ATKINS

Member of the SNC-Lavalin Group

Galway Cycle Network Phase 1

WP-02 Doughiska Road (South): AA Screening

Galway City Council

15/06/2021

Notice

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Document history

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1. Introduction

Galway City Council (GCC) propose to deliver several high-quality cycle routes within the east side of Galway City. The proposed Galway Cycle Network Phase 1 scheme will aim to deliver a minimum level of service in line with the National Cycle Manual (NCM).

Atkins were commissioned to develop routes for the scheme by Galway City Council (GCC) in October 2019 under the National Transport Authority's (NTA) Consultancy Services Framework (2016). The proposed routes were developed in line with current GCC policies included in the Galway Transport Strategy (GTS) (August 2016).

The Galway Cycle Network Phase 1 scheme is proposed to be constructed in a number of Work Packages, which includes Work Package 02 Doughiska Road (South).

Galway City Council appointed Atkins (Ireland) Ltd. to prepare a Screening for Appropriate Assessment report for the following developed route of the proposed scheme; Galway Cycle Network Phase 1 – Work Package 02 Doughiska Road (Route 2B).

1.1. Project details

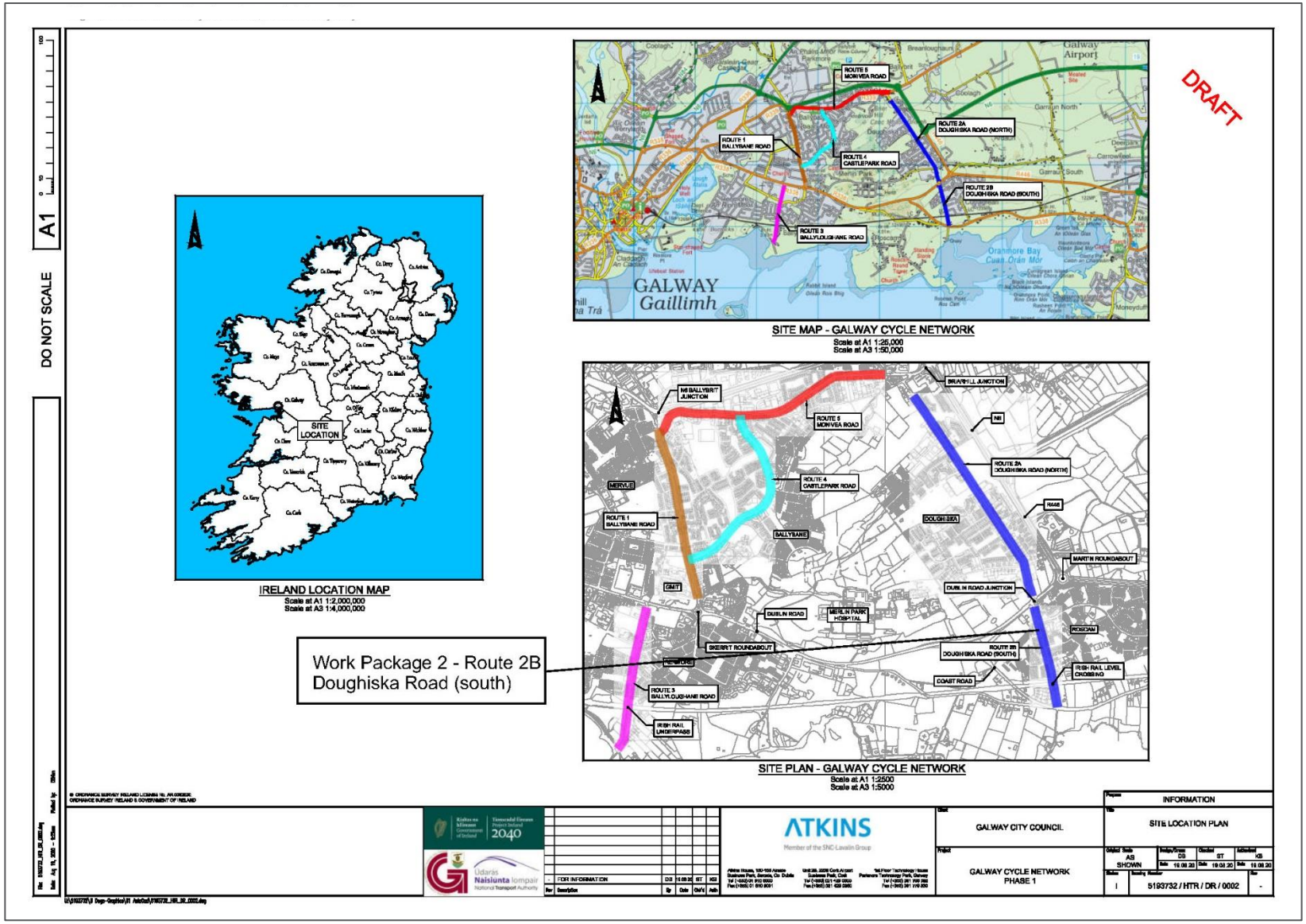
The Galway Cycle Network Phase 1 consists of 5 routes located to the east of Galway City, as shown in Figure 1-1 below. These routes are corridors along existing roads and have been identified within the GTS and within the scope of the scheme as follows:

- Route 1 – Ballybane Road: between Skerrit Roundabout and Monivea Road junction, excluding the N6 and Dublin road junctions.
- **Route 2** (A and **B**) – Doughiska Road (excludes Dublin Road junction):
  - 2A extends between the start of the Sean Bhaile estate (north end of route) to Old Dublin Road (south end of route).
  - **2B extends between Old Dublin Road (north end of route) to Coast Road (south end of route).**
- Route 3 – Ballyloughane Road: full extent excluding the junction with the Dublin Road
- Route 4 – Castlepark Road: full extent
- Route 5 – Monivea Road: full extent between Ballybane Road and terminating at the start of the ghost island junction to the west of the Clayton Hotel entrance.

The purpose of this report is to assess Work Package 02 (WP-02) of the Galway Cycle Network Phase 1 Scheme which is Route 2B – Doughiska Road.

The alignment of Route 2B – Doughiska Road (South), as shown in Blue, is illustrated in Figure 1-1 below.

Figure 1-1 Proposed Galway Cycle Network Phase 1 Routes with Route 2B – Doughiska Road (South), shown in Blue.



1.2. Link Design

The proposed cycle network scheme consists of various cycle path or link types; raised adjacent cycle tracks, raised cycle lanes and shared street facilities.

The link types for Route 2B – Doughiska Road (South) is as follows: -

Route 2B – Doughiska Road (South) (640m)

The proposed cycle scheme along this route is to consist of a raised adjacent cycle lane north of the level crossing and a shared street facility south of the level crossing.

The shared street option includes narrowing the existing carriageway to 6m and the provision of a minimum 2m wide footpath either side of the road. This solution is acceptable in low speed and low traffic volume environments. A typical cross section of this is shown in Figure 1-2.

The raised cycle lane option includes a 50mm high vertical kerb segregation between the carriageway and cycle lane and a 50mm high vertical kerb segregation between the cycle lane and adjacent footpath. A typical cross section of this is shown in Figure 1-3.

Figure 1-2 Shared Street Cross Section.

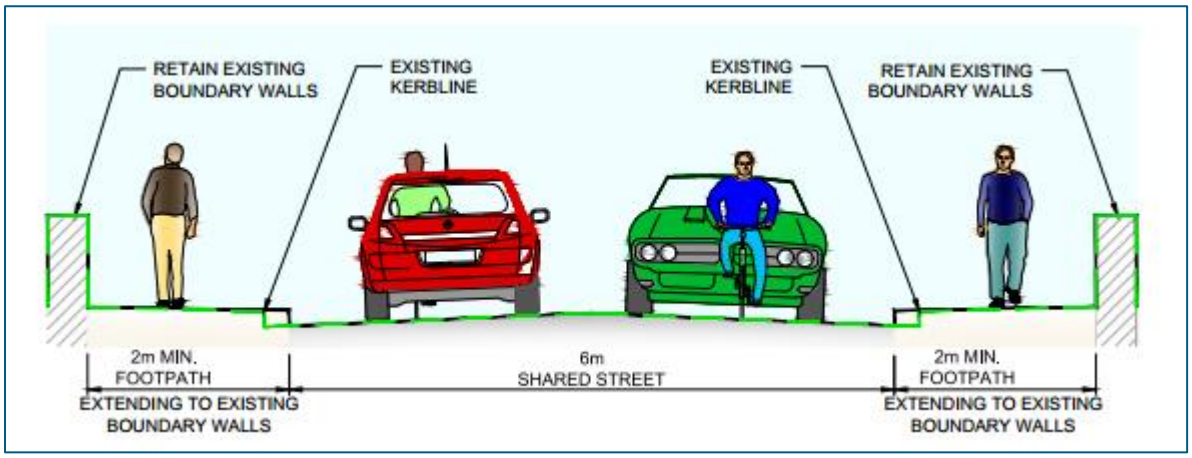
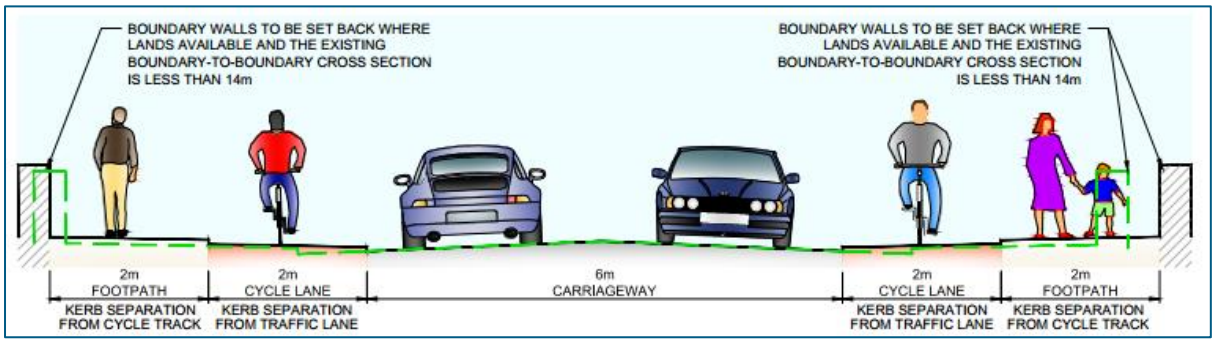


Figure 1-3 Raised Cycle Track Cross Section.



