

N53 Hackballscross to Rassan Scheme

AA Screening Report

Louth County Council

21/05/2021



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1. Introduction

Atkins Ireland have been commissioned to carry out a Screening for Appropriate Assessment (AA) for the proposed realignment of the N53 national roadway between Hackballscross and Rasan.

The N53 has been identified as one of the country's important National Secondary Routes, providing a strategic transport link for the northwest to the northeast. The N53 serves the towns of Dundalk and Castleblayney after which it joins the N2 for its onward linkage to the northwest. The existing N53 is narrow and undulating in character thereby providing limited overtaking opportunities along its length. This in turn tends to lead to driver frustration and potentially hazardous driving manoeuvres.

The N53 Hackballscross to Rasan Scheme (hereafter referred to as the 'scheme') entails the upgrade of approximately 3.3km of the N53 in the townlands of Carrickastuck, Annaghvacky and Rasan, County Louth and involves the proposed realignment of a section of the N53 national secondary route. The location of the proposed scheme is outlined below in Figure 1-1.

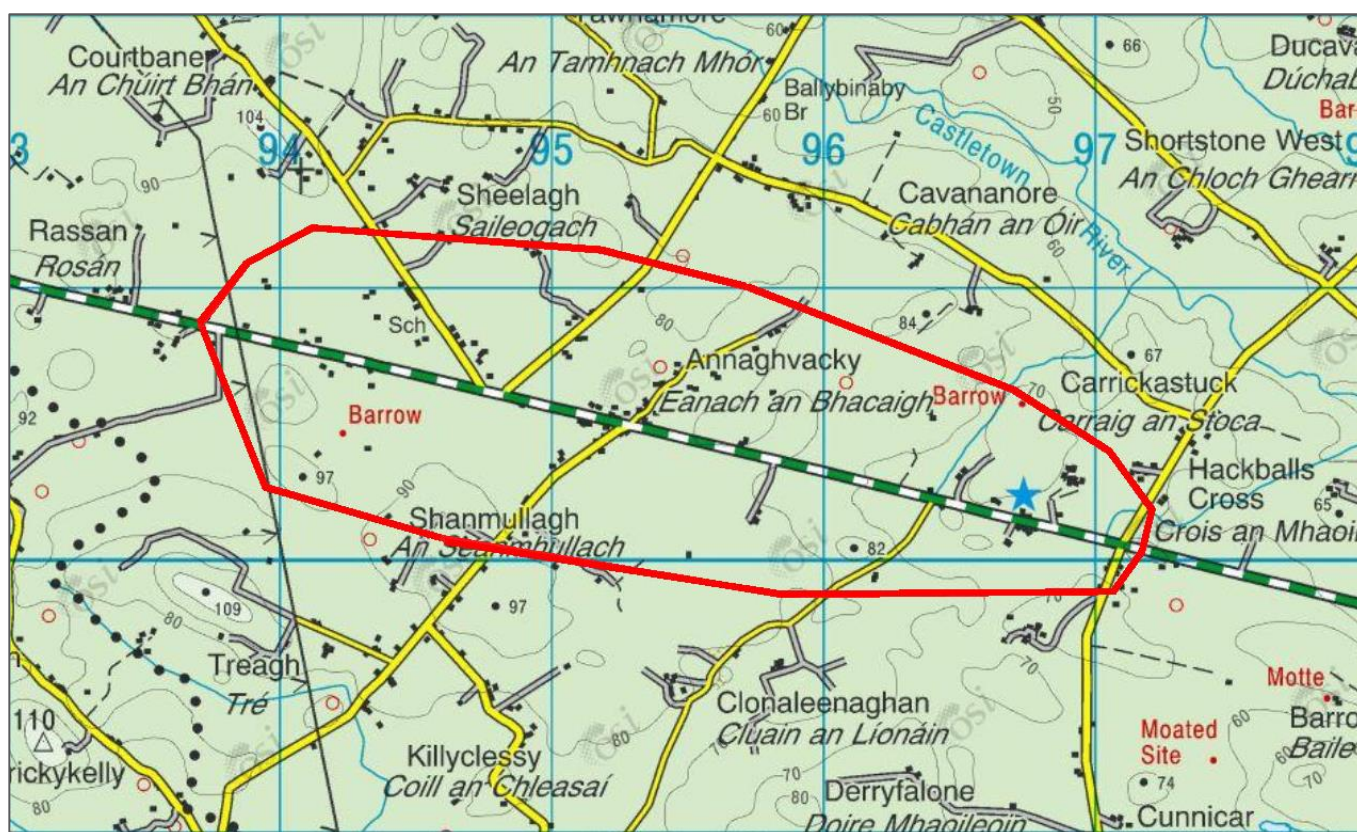


Figure 1-1 Location for the proposed Hackballscross to Rasan road improvement scheme.

