The Heritage Council
- Waterways Ireland
- Environmental Protection Agency (EPA)
- Health and Safety Authority
- Commission for Energy Regulation
- Health Service Executive
- Office of Public Works
- Bat Conservation Ireland
- Bird Watch Ireland
- Irish Raptor Study Group
- Irish Georgian Society
- Geological Survey of Ireland
- American Chamber of Commerce
- Galway Chamber of Commerce
- Inland Fisheries Ireland
- Inland Waterways Association of Ireland
- Irish Wildlife Trust
- Met Éireann
- Irish Farmers Association
- Irish Peatland Conservation Trust
- National Museum of Ireland
- University of Galway
- Galway City Development Board
- Galway County Development Board
- Uisce Éireann

1.4.3 Public Consultation leading to the 2018 EIAR

As set out in the 2018 EIAR four public information sessions were held as part of the identification of the preferred corridor for the proposed N6 GCRR and on its design as it progressed. These sessions are as follows and are discussed further below:

- Public Consultation No. 1 as part of the Constraints Study in July 2014 over two days
- Public Consultation No. 2 as part of the Options Development in January/February 2015 over four days
- Public Display No. 3 of the Emerging Preferred Route Corridor for the N6 Galway City Ring Road in May/June 2015 over two days. The Galway Transport Strategy also formed part of this consultation
- Public Display No. 4 of the Design of the N6 Galway City Ring Road in November 2016

Feedback received from the public consultations informed the constraints study and development of route options and the design of the emerging preferred route once selected. The local knowledge received at the public consultation and through submissions received identified new constraints and informed the development of route options and selection of the emerging preferred route corridor (EPRC). It also reinforced the traffic problems experienced in Galway City and its environs and need for an integrated transport solution which was multi-modal. This led to a parallel study of public transport and smart mobility measures which culminated in the Galway Transport Strategy (GTS). The historical importance of Menlough Village and the extents of communities across the study area were better understood post public consultation. The consultations with the public also reinforced the significant constraints present restricting the development of a new road and whilst some of the significant impacts were unfortunately unavoidable some positive changes were implemented into the design. Some of these include: the junction strategy in the Bearna Area and the retention of the mass path in Parkmore; landscape and visual improvement including the lowering of the proposed N6 GCRR from an overbridge to at-grade junction at Cappagh Road and changing from an overbridge at Hynes' Boreen in Castlegar to being in a cutting to at-grade; moving the N59 Letteragh Junction further west and revision of the Coolagh Junction. 'Green reinforced embankments' instead of concrete retaining walls have also been incorporated into the design where the proposed N6 GCRR is in close proximity to dwellings. These enhancements and others made to the design following feedback from public consultations is detailed further in Chapter 4, Alternatives Considered.

1.4.3.1 Public Consultation No. 1 – Constraints

As part of the Constraints Study, public consultation sessions were held on Monday 14 July 2014 in the Westwood Hotel, Dangan from 10:00am to 9:00pm and on Tuesday 15 July 2014 in the Pillo Hotel, Headford Road from 10:00am to 9:00pm.

The initial results of the constraints study were displayed to the public at the consultation sessions. The aim of this was to receive feedback from the public and gain invaluable information from their local knowledge of constraints that may have been overlooked.

Representatives from Arup and Galway County Council were in attendance to assist the public in explaining the material on display. Over 100 people signed the attendance register.

The main feedback from this public consultation was as follows:

1. The scheme study area should extend further west and north
2. Concerns were raised in relation to the restrictions on lands located along the road of the N6 Galway City Outer Bypass (2006)
3. An additional crossing of the River Corrib was required and this new bridge should not adversely affect the navigation of the River Corrib
4. Current traffic and congestion issues, including inadequacies in the current public transport network were highlighted. Bus frequencies, routes and infrastructure need to be improved
5. Provision of a connection to the R336 west of Bearna
6. Proposals to tunnel under the Limestone pavement

7. Provision of school buses would provide a safe mode of transport for children and ease congestion at peak morning times
8. Additional constraints were identified

Full details of this consultation and submissions received from the public are contained in Appendix A.1.1.

1.4.3.2 Public Consultation No. 2 – Options

Public consultation sessions were held on Wednesday 28 and Thursday 29 of January 2015 in the Westwood Hotel, Dangan, from 2.00pm to 8.00pm, and on Tuesday 3 and Wednesday 4 of February 2015 in the Menlo Park Hotel from 2.00pm to 8.00pm. Over 1,450 people signed the attendance register over the four days of public consultation sessions.