1.3. Construction Details

The construction period for Route 2B – Doughiska Road (South) is estimated to be undertaken within 4 months (dependent on the procurement strategy) and can be summarised as follows: -

- Prior to the commencement of the works, the Contractor will be required to develop a Temporary Traffic Management Plan. To allow the construction phase to proceed as safely and efficiently as possible, temporary traffic management measures will be required where the work will cross or run adjacent to local public roads. The temporary traffic management measures will be designed carefully to enable the works to progress and to manage the safety of workers and the passing public, and to minimise disruption to the general public;

- The Contractor will commence the construction phase by mobilising the construction team on site. This will involve setting up a site compound in an area which will minimise potential impacts to the environment and public, whilst providing a suitable location from a construction logistics and safety viewpoint;

- Works will commence with clearing and removing (off site) all redundant items such as road signage, boundary treatment, and the temporary storage of topsoil. The works will be completed using a combination of operatives using hand tools and also mechanical excavators, dumper trucks and other plant typical to road construction schemes;

- To facilitate the main works, underground utilities which conflict with the main works will be uncovered using mechanical excavators (and hand digging where appropriate) and identified.

- Site compound location – Location to be confirmed at Tender/Construction stage; there could be multiple satellite compounds for each route as each Work Package progresses given the 'spread out' nature of the overall cycle network scheme. While the location of the site compound is not known, the works compound for Route 2B – Doughiska Road (South) is to be located outside the SAC and approved by GCC at Construction Stage prior to acceptance. The Contractor will establish the site area, including site compound, set down area for vehicles, works areas, temporary set-down areas for material removed etc. prior to commencing work on the project. The Contractor will determine an appropriate location for the site compound in agreement with GCC. The compound will provide for parking, welfare facilities, canteen, site offices, storage areas and temporary utilities / services. These areas will be fenced to keep the public out of the work area and secured as appropriate to prevent pollution risk. Once appointed the Contractor will be obliged to take account of the content of this report when deciding on the fixed location of the site compound. The compound will be located away from sensitive areas such as designated conservation areas (such as Galway Bay European sites), ecologically sensitive areas (such as Merlin Park Woodlands), watercourses, hedgerows / treelines which are considered important wildlife corridors, archaeological / architectural features, identified Japanese knotweed locations (*Fallopia japonica*) (outside of the red line boundary) and adjacent private properties. Accordingly, the positioning of the site compound will be chosen so as to have no adverse environmental impacts during the construction phase. The temporary construction compound will be removed upon completion of the construction phase. Such areas are to be reinstated and all construction waste and / or scrapped building materials are to be removed from site on completion of the construction phase. Oil, fuel etc. storage areas are to be decommissioned on completion of the construction phase. Any remaining liquids are to be removed from site and disposed of at an appropriately licenced facility.

- With the utilities safely identified and diverted (if required), the initial construction phase will be ready to commence in that area. This will include removal of existing kerbs, footways and road pavement (where required), and the excavation and removal of soil to proposed design levels along the scheme – which are envisaged to be minor in nature for this scheme and will predominantly involve regrading work. The excavation will be largely undertaken by mechanical excavator, with spoil arisings loaded into HGV tipper trucks for removal off site or reuse on the scheme where testing confirms its suitability;

- Pavement construction will be undertaken by mechanical means, using excavators to lay sub-base, graders, rollers and pavement laying machines for asphalt materials;

- Road sign poles will be erected to carry the scheme road signage. This will include statutory signage, warning signage and information signage. With the poles erected, the signs will be mounted by hand and cleaned to complete the signage installation;

- The finished surface course will be swept using a mechanical road sweeper and immediately followed by the application of road markings, which are likely to be applied using a vehicle mounted road marking machine. The individual Stop, Yield and cycle markings are likely to be laid by hand.

1.3.1. Drainage

All drainage for the cycle routes will utilise the existing road drainage network. Drainage for the routes will be provided using new gullies and existing or new storm drainage pipes where appropriate. The new facilities will generally slope towards the road in order to minimise the need for additional drainage collection measures. In some areas, where this may not be possible, additional channels or measures will be required.

2. Scope of Study

The purpose of this Screening for AA is to determine the likelihood of significant effects, if any, that the proposed project could have on European sites (aka Natura 2000 sites).

2.1. Aims of the Report

The aim of this report is to provide supporting information to assist the competent authority to carry out a Screening for Appropriate Assessment with respect to the proposed project.

2.2. Legislative Context

Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Fauna and Flora, known as the 'Habitats Directive' provides legal protection for habitats and species of European importance. Article 2 of the Directive requires the maintenance or restoration of habitats and species of European Community interest, at a favourable conservation status. Articles 3 – 9 provide the legislative means to protect habitats and species of Community interest through the establishment and conservations of an EU-wide network of sites known as Natura 2000 sites or European sites. European sites are Special Areas of Conservation (SACs) designated under the Habitats Directive and Special Protection Areas (SPAs) designated under the Conservation of Wild Birds Directive (79/409/EEC).

Articles 6(3) and 6(4) of the Habitats Directive set out the decision-making tests for plans or projects that could potentially affect European sites. Article 6(3) establishes the requirement for Appropriate Assessment: -

"*Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives. In the light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public.*"

Article 6 (4) deals with the steps that should be taken when it is determined, as a result of Appropriate Assessment, that a plan or project will adversely affect a European site. Alternative solutions, imperative reasons of overriding public interest (IROPI) and compensatory measures need to be addressed in this case. Article 6(4) states: -

"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.

Where the site concerned hosts a priority natural habitat type and/or a priority species, the only considerations which may be raised are those relating to human health or public safety, to beneficial consequences of primary importance for the environment or, further to an opinion from the Commission, to other imperative reasons of overriding public interest."

2.3. Appropriate Assessment Process

Guidance on the AA process was produced by the European Commission (EC, 2001), which was subsequently used to develop guidance for Ireland by the Department of Environment, Heritage and Local Government in 2009 (DEHLG, 2009). These guidance documents set out a four-staged approach to complete the AA process and outlines the issues and tests at each stage.

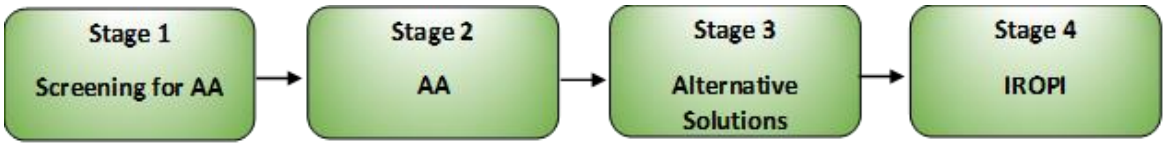


Figure 2-1 Appropriate Assessment Process (Source: DEHLG, 2009).

The stages outlined below are taken from the guidance document Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities (DEHLG, 2009).

2.3.1. Stage 1 – Screening for Appropriate Assessment

Screening is the process that addresses and records the reasoning and conclusions in relation to the first two tests of Article 6(3): -

a. Whether a plan or project is directly connected to or necessary for the management of the site, and
b. Whether a plan or project, alone or in combination with other plans and projects, is likely to have significant effects on a European site in view of its conservation objectives.

If the effects are deemed to be significant, potentially significant, or uncertain, then the process must proceed to Stage 2 (AA).

2.3.2. Stage 2 – Appropriate Assessment

This stage considers whether the plan or project, alone or in combination with other projects or plans, will have adverse effects on the integrity of a European site, and includes any mitigation measures necessary to avoid, reduce or offset negative effects.

The competent authority can only agree to the plan or project after having ascertained that it will not adversely affect the integrity of the site(s) concerned. If this cannot be determined, and where mitigation cannot be achieved, the alternative solutions need to be considered and the process proceeds to Stage 3.

2.3.3. Stage 3 - Alternative Solutions

This stage examines any alternative solutions or options that could enable the plan or project to proceed without adverse effects on the integrity of a European site. The process must return to Stage 2 as alternatives will require appropriate assessment in order to proceed. Demonstrating that all reasonable alternatives have been considered and assessed, and that the least damaging option has been selected, it is necessary to progress to Stage 4.

2.3.4. Stage 4 – IROPI

Stage 4 examines whether there are imperative reasons of overriding public interest for allowing a plan or project that will have adverse effects on the integrity of a European site to proceed in cases where it has been established that no less damaging alternative solution exists. Compensatory measures must be proposed and assessed, of which the Commission must be informed.

The AA process only progresses through each of the four stages for certain plans and projects. For example, for a project not connected with the management of a site and where no likely significant effects on a European site in view of its conservation objectives are identified, the process stops at Stage 1, Screening for AA. Throughout the process the precautionary principle must be applied, which requires that the conservation objectives of European should prevail where there is uncertainty (EC, 2001). This report is for Stage 1 of the process, Screening for Appropriate Assessment whereby this report provides supporting information to the competent authority in their AA decision.

3. Methods

3.1. Guidance documents

The Screening for Appropriate Assessment was prepared with reference and due consideration to the following documents and case law, including but not limited to: -

- Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild flora and fauna (Habitats Directive);
- Statutory Instrument No. 477/2011 — European Communities (Birds and Natural Habitats) Regulations 2011;
- European Commission (2018). Managing Natura 2000 sites: the provisions of Article 6 of the 'Habitats' Directive 92/43/EEC;
- European Commission (2001). Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Articles 6(3) and (4) of the Habitats Directive 92/43/EEC;
- European Commission (2007). Guidance document on Article 6(4) of the 'Habitats Directive' 92/49/EEC; clarification of the concepts of: Alternative solutions, Imperative reasons of overriding public interest, Compensatory Measures, Overall Coherence, Opinion of the Commission;
- Department of the Environment, Heritage and Local Government (2009). Appropriate Assessment of Plans and Projects in Ireland. Guidance for Planning Authorities; and,
- Case C-323/17 People Over Wind & anor. V. Coillte.
- Office of the Planning Regulator (2021), Appropriate Assessment Screening for Development Management, OPR Practice Note PN01.