1.1.1. Summary of the Proposed Scheme

The proposed scheme will provide a road which is designed to comply with current TII design standards and does not present drivers with unexpected or substandard layouts.

The proposed scheme has the following characteristics: -

- Length of proposed mainline: 3.3 km
- Percentage online / offline: approximately 850m online / 2,450m offline
- Mainline cross-section: Type 1 Single Carriageway
- Number of mainline junctions: 3 No. Junctions
- Side roads realigned (from west to east): L7120
- Structures: 1 no. pedestrian subway
- Townlands through which it travels: Hackballscross, Carrickastuck, Annaghvackey and Shanmullagh.

The development of the alignment of the scheme including preliminary design details are included in the accompanying N53 Hackballscross to Rasan: Part 8 Planning Report (Westmeath NRO 2021).

The type of road proposed to be constructed is a Type 1 Single Carriageway for the full length of the proposed route with the exception of Chainage 3000 to Chainage 3300 (approx.) where the scheme transitions into a Type 2 Single Carriageway (to facilitate the tie-in with the existing N53 at Hackballscross). A typical cross-section for Type 1 Single Carriageway is shown in the Transport Infrastructure Ireland (TII) Standard Construction Details Drawing No. CC-SCD-00001 (TII, 2017) and is shown in Figure 1-2. Note that all dimensions presented in the figure are in millimetres.

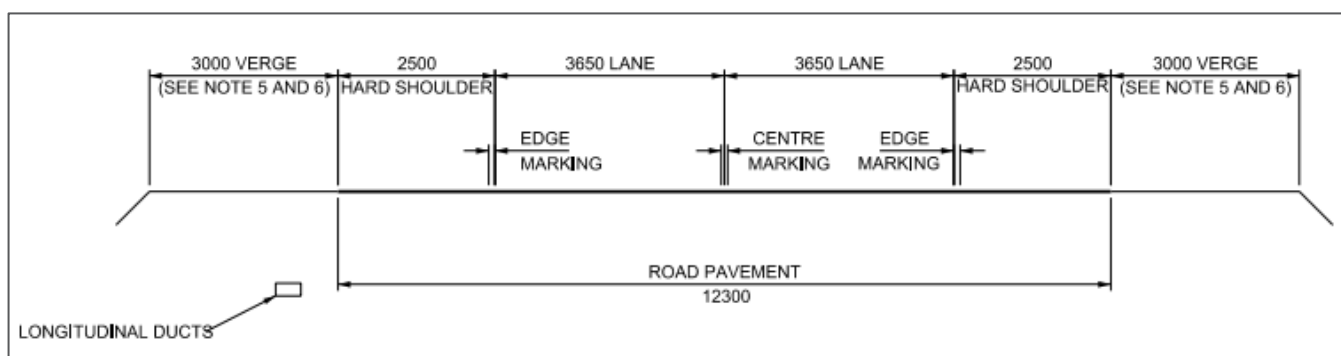


Figure 1-2 Type 1 Single Carriageway.

Drainage for the scheme is proposed to outfall through 3 no. attenuation ponds to local watercourses / streams to the north and south of the new alignment. The local streams conjoin with the Castletown River and Fane River which outfall to sea in the areas of Dundalk town and Blackrock town respectively.