These sessions formed part of the option selection process. Boards documenting the options examined to date and their feasibility were displayed, along with proposed solution options incorporating public transport, smarter travel and road-based components. Maps showing proposed road-based solutions with the constraints gathered during the Constraints Stage were also displayed. Representatives of Arup and Galway County Council were available throughout the sessions to answer questions and explain the material on display as needed. The aim of the public consultation sessions was to receive feedback and suggestions from the public regarding the proposed solutions. Submissions from the public of suggestions of possible modifications to the options presented, or additional information on further constraints, which may not have been taken into account at Constraints Stage, were welcomed both during the consultation sessions and afterwards, until the 6 March 2015.

Individual meetings with landowners, stakeholders, business owners and residents within the scheme study area were held in the weeks following the formal consultation. These were held at the request of the private individuals and drawings were prepared for each one to show the proximity of their property to the proposed road component options. Feedback from these meetings and submissions received were noted and any further constraints were sent to the full design team including the environmental specialists for inclusion in their assessment.

The main feedback from this public consultation are as follows:

- Greater importance given to the protection of environmental habitats over humans
- Viability of going back to the 2006 GCOB scheme
- Impacts of demolition to homes and businesses
- Impact on the environment, noise and air pollution
- Impact to communities and cultural heritage of many townlands e.g. Menlough, Castlegar, Coolagh, Ragoon, Dangan/Bushypark, Knocknacarra and Bearna
- Impact on recreational amenities such as NUIG Sporting Campus
- Health and safety of primary school children in close proximity to proposed routes
- Impact to commercial businesses and local economy of Galway
- Implementation of improved public transport and smarter mobility

Full details of this consultation and submissions received from the public are contained in Appendix A.1.2.

1.4.3.3 Public Display of Emerging Preferred Route Corridor

Public display sessions were held on 25 and 26 May 2015 on the Emerging Preferred Route Corridor (EPRC) at two locations in Galway, one west of the River Corrib and one east of the River Corrib. Details of the EPRC and the route selection process were on display over the two-day period and were available at the project office until the end of August 2015.

Galway City Council in conjunction with the National Transport Authority (NTA) also consulted with the public over this two-day period on the details of the Integrated Transport Management Programme (ITMP)

(now referred to as the GTS). The display boards for the ITMP were moved to City Hall for unattended viewing following the public display sessions.

The joint presentation and consultation on the overall solution was very worthwhile as it afforded the public an opportunity to see how the component parts of the solution fit together to deliver an overall transport solution.

The general feedback on the road component of the transport solution included commentary on the following issues:

1. Implementation of improved public transport and smarter mobility should be prioritised over a road scheme
2. Greater importance given to the protection of environmental habitats over humans
3. Viability of going back to the N6 Galway City Outer Bypass (2006) route in the Bearna area
4. Impacts of demolition to homes and businesses
5. Impact to communities and cultural heritage of many townlands e.g. Castlegar, Coolagh, Dangan/Bushypark and Bearna

Further design iterations were necessary to minimise and reduce the extent of the impacts on the residential communities; this process formed part of the *Phase 3 Design* work.

Full details of this consultation and submissions received from the public are contained in Appendix A.1.3.

1.4.3.4 Public Display of Design of the proposed road development

A public display to provide an update on the design development of the N6 Galway City Ring Road was held in both Galway County and City Council Offices during normal working hours Monday to Friday from the 14 November to 2 December 2016.

General feedback on the proposed design included queries on the project's planning process and specific requests from landowners for design changes in the vicinity of their property to better mitigate the impact of the proposed road development. This is further detailed in Chapter 4, Alternatives Considered.

1.4.3.5 Continuous public consultation

A project website was created and used to keep the public informed at all stages as the proposed N6 GCRR project progressed.

Over 950 individual property owner meetings, including many home visits, took place between the design team and property owners and such consultation informed the design of the proposed N6 GCRR and the environmental impact assessment. This consultation informed the 2018 EIAR.

All property owners identified as owning lands to be acquired to facilitate the construction of the proposed N6 GCRR received written correspondence in October 2016 with a copy of the design with respect to their property. As part of the final consultation process, written communication was issued to all property owners again in May 2018 with a copy of the final design with respect to their property and an explanation of the next steps.

1.5 Difficulties Encountered during the Study

No significant difficulties were encountered during the preparation of this updated EIAR. Any technical limitations associated with assessment of an environmental aspect are detailed in the relevant chapter of this updated EIAR.

1.6 References

Environmental Protection Agency (2022) Guidelines on the information to be contained in Environmental Impact Assessment Reports.

TII. (2023) Environmental Planning of National Road and Greenway Projects.

European Commission. (2017) Environmental Impact Assessment of Projects – Guidance on the preparation of the Environmental Impact Assessment Report.

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European Commission. (1999) *Guidelines for the Assessment of Indirect and Cumulative Impacts as well as Impact Interactions*.

Transport Infrastructure Ireland. (formerly National Roads Authority) (2008) *Environmental Impact Assessment of National Road Schemes – A Practical Guide*.

Roads Act, 1993, as amended.