3.2. Desk Study

A desk study was carried out to collate information available on European sites in the vicinity of the proposed project. These areas were viewed using Google Earth, Google maps[1] and Bing maps[2] (last accessed on 09/04/2021).

The National Parks and Wildlife Service (NPWS) and National Biodiversity Data Centre (NBDC) online databases were reviewed concerning European sites and their features of interest in the vicinity of the proposed project.

The Environmental Protection Agency (EPA) mapping[3] system was used to identify any hydrological connection between the proposed project and European sites.

Locations and boundaries of all European sites within 15km of the proposed projects were identified and reviewed using the NPWS online map viewer. Boundary shapefiles were also downloaded from this site to facilitate the preparation of project graphics.

Desktop information on relevant European sites were reviewed on the NPWS website, including the site synopsis for each SAC/SPA, the conservation objectives, the site boundaries as shown on the

[1] https://www.google.ie/maps
[2] http://www.bing.com/maps/
[3] https://gis.epa.ie/EPAMaps/

NPWS online map viewer, the standard Natura 2000 Data Form for the SAC/SPA which details conditions and threats of the sites, and published information and unpublished reports on the relevant European sites.

Relevant planning information for the surrounding area was reviewed using the planning enquiry systems of Galway City Council. Search criteria were implemented to determine whether such projects or plans would be relevant to this study and this information was used to determine potential cumulative impacts from other plans / projects with the proposed project.

3.3. Site Visit

Site visits were undertaken along the alignment of the route during May 2021. The findings of site surveys have been used to inform this report. Site photographs are presented below.

3.4. Statement of Authority

The Screening for Appropriate Assessment report was prepared by Colin Wilson and Paul O'Donoghue provided peer review and support.

Colin Wilson (Atkins Dublin) has a BSc (Hons) in Environmental Science. He has over 12 years working in the fields of ecology and environmental management. He is a Senior Ecologist with experience in ecological surveying, environmental assessment, on-site ecological supervision and mitigation. He has experience on multiple road projects regarding all elements of surface and groundwater management, monitoring, sampling and associated reporting. Colin also has a broad range of experience in invasive species management, biosecurity and control. Colin has prepared AA screening reports, Natura Impact Statements and has also been involved in the development of Environmental Operating Plans and Construction Environmental Management Plans for a number of national infrastructure projects.

Paul O'Donoghue has a BSc (Zoology), MSc (Behavioural Ecology) and a PhD in avian ecology and genetics. Paul is a chartered member of the Society for the Environment (CEnv) and a full member of the Chartered Institute of Ecology and Environmental Management (MCIEEM). Paul has over 18 years' experience in ecology; including extensive experience in the preparation of Habitat Directive Assessments / Natura Impact Statements (i.e. Appropriate Assessment under Article 6(3) of the EU Habitats Directive). Paul carried out the technical review of this report.

4. Existing Environment

The proposed cycle route is located entirely within the existing footprint of the road network to the east of Galway City Centre. These lands have historically been sub-urban in nature and have continued to expand as urban development areas within recent times. Route 2B Doughiska Road (South) of the cycle network is aligned entirely along roadways and associated pathways and does not encroach into any protected habitats.

The proposed project is within the Water Framework Directive (WFD) Carrowmoneash [Oranmore] subcatchment (SC_010). All surface hydrological features within the vicinity of the project are assumed to follow topography and flow in a general southern direction towards the coast. A review of geological features[6] identified a number of karst formations within the wider area, however, none are within or adjacent to the alignment of the route.

The project site was reviewed for the presence of watercourses or surface water features. A review of EPA datasets[4] did not identify any watercourses within the project site.

Merlin Park Woodlands covers a large area ca. 500m west of Doughiska Road and this park contains a wide range of habitats including native oak-ask-hazel woodland, mixed broadleaf woodland, conifer woodland, limestone pavement, wet grassland and scrub[6]. Lesser Horseshoe bats (*Rhinolophus hipposideros*) have been recorded within Merlin Park. The proposed Route 2B Doughiska Road does not intersect with this area of urban woodland and as such impacts on the habitats found within the woodlands are not anticipated. There will be no significant changes to street lighting levels along the proposed route nor within the vicinity of Merlin Park (some light poles positions may be moved within existing footpaths to accommodate the cycle path) and as such no significant impact on foraging routes of bats is anticipated.

A review of Annex I habitat within the study area[5] details Limestone pavements [8240], Lowland hay meadows [6510] and Semi-natural dry grasslands [6210] are found to the east of the cycle network routes (Ardaun area). Route 2B Doughiska Road is remote from these annexed habitats, and there is no direct or indirect connectivity, and as such impacts on these protected sites are not anticipated.

The proposed project site was surveyed for invasive plant species listed on the third schedule of the EC (Birds and Natural Habitats) Regulations 2011 S.I. No. 477/ 2011. Species surveyed for included Japanese knotweed (Fallopia japonica) and associated hybrids. Surveys were undertaken during May 2021 which is within the seasonally appropriate window to assess the project site for the presence of invasive plant species. No evidence of third schedule invasive plant species were recorded within the extents of the project site.

Plates 4-1 to 4-4 below depict the site of the proposed Doughiska Road (South) cycleway.

[4] https://gis.epa.ie/EPAMaps/

[5] ARUP (2015) Annex I Habitat Mapping. N6 Galway City Transport Project.

Plate 4-1 Doughiska Road; southern end of route.

Plate 4-2 Doughiska Road / Railway junction.

Plate 4-3 Doughiska Road; mid-section of route.

Plate 4-4 Doughiska Road; northern end of route.

5. Appropriate Assessment Screening

5.1. Connectivity of Works Area to European Sites

The '*zone of influence'* (ZoI) for a project is the area over which ecological features may be subject to significant effects as a result of the proposed project and associated activities. This is likely to extend beyond the project site, for example where there are ecological or hydrological links beyond the site boundaries. The zone of influence will vary for different ecological features depending on their sensitivity to an environmental change (CIEEM, 2019).

A distance of 15km is currently recommended, in the case of plans or projects, as a potential zone of influence and this distance is derived from UK guidance (Scott Wilson et al, 2006). For some projects, the distance could be much less than 15km, and in some cases less than 100m, but National Parks and Wildlife Service guidance[6] advises that this must be evaluated on a case-by-case basis with reference to the nature, size and location of the project, the sensitivities of the ecological receptors, and the potential for in-combination effects.

Thus, given the nature, scale and extent of the proposed project, the potential zone of influence will consider European sites with regard to the location of a European site, the QIs of the site and their potential mobility outside that European site, the Cause-Pathway-Effect model and potential environment effects of the proposed project.

The proposed project site does not lie within any European site. Route 2B Doughiska Road (South), at its southern extent, terminates on the Coast Road ca. 180m from the boundary of Galway Bay Complex SAC and Inner Galway Bay SPA.

There are 12 no. European sites within the potential zone of influence of the project; 8 no. SACs and 4 no. SPAs.

Table 5-1 details the European sites that are within the potential ZoI of the proposed project, which lists their associated qualifying interests and specifies if the European site is within the ZoI of the proposed project or not.

Figures 5-1 and 5-2 illustrate the locations of the European sites within the potential ZoI of the proposed project.

[6] DoEHLG (2009*). Appropriate Assessment of Plans and Projects in Ireland. Guidance for Planning Authorities*. Department of Environment, Heritage and Local Government, Dublin, Ireland.

Table 5-1 European sites within potential Zone of Influence of the proposed project.

Site Name and Code	Approximate distance from project	Features of Interest	Within the ZoI
Galway Bay Complex SAC (000268)	180m	• Mudflats and sandflats not covered by seawater at low tide [1140] • Coastal lagoons [1150] • Large shallow inlets and bays [1160] • Reefs [1170] • Perennial vegetation of stony banks [1220] • Vegetated sea cliffs of the Atlantic and Baltic coasts [1230] • Salicornia and other annuals colonising mud and sand [1310] • Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) [1330] • Mediterranean salt meadows (*Juncetalia maritimi*) [1410] • Turloughs [3180] • *Juniperus communis* formations on heaths or calcareous grasslands [5130] • Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco-Brometalia*) (* important orchid sites) [6210] • Calcareous fens with *Cladium mariscus* and species of the Caricion davallianae [7210] • Alkaline fens [7230] • Limestone pavements [8240] • *Lutra lutra* (Otter) [1355] • *Phoca vitulina* (Harbour Seal) [1365]	Yes The proposed project starts / ends on the coastline of Galway Bay and therefore is adjacent to the Galway Bay Complex SAC. This site is discussed further below.
Lough Corrib SAC (000297)	5.5km	• Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*) [3110] • Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or Isoeto-Nanojuncetea [3130] • Hard oligo-mesotrophic waters with benthic vegetation of *Chara* spp. [3140] • Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation [3260] • Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco-Brometalia*) (* important orchid sites) [6210]	No There is no direct overlap between the proposed works and Lough Corrib SAC nor is there any hydrological link between the project site and this SAC. The qualifying interest species; Lesser horseshoe bats are highly mobile and have the potential to range outside of the SAC site extents. Impacts of bat species associated with the SAC are not anticipated as the cycle paths are aligned along the existing road network and there will be no changes to lighting levels along these urban roadways.