The scheme construction will include the following activities: -

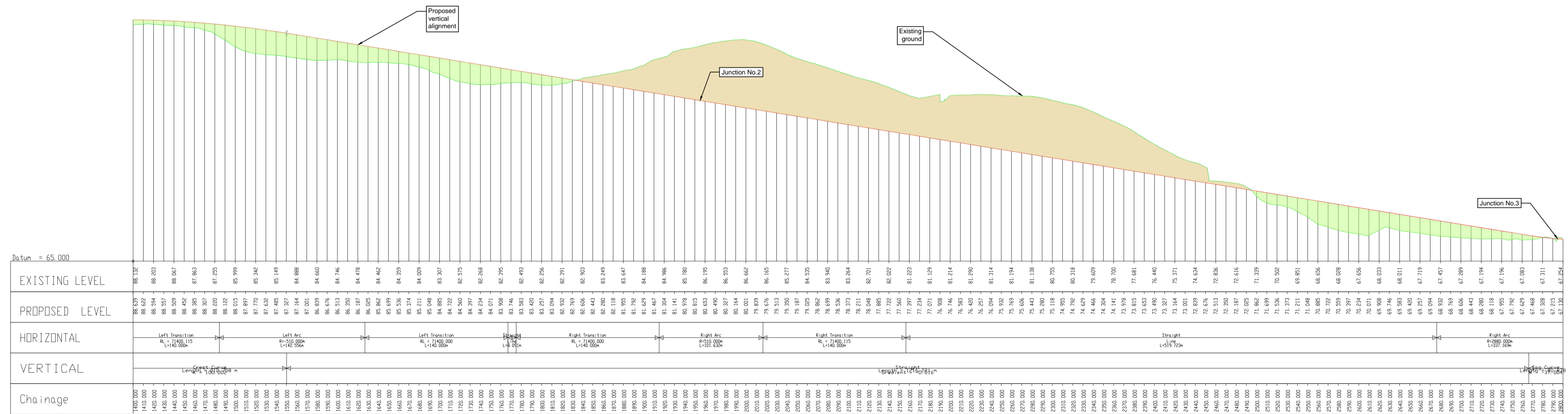
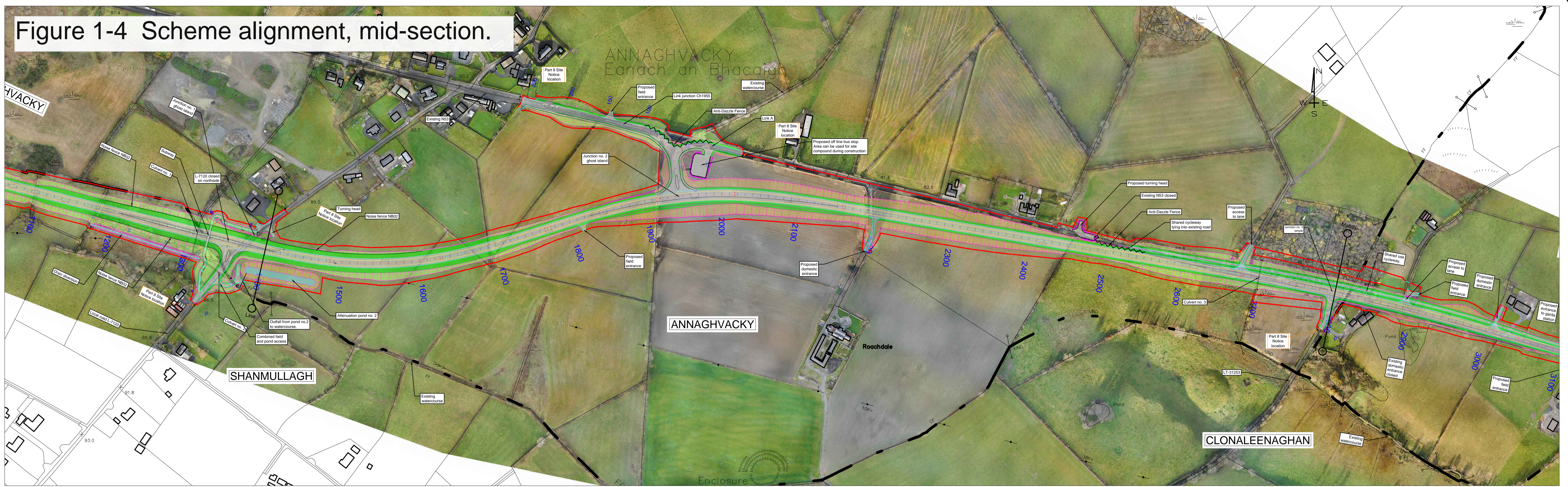
- Site clearance to remove vegetation, topsoil and existing road materials.
- Earthworks involving 'cut and fill' operations to achieve the required road levels.
- Importation of soil and stone materials to be used as 'fill' materials.
- Construction of one pedestrian subway.
- Construction of standard surface water drainage design measures such as gullies, carrier pipes, petrol interceptors, attenuation ponds and outfalls.