Site Name and Code	Approximate distance from project	Features of Interest	Within the ZoI
		• Molinia meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*) [6410] • Active raised bogs [7110] • Degraded raised bogs still capable of natural regeneration [7120] • Depressions on peat substrates of the Rhynchosporion [7150] • Calcareous fens with *Cladium mariscus* and species of the Caricion davallianae [7210] • Petrifying springs with tufa formation (*Cratoneurion*) [7220] • Alkaline fens [7230] • Limestone pavements [8240] • Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles [91A0] • Bog woodland [91D0] • *Margaritifera margaritifera* (Freshwater Pearl Mussel) [1029] • *Austropotamobius pallipes* (White-clawed Crayfish) [1092] • *Petromyzon marinus* (Sea Lamprey) [1095] • *Lampetra planeri* (Brook Lamprey) [1096] • *Salmo salar* (Salmon) [1106] • *Rhinolophus hipposideros* (Lesser Horseshoe Bat) [1303] • *Lutra lutra* (Otter) [1355] • *Drepanocladus vernicosus* (Slender Green Feather-moss) [1393] • *Najas flexilis* (Slender Naiad) [1833]	The location, scale and duration of proposed project is such that they will not contribute to direct, indirect or in-combination impacts on habitats and species for which the SAC has been designated and do not have the potential to affect the conservation objectives of these habitats and species. This site is not considered further.
Rahasane Turlough SAC (000322)	12.5km	• Turloughs [3180]	No There is no direct overlap between the proposed works and Rahasane Turlough SAC nor is there any hydrological or hydrogeological link between the project site and this SAC. The location, scale and duration of proposed project is such that they will not contribute to direct, indirect or in-combination impacts on habitats for which the SAC has been designated and do not have the potential to affect the conservation objectives of these habitats. This site is not considered further.

Site Name and Code	Approximate distance from project	Features of Interest	Within the ZoI
Lough Fingall Complex SAC (000606)	10.7km	• Turloughs [3180] • Alpine and Boreal heaths [4060] • *Juniperus communis* formations on heaths or calcareous grasslands [5130] • Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco-Brometalia*) (* important orchid sites) [6210] • Calcareous fens with *Cladium mariscus* and species of the *Caricion davallianae* [7210] • Limestone pavements [8240] • *Rhinolophus hipposideros* (Lesser Horseshoe Bat) [1303]	No There is no direct overlap between the proposed works and Lough Fingall Complex SAC nor is there any hydrological or hydrogeological link between the project site and this SAC. The location, scale and duration of proposed project is such that they will not contribute to direct, indirect or in-combination impacts on habitats and species for which the SAC has been designated and do not have the potential to affect the conservation objectives of these habitats and species. This site is not considered further.
Castletaylor Complex SAC (000242)	13.1km	• Turloughs [3180] • Alpine and Boreal heaths [4060] • Juniperus communis formations on heaths or calcareous grasslands [5130] • Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco-Brometalia*) (* important orchid sites) [6210] • Limestone pavements [8240]	No There is no direct overlap between the proposed works and Castletaylor Complex SAC nor is there any hydrological or hydrogeological link between the project site and this SAC. The location, scale and duration of proposed project is such that they will not contribute to direct, indirect or in-combination impacts on habitats for which the SAC has been designated and do not have the potential to affect the conservation objectives of these habitats. This site is not considered further.
Kilternan Turlough SAC (001285)	13km	• Turloughs [3180]	No There is no direct overlap between the proposed works and Kilternan Turlough SAC nor is there any hydrological or hydrogeological link between the project site and this SAC. The location, scale and duration of proposed project is such that they will not contribute to direct, indirect or in-combination impacts on habitats for which the SAC has been designated and do not have the potential to affect the conservation objectives of these habitats. This site is not considered further.
Ardrahan Grassland SAC (002244)	14.1km	• Alpine and Boreal heaths [4060] • *Juniperus communis* formations on heaths or calcareous grasslands [5130]	No There is no direct overlap between the proposed works and Ardrahan Grassland SAC nor is there any hydrological or hydrogeological link between the project site and this SAC.

Site Name and Code	Approximate distance from project	Features of Interest	Within the ZoI
		• Limestone pavements [8240]	The location, scale and duration of proposed project is such that they will not contribute to direct, indirect or in-combination impacts on habitats for which the SAC has been designated and do not have the potential to affect the conservation objectives of these habitats. This site is not considered further.
East Burren Complex SAC (1926)	14.8km	• Hard oligo-mesotrophic waters with benthic vegetation of *Chara* spp. [3140] • Turloughs [3180] • Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation [3260] • Alpine and Boreal heaths [4060] • *Juniperus communis* formations on heaths or calcareous grasslands [5130] • *Calaminarian* grasslands of the *Violetalia calaminariae* [6130] • Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco-Brometalia*) (* important orchid sites) [6210] • Lowland hay meadows (*Alopecurus pratensis, Sanguisorba officinalis*) [6510] • Calcareous fens with *Cladium mariscus* and species of the *Caricion davallianae* [7210] • Petrifying springs with tufa formation (*Cratoneurion*) [7220] • Alkaline fens [7230] • Limestone pavements [8240] • Caves not open to the public [8310] • Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion, Alnion incanae, Salicion albae*) [91E0] • *Euphydryas aurinia* (Marsh Fritillary) [1065] • *Rhinolophus hipposideros* (Lesser Horseshoe Bat) [1303] • *Lutra lutra* (Otter) [1355]	No There is no direct overlap between the proposed works and East Burren Complex SAC nor is there any hydrological or hydrogeological link between the project site and this SAC. The location, scale and duration of proposed project is such that they will not contribute to direct, indirect or in-combination impacts on habitats for which the SAC has been designated and do not have the potential to affect the conservation objectives of these habitats. This site is not considered further.

Site Name and Code	Approximate distance from project	Features of Interest	Within the ZoI
Inner Galway Bay SPA (004031)	180m	• Great Northern Diver (*Gavia immer*) [A003] • Cormorant (*Phalacrocorax carbo*) [A017] • Grey Heron (*Ardea cinerea*) [A028] • Light-bellied Brent Goose (*Branta bernicla hrota*) [A046] • Wigeon (*Anas penelope*) [A050] • Teal (*Anas crecca*) [A052] • Shoveler (*Anas clypeata*) [A056] • Red-breasted Merganser (*Mergus serrator*) [A069] • Ringed Plover (*Charadrius hiaticula*) [A137] • Golden Plover (*Pluvialis apricaria*) [A140] • Lapwing (*Vanellus vanellus*) [A142] • Dunlin (*Calidris alpina*) [A149] • Bar-tailed Godwit (*Limosa lapponica*) [A157] • Curlew (*Numenius arquata*) [A160] • Redshank (*Tringa totanus*) [A162] • Turnstone (*Arenaria interpres*) [A169] • Black-headed Gull (*Chroicocephalus ridibundus*) [A179] • Common Gull (*Larus canus*) [A182] • Sandwich Tern (*Sterna sandvicensis*) [A191] • Common Tern (*Sterna hirundo*) [A193] • Wetland and Waterbirds [A999]	Yes. The Inner Galway Bay SPA is designated for a range of wintering waterbirds and wildfowl that frequent wetland habitats. This SPA is located immediately adjacent to the termination point of Route 3 Ballyloughane Road and therefore the bird species for which this site has been designated could be negatively impacted by the proposed project. Potential impacts on this European site will be discussed below.
Cregganna Marsh SPA (004142)	3.4km	• Greenland White-fronted Goose (*Anser albifrons flavirostris*) [A395]	No. The Cregganna Marsh SPA is designated for Greenland White-fronted Goose. This species can feed within arable and grassland fields in the wider landscape (i.e. away from the SPA), however, the proposed project is aligned within the footprint of the existing road network and associated verges (and occasional private garden) and as such there are no suitable habitats that would provide for suitable field foraging sites for geese. This site is not considered further.

Site Name and Code	Approximate distance from project	Features of Interest	Within the ZoI
Rahasane Turlough SPA (004089)	12.7km	• Whooper Swan (*Cygnus cygnus*) [A038] • Wigeon (*Anas penelope*) [A050] • Golden Plover (*Pluvialis apricaria*) [A140] • Black-tailed Godwit (*Limosa limosa*) [A156] • Greenland White-fronted Goose (*Anser albifrons flavirostris*) [A395] • Wetland and Waterbirds [A999]	No. Rahasane Turlough SPA is designated for a range of wintering waterbirds and wildfowl that frequent estuarine and coastal habitats. There is no direct overlap between the proposed project and the SPA. There is no connectivity in the form of hedgerows, treelines or watercourses between the project site and this SPA. The works area is sufficiently remote that there is no risk of disturbance to waders and wildfowl using the SPA. The location, scale and operation of the proposed project is such that they will not contribute to direct, indirect or in-combination impacts on the wintering waterbird species for which the SPA has been designated and does not have the potential to affect the conservation objectives of this species. This site is not considered further.
Lough Corrib SPA (004042)	7.3km	• Gadwall (*Anas strepera*) [A051] • Shoveler (*Anas clypeata*) [A056] • Pochard (*Aythya ferina*) [A059] • Tufted Duck (*Aythya fuligula*) [A061] • Common Scoter (*Melanitta nigra*) [A065] • Hen Harrier (*Circus cyaneus*) [A082] • Coot (*Fulica atra*) [A125] • Golden Plover (*Pluvialis apricaria*) [A140] • Black-headed Gull (*Chroicocephalus ridibundus*) [A179] • Common Gull (*Larus canus*) [A182] • Common Tern (*Sterna hirundo*) [A193] • Arctic Tern (*Sterna paradisaea*) [A194] • Greenland White-fronted Goose (*Anser albifrons flavirostris*) [A395] • Wetland and Waterbirds [A999]	No. Lough Corrib SPA is designated for a range of wintering waterbirds and wildfowl that frequent estuarine and coastal habitats. There is no direct overlap between the proposed project and the SPA. There is no connectivity in the form of hedgerows, treelines or watercourses between the project site and this SPA. The works area is sufficiently remote that there is no risk of disturbance to waders and wildfowl using the SPA. The location, scale and operation of the proposed project is such that they will not contribute to direct, indirect or in-combination impacts on the wintering waterbird species for which the SPA has been designated and does not have the potential to affect the conservation objectives of this species. This site is not considered further.

Figure 5-1 SACs within potential zone of influence of the project.

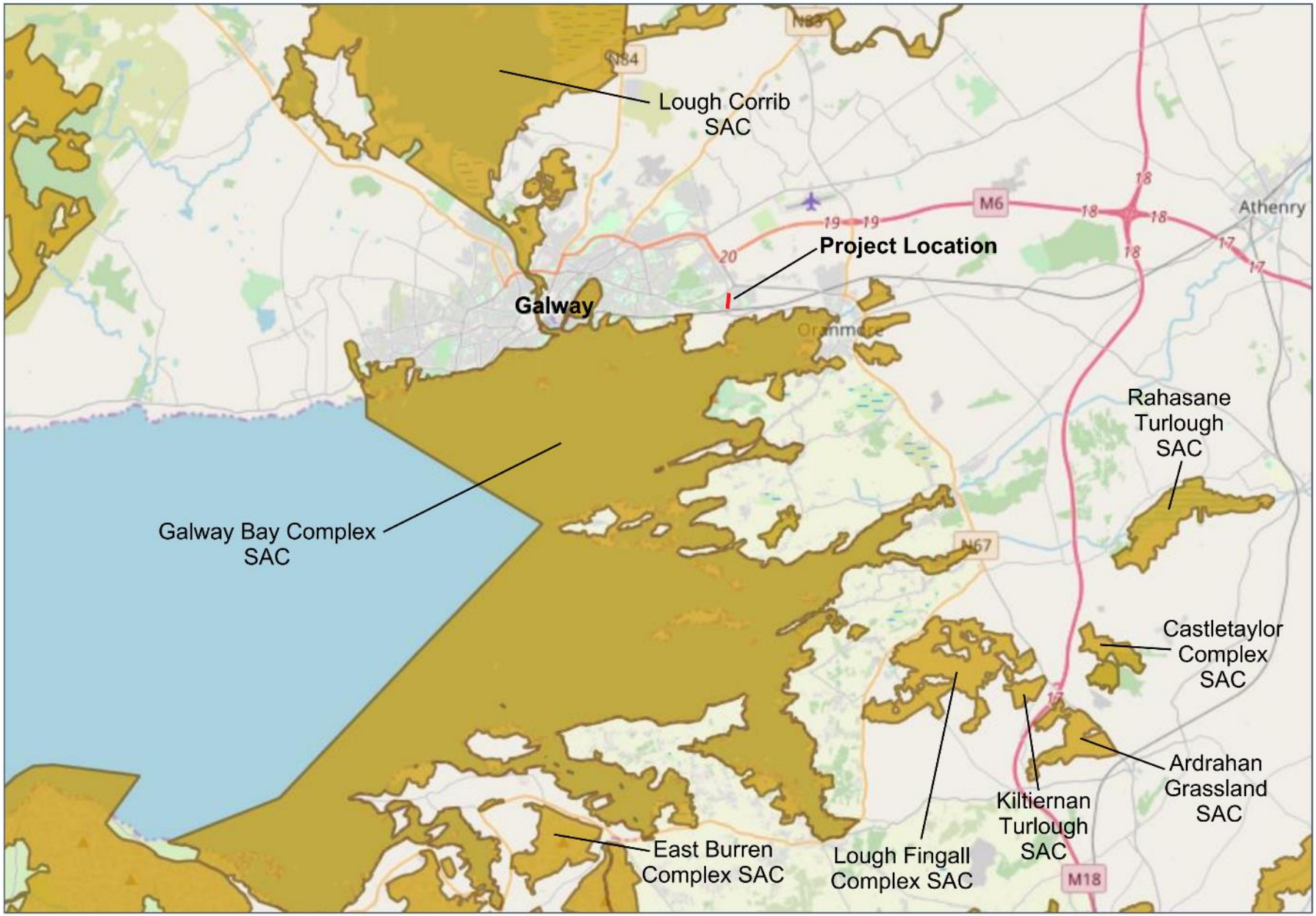
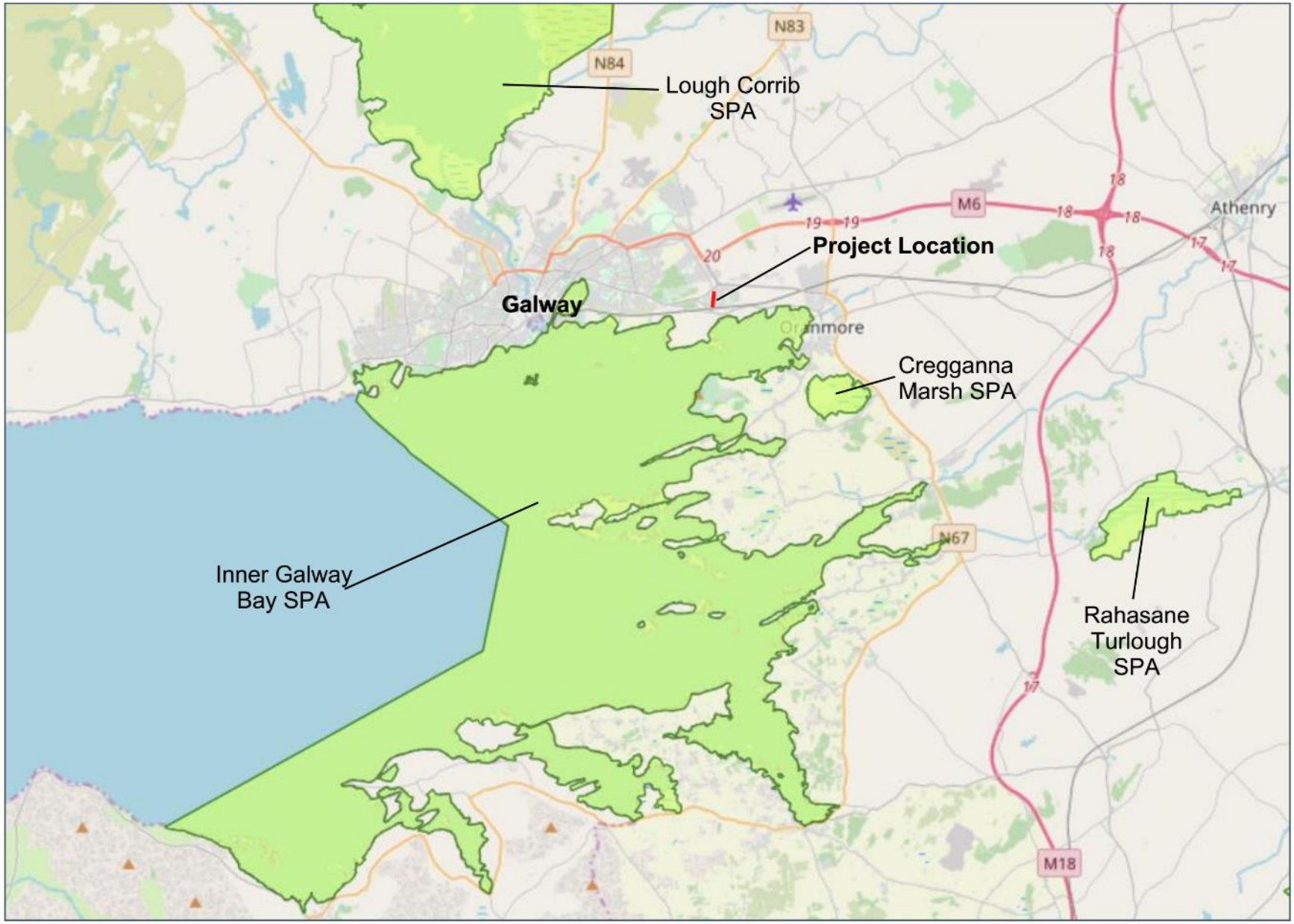


Figure 5-2 SPAs within potential zone of influence of the project.



5.1.1. Brief Description of Galway Bay Complex SAC

A synopsis of the SAC, as detailed by NPWS, is as follows [7]: -

> "*The Galway Bay Complex is a very large, marine-dominated, site situated on the west coast of Ireland. The inner part of the south bay is protected from exposure to Atlantic swells by the Aran Islands and Black Head. Subsidiary bays and inlets (e.g. Poulnaclough, Aughinish and Kinvara Bays) add texture to the patterns of water movement and sediment deposition, which lends variety to the marine habitats and communities. The terraced Carboniferous (Visean) limestone platform of the Burren sweeps down to the shore and into the sublittoral. West of Galway city, the bedrock geology is granite. The long shoreline is noted for its diversity, with complex mixtures of bedrock shore, shingle beach, sandy beach and fringing salt marshes. Other habitats which occur in small amounts include lagoon, fen, turlough, dry grassland, wet grassland and deciduous woodland.*
>
> *The site has very important and good quality examples of large shallow inlets and bays, intertidal mud and sandflats, and reefs. The area has the country's only recorded example of the littoral community characterized by* Fucus serratus *with sponges, ascidians and red seaweeds on tide-swept lower eulittoral mixed substrata. Sublittorally, the area has Ireland's only reported piddock bed, an extensive maerl bed of* Phymatolithon calcareum*, an oyster bed, and seagrass beds. A host of rare marine organisms occur, including the sea urchin* Paracentrotus lividus*, the sponge* Mycale contarenii*, the red algae* Phyllophora sicula *and* Rhodymenia delicatula*. Lagoons are particularly well represented and varied in type, size and salinity. Of especial importance are the rare karstic rock lagoons, of which the site holds all but one of the examples known from the mainland of Ireland. Good quality salt marshes of both Atlantic and Mediterranean types are well represented and occur along with perennial vegetation of stony banks. A very good, though limited, example of calcareous grassland rich in orchids occurs, and there are examples of alkaline fen and* Juniperus communis *scrub of moderate quality. Two Red Data Book stoneworts occur,* Chara canescens *and* Lamprothamnium papulosum*, and also two Red Data Book vascular plants* - Crambe maritima *and* Hyoscyamus niger*. The site has one of the largest populations of* Phoca vitulina *in the country and provides optimum habitat for* Lutra*. Galway Bay is a very important ornithological site, with an internationally important wintering population of* Branta bernicla hrota *and regular nationally important populations of a further 16 species, including* Gavia immer, Gavia arctica, Pluvialis apricaria and Limosa lapponica*. Breeding birds of note are* Phalacrocorax carbo, Sterna sandvicensis and Sterna hirundo."