- Construction of road pavement with bituminous materials.
- Installation of vehicle restraints systems, fencing, ducting, utility lighting, traffic signals, road markings, signage, soft landscaping and all other ancillary works.

The proposed road design will include road drainage based on Sustainable Drainage Systems (SuDS) including attenuation for a 100-year flood event and 20% climate change and hydrocarbon interceptors prior to eventually discharging into the Carrickastuck Stream, Drumboat Stream and Inishkeen Stream. SuDS will be an integral part of the project and the function of the SUDS design is to retain sediments and pollutants arising from road surfaces and regulate flows following a rainfall event. The design of the SuDS surface water drainage system is in accordance with planning policy and sustainable development.

The route of the proposed scheme is detailed below in Figures 1-3,1-4 and 1-5.

Figure 1-4 Scheme alignment, mid-section.



2. Scope of Study

The aim of this report is to provide supporting information to assist the competent authority to carry out an Appropriate Assessment (AA) determination with respect to the proposed scheme.

2.1. 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 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.”

2.2. Appropriate Assessment Process

Guidance on the AA process was produced by the European Commission (EC, 2001; 2018), which was subsequently used to develop guidance for Ireland by the Department of Environment, Heritage and Local Government in 2009 (DEHLG, 2009) and also by the National Parks and Wildlife Service in 2018¹ (NPWS 2018). These guidance documents set out a staged approach to complete the AA process and outlines the issues and tests at each stage. The stages outlined below are taken from the guidance document *Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities* (DEHLG, 2009).

¹ <https://www.npws.ie/development-consultations>

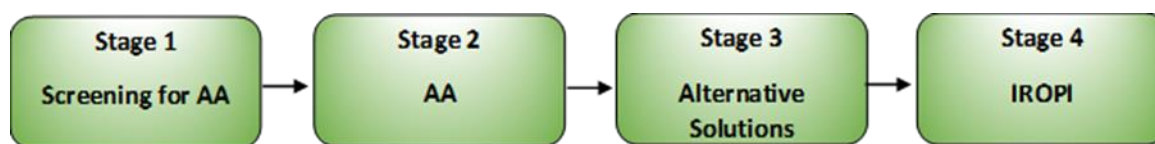


Figure 2-1 - Appropriate Assessment Process (Source: DEHLG, 2009).

2.2.1. 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): -

- i. Whether a plan or project is directly connected to or necessary for the management of the site, and
- ii. 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 Appropriate Assessment.

2.2.2. Appropriate Assessment

Appropriate Assessment 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 necessary mitigation measures.

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 sufficient mitigation cannot be achieved, the alternative solutions need to be considered and the process proceeds to the consideration of alternative solutions.

2.2.3. Alternative Solutions

This 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 AA as alternatives will require 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 examine whether there are imperative reasons of overriding interest (IROPI).

2.2.4. IROPI

This 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 the full process for certain plans and projects. For example, for a project not connected with the management of a European site and where no likely significant effects on a European site in view of its conservation objectives are identified, the process stops at Screening for AA. Throughout the process the precautionary principle must be applied, which requires that the conservation objectives of Natura 2000 should prevail where there is uncertainty (EC, 2001; 2018).

3. Methods

3.1. Legislation, Case Law & Guidance Documents

This report was prepared with reference and due consideration to the following documents and due regard for relevant 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;
- National Parks and Wildlife Service - Development Consultations² (NPWS 2018)
- 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;
- Department of the Environment, Heritage and Local Government (2010). Appropriate Assessment of Plans and Projects in Ireland. Guidance for Planning Authorities;
- National Roads Authority (2009). Guidelines for Assessment of Ecological Impacts of National Roads Scheme; and,
- Office of the Planning Regulator (2021). Appropriate Assessment Screening for Development Management. OPR Practice Note PN01; and,
- Case C-323/17 People Over Wind & anor. V. Coillte, Kelly v An Bord Pleanála & anor [2019] IEHC 84 and other relevant court rulings and case law.

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 maps³ and Bing maps⁴ (last accessed on (21/05/2021).

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) mapping⁵ system was used to identify any hydrological connection between the proposed project and European sites, this information was supported by site walkover surveys.

Locations and boundaries of all European sites within the zone of influence of the proposed project 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 was reviewed on the NPWS website, including the site synopsis for each SAC/SPA, the conservation objectives, the site boundaries as shown on the NPWS online map viewer, the standard European 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.