5.1.1.1. Conservation Objectives

The Habitats Directive defines when the conservation status of the listed habitats and species is considered as favourable. The definitions it uses for this are specific to the Directive. In summary, they require that the range and areas of the listed habitats, and the range and population of the listed species, should be at least maintained at their status at the time of designation. Site-specific conservation objectives aim to define favourable conservation conditions for a particular habitat or species at that site.

Article (1) of the Habitats Directive (92/43/EEC) describes favourable conservation status for habitats and species as follows.

Favourable conservation status of a habitat is achieved when: -

- Its natural range, and area it covers within that range, are stable or increasing, and

[7] https://www.npws.ie/sites/default/files/protected-sites/natura2000/NF000268.pdf

- The specific structure and functions which are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future, and

- The conservation status of its typical species is favourable.

The favourable conservation status of a species is achieved when: -

- Population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats, and

- The natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future, and

- There is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

The conservation objectives for Galway Bay Complex SAC, to maintain the favourable conservation for each of the qualifying interests of the site, were published by NPWS (2013) Version 1.0; 16/04/2013.

5.1.2. Brief Description of Inner Galway Bay SPA

A synopsis of the SPA, as detailed by NPWS, is as follows[8]: -

> "*Galway Bay SPA is a very large, marine-dominated, site situated on the west coast of Ireland. The inner bay is protected from exposure to Atlantic swells by the Aran Islands and Black Head. Subsidiary bays and inlets (e.g. Poulnaclough, Aughinish and Kinvarra Bays) add texture to the patterns of water movement and sediment deposition, which lends variety to the marine habitats and communities. The terraced Carboniferous (Viséan) limestone platform of the Burren sweeps down to the shore and into the sublittoral. The long shoreline is noted for its diversity, with complex mixtures of bedrock shore, shingle beach, sandy beach and fringing salt marshes. Intertidal sand and mud flats occur around much of the shoreline, with the largest areas being found on the sheltered eastern coast between Oranmore Bay and Kinvarra Bay. Seagrass beds lie off Finavarra Point. A number of small islands composed of glacial deposits are included, such as Deer Island, along with some rocky islets.*
>
> *Galway Bay is one of the most important ornithological sites in the western region. It supports internationally important wintering populations of* Gavia immer *and* Branta bernicla hrota *and regularly occurring nationally important populations of an additional 16 species, most notably* Mergus serrator *(6.7% of national total),* Charadrius hiaticula *(3.3% of total),* Anas clypeata *(2.9% of total) and* Limosa lapponica *(2.5% of total). It supports the largest and the most regular population of* Gavia arctica *in the country. The bay is an important wintering site for gulls and is of national significance for at least* Larus canus. *Breeding birds of note are* Phalacrocorax carbo, Sterna sandvicensis *and* Sterna hirundo. *The site provides both feeding and roost sites for most of the species, though some birds commute to areas outside of the site. The birds of Galway Bay have been monitored annually since 1980/81. The site has one of the largest populations of* Phoca vitulina *in the country."*

5.1.2.1. Conservation Objectives

The Conservation Objectives for Inner Galway Bay SPA are to maintain the favourable conservation condition of the bird species as Special Conservation Interests for this SPA.

[8] https://www.npws.ie/sites/default/files/protected-sites/natura2000/NF004031.pdf

The favourable conservation status of a species is achieved when: -

- Population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats,
- The natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future, and
- There is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

The conservation objectives for non-breeding birds of Inner Galway Bay SPA are summarised in Table 5-3 below.

Table 5-3 Conservation Objectives for Inner Galway Bay SPA.

Objective 1: To maintain the favourable conservation condition of the non-breeding waterbird Special Conservation Interest species listed for the SPA, which is defined by the following list of attributes and targets:			
Parameter	**Attribute**	**Measure**	**Target**
Population	Population Trend	Percentage change as per population trend assessment using waterbird count data collected through the Irish Wetland Bird Survey and other surveys	The long-term population trend should be stable or increasing.
Range	Distribution	Range, timing or intensity of use of areas used by waterbirds, as determined by regular low tide and other waterbird surveys	There should be no significant decrease in the range, timing or intensity of use of areas by the waterbird species of Special Conservation Interest other than that occurring from natural patterns of variation.
Objective 2: To maintain the favourable conservation condition of the wetland habitat at the SPA as a resource for the regularly-occurring migratory waterbirds that utilise it, which is defined by the following list of attributes and targets:			
Parameter	**Attribute**	**Measure**	**Target**
Area	Wetland habitat	Area (Ha)	The permanent area occupied by the wetland habitat should be stable and not significantly less than the area of 13,267 Ha, other than that occurring from natural patterns of variation.

5.2. Likelihood of Potential Impacts on European Sites

The available information on the European Sites within the potential ZoI of the proposed project was reviewed to establish whether or not the proposed Galway Cycle Network project is likely to have a significant effect on the conservation objectives of these SACs/SPAs. The likelihood of impacts on the features of interest of European Sites identified in this report is based on information collated from the desk study, site plans and other available existing information.

The likelihood of impacts occurring are established in light of the type and scale of the proposed works, the location of the proposed works with respect to European sites and the features of interest and conservation objectives of the European sites.

This screening report is prepared following the Cause – Pathway – Effect model. The potential impacts are summarised into the following categories for screening purposes.

- Direct impacts refer to habitat loss or fragmentation arising from land-take requirements for development or agricultural purposes. Direct impacts can be as a result of a change in land use or management, such as the removal of agricultural practices that prevent scrub encroachment.

- Indirect and secondary impacts do not have a straight-line route between cause and effect. It is potentially more challenging to ensure that all the possible indirect impacts of the plan/project – in combination with other plans and projects - have been established. These can arise, for example, when a development alters the hydrology of a catchment area, which in turn affects the movement of groundwater to a site and the qualifying interests that rely on the maintenance of water levels. Deterioration in water quality can occur as an indirect consequence of development, which in turn changes the aquatic environment and reduces its capacity to support certain plants and animals. The introduction of invasive species can also be defined as an indirect impact. Disturbance to fauna can arise directly through the loss of habitat (e.g. displacement of roosting bats) or indirectly through noise, vibration and increased activity associated with construction and operation.

5.3. Identification of Potential Impacts on European Sites

The Galway Bay Complex SAC covers a significant geographical area and the qualifying habitats and species for which they are designated are also spread widely throughout. An Appropriate Assessment screening, under Article 6(3) of the Habitats Directive, should be appropriate to assess the potential level of impact, the likely receptors, and in the case of water quality, connectivity between the site and the SAC. Therefore, designated SAC features which have no potential of being impacted by the proposed project, either because they do not occur within the area likely to be affected or because of distance from the works areas of the proposed project, are listed as such below. Table 5-2 below presents an overview of the potential for impacts on the habitats and species listed as features of interest within the SAC.

Inner Galway Bay SPA is designated for a range of wintering waterbirds and wildfowl that frequent estuarine and coastal habitats. There is no overlap of the proposed cycle route with the Inner Galway Bay SPA site and as such direct impacts on the foraging or roosting sites within the SPA are not anticipated. The proposed footprint of the cycle network does not accommodate suitable foraging habitats, such as open waters, sand flats or mudflats, which the majority of the SPA bird species forage within.

Certain bird species associated with the SPA, such as Light-bellied Brent Geese and Lapwing, do on occasion feed in arable and grassland fields within the wider landscape; however the proposed project is located within the existing footprint of the road network in Galway City and as such there are no greenfield sites within the project site suitable for field foraging bird species. Bird species; Common tern and Sandwich tern have nesting colonies within Galway Bay which are remote from the alignment of the routes and as such no impacts on SPA nesting birds is anticipated.

Where the route of the proposed project comes in closest proximity to Inner Galway Bay SPA is at the southern extents of Route 2B Doughiska Road (South) (Figure 1-1). Route 2B Doughiska Road (South) terminates at the R338 Coast Road and at this point is ca. 180m from the coastline and as such impacts on bird species foraging or roosting within the SPA site extents are not anticipated during either the construction or operation of Route 2B.

There is the potential for Qualifying Interest (QI) bird species associated with Galway Bay SPA to use the fields located between the southern end of the project site and the bay's shoreline for foraging or roosting and as such construction activities could result in disturbance to QI species in this area. Project works in this area are estimated to last 2-3 weeks and the heavily utilised and busy R338 Coast Road separates the southern extents of the project site from the fields systems bordering Galway Bay, as such significant disturbance related impacts on SPA waterbird species are considered unlikely.

It is considered that the location, scale and operation of the proposed cycle route is such that they will not contribute to impacts on bird species for which the Inner Galway Bay SPA has been designated.

Galway Bay Complex SAC is designated for the protection of a range of estuarine and coastal habitats such as intertidal mudflats, sand flats, coastal lagoons, inlets, bays, reefs and areas where halophytic vegetation has colonised the mud, sand (salt meadows and *Salicornia*). The SAC is also designated for the protection of terrestrial habitats which include limestone pavements, turloughs, grasslands and wetlands. There are also 2 no. of protected species detailed as the qualifying interest of the SAC; Otter and Harbour Seal.

The NPWS Conservation Objective documentation for the SAC was reviewed to determine the location of qualifying interest habitats, such as Perennial vegetation on stony banks [1220], within the vicinity of Ballyloughane Strand and site documentation does not record any qualifying interest habitats within the SAC near Doughiska Road/Coast Road junction.

The proposed cycleway route alignment actively avoids intersecting with Galway Bay Complex SAC. The alignment of the proposed cycleway route does not encroach into any of the qualifying interest habitats associated with the SAC nor does it encroach on habitats that would be utilised by otters or seals. As such there will be no direct impacts, such as loss of SAC habitat, as a result of the construction of the cycleway on the qualifying interest habitats and species of the SAC.

The construction of the cycle route will result in an increase in numbers of cyclists trafficking the coastal area of Galway Bay, this increase in numbers of people in the general area of the project site is considered unlikely to have any significant impact on the SAC as the route is remote from any qualifying interest habitats.

Surface water drainage from the hard standing areas of the cycleway will utilise the existing road drainage network. The alignment of the cycleway is along existing roadways and footpaths (with occasional land take of roadside grass verges) and as such significant impacts on surface water drainage flows are not anticipated from the construction of the cycle route. Similarly, no significant pollution related impacts are anticipated on the road drainage system from cycle (or pedestrian) usage of the cycle route. The proposed project is located within the Clarinbridge groundwater body (EPA Code: IE_WE_G_0008). However, the excavations associated with the construction of the cycleway will be relatively shallow (ca. <500mm) and therefore no significant impacts on groundwater are likely. As such there are no indirect impacts through hydrological or hydrogeological pathways anticipated, either during the construction or operation of the cycleway route, on Galway Bay Complex SAC.

The construction of the route will involve shallow excavations (ca <500mm) to facilitate path formation and as such significant impacts on local groundwater are not anticipated, therefore impacts on Galway Bay through hydrogeological pathways is precluded.

Given the nature, scale and location of the proposed cycleway route it is considered that the construction and operation of the proposed project will not have a likely significant effect on the qualifying interest habitats and species of Galway Bay Complex SAC and Inner Galway Bay SPA.

Table 5-2 Screening of SAC qualifying habitats for Galway Bay Complex SAC.

Habitat / Species	Comment	Screening Statement
Galway Bay Complex SAC		
• Mudflats and sandflats not covered by seawater at low tide [1140] • Coastal lagoons [1150] • Perennial vegetation of stony banks [1220] • Salicornia and other annuals colonising mud and sand [1310] • Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) [1330] • Mediterranean salt meadows (*Juncetalia maritimi*) [1410] • Large shallow inlets and bays [1160] • Reefs [1170] • Vegetated sea cliffs of the Atlantic and Baltic coasts [1230]	The alignment of the proposed cycle route is dominated by hard standing areas such as roadways and pathways. Coastal and Estuarine habitats do not occur with the proposed sites for the cycle route. Given the nature, scale and location of the proposed project, it is not considered likely that the proposed project will impact either directly or indirectly on these habitats.	Screened out.
• *Juniperus communis* formations on heaths or calcareous grasslands [5130] • Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco-Brometalia*) (*important orchid sites) [6210] • Limestone pavements [8240]	The alignment of the proposed cycle route is dominated by hard standing areas such as roadways and pathways. Grassland and pavement habitats do not occur with the proposed sites for the cycle route. Given the nature, scale and location of the proposed project, it is not considered likely that the proposed project will impact either directly or indirectly on these habitats.	Screened out.
• Turloughs [3180] • Calcareous fens with *Cladium mariscus* and species of the Caricion davallianae [7210] • Alkaline fens [7230]	The alignment of the proposed cycle route is dominated by hard standing areas such as roadways and pathways. Wetland habitats do not occur with the proposed sites for the cycle route. Given the nature, scale and location of the proposed project, it is not considered likely that the proposed project will impact either directly or indirectly on these habitats.	Screened out.
• *Lutra* (Otter) [1355]	The alignment of the proposed cycle route is dominated by hard standing areas such as roadways and pathways. There are no watercourses capable of accommodating otters within the project site. Given the nature, scale and location of the proposed project, it is not considered likely that the proposed project will impact either directly or indirectly on otters.	Screened out.
• *Phoca vitulina (Harbour Seal) [1365]*	The alignment of the proposed cycle route is dominated by hard standing areas such as roadways and pathways.	Screened out.

	There are no waterbodies within the project site. Given the nature, scale and location of the proposed project, it is not considered likely that the proposed project will impact either directly or indirectly on seals.	
Inner Galway Bay SPA		
• Great Northern Diver (*Gavia immer*) [A003] • Cormorant (*Phalacrocorax carbo*) [A017] • Grey Heron (*Ardea cinerea*) [A028] • Light-bellied Brent Goose (*Branta bernicla hrota*) [A046] • Wigeon (*Anas penelope*) [A050] • Teal (*Anas crecca*) [A052] • Shoveler (*Anas clypeata*) [A056] • Red-breasted Merganser (*Mergus serrator*) [A069] • Ringed Plover (*Charadrius hiaticula*) [A137] • Golden Plover (*Pluvialis apricaria*) [A140] • Lapwing (*Vanellus vanellus*) [A142] • Dunlin (*Calidris alpina*) [A149] • Bar-tailed Godwit (*Limosa lapponica*) [A157] • Curlew (*Numenius arquata*) [A160] • Redshank (*Tringa totanus*) [A162] • Turnstone (*Arenaria interpres*) [A169] • Black-headed Gull (*Chroicocephalus ridibundus*) [A179] • Common Gull (*Larus canus*) [A182] • Sandwich Tern (*Sterna sandvicensis*) [A191] • Common Tern (*Sterna hirundo*) [A193] • Wetland and Waterbirds [A999]	The alignment of the proposed cycle route is dominated by hard standing areas such as roadways and pathways. There are no sites within the alignment of the routes suitable as foraging or nesting sites for bird species associated with the SPA. Given the nature, scale and location of the proposed project, it is not considered likely that the proposed project will impact either directly or indirectly on the qualifying interest bird species of Inner Galway Bay SPA.	Screened out.

5.4. In-combination Impacts

Galway City Development Plan (GCDP) 2017-2023 sets out policies and objectives for the development of Galway City. The Plan aims to promote the sustainable development and improvement of the economic, environmental, cultural and social aspects of Galway. Throughout the preparation of the GCDP, the Appropriate Assessment process was integrated into the various stages of the plan process and has guided preparation of development scenarios for the city. A Natura Impact Report accompanied the Draft GCDP and addressed Stage 1 Appropriate Assessment and Stage 2 Natura Impact Report.

The findings of the NIR are as follows: -

> *'The NIR findings are that the Plan implementation has the potential to result in impacts to the integrity of European sites, if unmitigated. The risks to safeguarding the integrity of the qualifying interest and conservation objectives of the European sites have been addressed by the inclusion of measures that will prioritise the avoidance of impacts in the first place and the mitigation of impacts where they cannot be avoided. In addition, all lower level plans and projects arising through the implementation of the Plan will be themselves be subject to the Appropriate Assessment process.*
>
> *An assessment of the potential cumulative impacts and in-combination effects of the Draft Plan concluded that through the implementation of the overarching policies and objectives of the Plan no negative in-combination effects for other plans and projects to European sites are expected through the implementation of the Plan. Having incorporated the mitigation measures, the NIR concluded that it is considered that the GCDP 2017-2023 will not have a significant adverse effect on the integrity of European sites.'*

Ardaun is an area to the east of Galway City and the Draft Ardaun Local Area Plan 2018-2024 outlines as a strategic goal; '*to create a high quality, mixed use, urban village that will support a strong and sustainable neighbourhood and facilitate access to a range of services and community facilities*'. The Draft Plan was subject to the Appropriate Assessment process which concludes;'…*based on objective scientific information, the proposed Ardaun LAP, individually or in combination with other plans or projects, will not have a significant effect on any European sites*'.

The Galway Cycle Network Phase 1 is to be undertaken in a phased basis with different cycleway routes being constructed at separate times on separate roadways. Outside of Doughiska Road (South), the remaining routes forming Phase 1 of the Galway Cycle Network are scheduled to be constructed subsequent to the proposed project. The proposed project will likely be in operation whilst construction of these other cycleway network routes is being progressed. These other sections of cycleways are entirely along the urban roadways of Galway City. Given the nature, scale and location of these other proposed cycleway projects, and as no impacts on any European site are anticipated from the proposed project, it is considered the proposed Route 2 Doughiska Road (South) project will not act in combination to give rise to any cumulative impacts on any European site.

The N6 Galway City Ring Road scheme and the Port of Galway Redevelopment project were also considered. The aforementioned projects are subject to the appropriate assessment process and are remote from the proposed cycleway route and as such it is considered they will not act in combination with the proposed cycleway route to give rise to in-combination impacts on the European sites associated with Galway Bay.

A search of the Galway City Council Planning Finder was conducted in April 2021 to determine if there are any granted developments within the vicinity of the proposed project which could act in combination with the proposed project to create cumulative impacts. This search identified in excess of 100 no. granted developments since 2015, the majority of which are small scale developments such as single residential properties, and extension works. A number of granted developments within vicinity of the proposed project include: -

- JLH Property Holding Company. Construction of 51 no. residential developments (1995). Granted 26/6/2019. This project will be construction north of the Old Dublin Road, is located ca. 300m from the proposed project.

- Bayhill Park Ltd., Construction of 14no. residential developments (15319). Granted 4/5/2016. This project will be constructed 110m from the proposed project.

- DWK Developments Ltd., Permission for minor amendments to previously granted planning – amendments of change of house type (17109). Granted 20/6/2017**.** This project will be constructed adjacent to the proposed project and will be accessed of the road along which the proposed project will be aligned.

Given the scale and nature of the proposed cycleway project and the fact that significant impacts are not anticipated on any European site, the proposed project will not act in combination with these granted developments to create significant impacts.

NPWS site documents outline the main high threats and pressures on the European sites within the ZoI of the proposed project as being from shipping lanes, ports, marine constructions, pollution to surface waters from household sewage, waste waters, agricultural and forestry activities, sea defence or coast protection works, tidal barrages, industrial ports, discharges, urbanised areas, human habitation and reclamation of land from sea, estuary or marsh. It is considered unlikely that the proposed cycleway project will act in combination with the threats and pressures identified in the NPWS site documents to give rise to significant effects on the European sites within the ZoI of the proposed project.

Thus, in summary, no proposed projects or plans were identified that would, in-combination with the proposed project, have likely significant effects on the European sites within the ZoI of the proposed project, or any other European site.

5.5. Likelihood of Significant Effects on European Sites

Due to the scope and nature of the proposed project, it is considered that the proposed project, either alone or in combination with other plans or projects, will not result in likely significantly effects on the Galway Bay Complex SAC or Inner Galway Bay SPA, or any other European site, in view of their conservation objectives.

5.6. Consideration of Findings

This Screening for Appropriate Assessment report is based on the best available scientific information. It is concluded by the authors of this report that the proposed Galway Cycle Network Phase 1 – Work Package 02 Doughiska Road (South) project, either alone or in combination with other plans or projects, does not pose likely significant effects on European sites.

Thus, it is recommended that is it not necessary for the proposed project to proceed to Appropriate Assessment.

Should the scope, nature or extent of the proposed project change, a new Screening for Appropriate Assessment report shall be required.

6. Appropriate Assessment Screening Matrix

Table 6-1 Screening Matrix.

1. Description of the project or plan	
Location	Galway Bay Complex SAC Inner Galway Bay SPA
Distance from designated site	Adjacent to the proposed project
Brief Description of the project or plan	See Section 1.1
Is the plan directly connected with or necessary to the site management for nature conservation?	No

2. Brief Description of the European site(s)	
Name	Galway Bay Complex Inner Galway Bay
Site designation status	SAC SPA
Qualifying interests	See Table 4-1
Unit size	14402.77ha (89.58% Marine) 13267.57ha (94.23% Marine)

3. Assessment Criteria	
Other plans or projects which may have a cumulative impact	There are no likely impacts arising from the proposed works on the European sites and there are no other plans or projects ongoing at the same time that would contribute to a cumulative impact on the European sites. Therefore, cumulative impacts with other projects will not occur.
Describe the individual elements of the project (either alone or in combination with other plans or projects) likely to give rise to impacts on the European sites.	See Section 1.1 for description of the proposed project.
Describe any likely direct, indirect or secondary impacts of the project (either alone or in combination with other plans or projects) on the European site by virtue of: Size and scale	The location and scale of the proposed project is such that direct or indirect impacts are not considered likely.

3. Assessment Criteria	
Land-take Distance from European site or key features of the site Resource requirements Emissions Excavation requirements Transportation requirements Duration of construction, operation etc. Others	
Describe any likely changes to the site arising as a result of: Reduction of habitat area Disturbance of key species Habitat or species fragmentation Reduction in species density Changes in key indicators of conservation value Climate change	There are no likely changes to the site as a result of the proposed works. There shall be no reduction of habitat area within European sites as a result of the proposed project. There shall be no habitat or species fragmentation or reduction in species density as a result of the works.
Describe any likely impacts on the European site as a whole in terms of: Interference with the key relationships that define the structure of the site Interference with key relationships that define the function of the site.	There are no likely changes to the site as a result of the proposed project works with respect to the key relationships that define the structure or function of the SAC/SPA.
Provide indicators of significance as a result of the identification of effects set out above in terms of: Loss Fragmentation Disruption Disturbance Change to key elements of the site	There is no potential for impact to qualifying interests of the SAC/SPA given the nature and scale of the works.
Describe from the above those elements of the project or plan, or combination of elements, where the above impacts are likely to be significant or where the scale of magnitude of impacts is not known.	No significant impacts are likely as a result of the proposed works.

Data collected to carry out the assessment			
Who carried out the assessment	**Sources of data**	**Level of assessment completed**	**Where can the full results of the assessments be accessed and viewed?**
Atkins 150 Airside Business Park Swords Co. Dublin	Desktop data derived from the NPWS – Natura 2000 form, site synopsis, SAC/SPA reports etc. National Biodiversity Date Centre online data. EPA Envision Mapping system; Google maps; Bing Maps etc. Galway City Council Planning Enquiry System	Screening	Atkins 150 Airside Business Park Swords Co. Dublin

7. References

CIEEM (2018). *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine*. Chartered Institute of Ecology and Environmental Management, Winchester.

Department of the Environment, Heritage and Local Government (2009). *Appropriate Assessment of Plans and Projects in Ireland. Guidance for Planning Authorities*.

European Commission (2018). *Managing Natura 2000 sites: the provisions of Article 6 of the 'Habitats' Directive 92/43/EEC.*

European Commission (2001). *Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Articles 6(3) and (4) of the Habitats Directive 92/43/EEC*.

European Commission (2007). *Guidance document on Article 6(4) of the 'Habitats Directive' 92/49/EEC; clarification of the concepts of: Alternative solutions, Imperative reasons of overriding public interest, Compensatory Measures, Overall Coherence, Opinion of the Commission*.

Fossitt, J. (2000). *A Guide to Habitats in Ireland*. The Heritage Council.

Scott Wilson and Levett-Therivel, (2006). *Appropriate Assessment of Plans*. Scott Wilson, Levett-Therivel Sustainability Consultants, Treweek Environmental Consultants and Land Use Consultants.

Galway City Council Planning Department – Online Planning System. https://www.galwaycity.ie/online-planning-system.

Galway City Council (2017). *Galway City Development Plan 2017-2023*.

Galway City Council (2017). Galway City Development Plan 2017-2023 – Appropriate Assessment, Natura Impact Report, RPS Group Ltd, 2016.

NPWS (2013). *Conservation Objectives: Galway Bay Complex SAC 000268*. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

NPWS (2013). Conservation Objectives: Inner Galway Bay SPA 004031. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

NPWS (2014). Site Synopsis. Inner Galway bay SPA (004031). National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

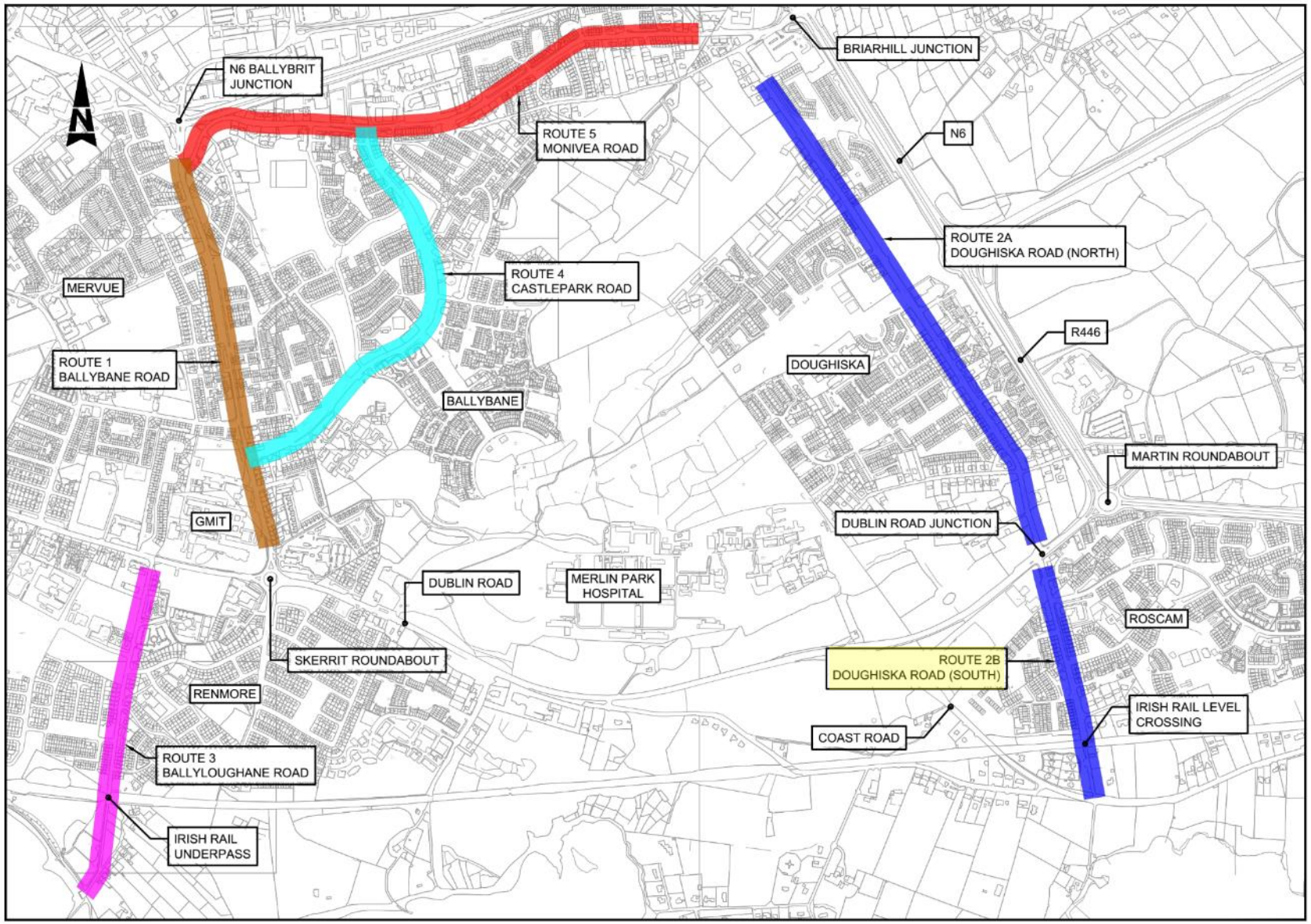
NPWS (2015). *Site Synopsis. Galway Bay Complex SAC (000268) Rev 15*. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

NPWS (2017). Natura 2000 – *Standard Data Form (2017). Galway Bay Complex SAC, Site Code IE0000268*.

NPWS (2017). Natura 2000 – *Standard Data Form (2017). Inner Galway bay SPA, Site Code IE0004031*.

Appendices

Appendix A. Project Site Extents


N6 BALLYBRIT JUNCTION
ROUTE 5 MONIVEA ROAD
BRIARHILL JUNCTION
N6
ROUTE 2A DOUGHISKA ROAD (NORTH)
ROUTE 4 CASTLEPARK ROAD
MERVUE
R446
ROUTE 1 BALLYBANE ROAD
DOUGHISKA
BALLYBANE
MARTIN ROUNDABOUT
GMIT
DUBLIN ROAD JUNCTION
DUBLIN ROAD
MERLIN PARK HOSPITAL
ROSCAM
SKERRIT ROUNDABOUT
ROUTE 2B DOUGHISKA ROAD (SOUTH)
RENMORE
IRISH RAIL LEVEL CROSSING
COAST ROAD
ROUTE 3 BALLYLOUGHANE ROAD
IRISH RAIL UNDERPASS

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