² <https://www.npws.ie/development-consultations>

³ <https://www.google.ie/maps>

⁴ <http://www.bing.com/maps/>

⁵ <https://gis.epa.ie/EPAMaps/>

Relevant planning information for the surrounding area was reviewed using the planning enquiry systems of Louth County 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 walkover surveys were undertaken in July 2020 to review sites and habitats of ecological importance along the proposed route. Site surveys were undertaken within the optimal surveying window for habitats and floral species. The site survey findings have been used to inform this screening report.

3.4. Statement of Authority

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

Avril McCollom has a BSc (Hons) in Freshwater and Marine Biology. Avril has worked in ecological and environmental consultancy since 2017, working on a wide range of projects including road construction, Strategic Housing Developments and Strategic Infrastructure Developments. A focus of Avril's work to date has been on the preparation of Appropriate Assessment Screenings, Environmental Impact Assessment Screenings, Outline Construction Environmental Management Plans and Construction and Demolition Waste Management Plans.

Colin Wilson 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 numerous 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

Site surveys and a review of Corine⁶ land cover information identifies the alignment of the proposed route as lands principally occupied by agriculture. The lands along the scheme corridor are primarily made up of improved agricultural grasslands used for pasture and crop production. Built areas along the route include private residences which are mainly adjacent to roads, farm buildings and small to medium sized enterprises (SMEs).

Woodland and wetland habitat are also identified within the study area. Wetland Survey Ireland (WSI) details 2 no. wetland habitats within the alignment corridor of the proposed scheme. Near Hackballscross (Chainage 2,700, Figure 1-2), north of the new roadway alignment the proposed N53 route will cross through a road front section of Annaghvacky (Hackballscross) Wet Woodlands (WSI Code: WMI_LH171). This wetland site is identified by WSI as a '*Small alder and ash woodland adjacent to N53. Site dry under foot with Bramble layer. Infilling and silage storage at north west end*'. WSI classifies this wet woodland as being of local conservation value.

The alignment will pass adjacent to another wetland site; Annaghvacky West (WSI Site Code: WMI_LH237). This wetland site is located north of the new roadway alignment, outside the footprint of the proposed scheme (North of Chainage 1,000, Figure 1-1). This wetland habitat is described by WSI as follows: '*Area of transition mire on former cutover (bog) with a shallow layer of underlying peat. Groundwater influence evident. Cutover hags with acid heath vegetation remain at western end of site*' and WSI classifies the habitat as being of site of conservation importance at a county level. A review of recently published (2020) NPWS datasets⁷ identifies areas of Annaghvacky West wetlands as having been recently classified as having correspondence to Annex I habitat: Transition Mire and quaking bog [7140] and as such areas of this wetland habitat are now considered to be of international conservation value. This annexed wetland habitat does not form part of the Natura 2000 network nor is it connected to any European site (SAC/SPA) and as such it is not included within this assessment of potential impacts of the proposed scheme on European sites.

The ecological features and habitats found along the scheme are outlined in detail within the accompanying N53 Hackballscross to Rassan Scheme - Environmental Report (Atkins 2021, document reference: 5187353DG0118). The assessment of potential ecological impacts from the proposed road scheme upon the Annex 1 habitat found within areas of the Annaghvacky West wetland site are detailed in the accompanying Environmental Report (Atkins 2021).

The route of the proposed scheme will also cross numerous hedgerows and treelines, bordering the agricultural lands, which are considered to be of local conservation value.

The route of the N53 Road Scheme lies within the Newry, Fane, Glyde and Dee Water Framework Directive (WFD) catchment area (catchment ID: 06) and the Castletown subcatchment area (subcatchment ID: 06_12). The scheme lies within the Louth Ground Waterbody (European Code: IEGBNI_NB_G_019), noted by the Environmental Protection Agency (EPA⁸) as having a *Good* status.

There are 3 no. streams with connectivity to the proposed scheme via the proposed road's surface water drainage, these streams are: Carrickastuck Stream, Drumboat Stream and Inishkeen Stream. The Carrickastuck Stream is located to the north of the proposed scheme and flows in northerly direction to join the larger Castletown River which outfalls ca. >10km downstream into Dundalk Bay. To the south of the proposed new alignment surface water drainage is proposed to outfall via attenuation ponds to the Drumboat and Inishkeen streams which conjoin with the Fane River which outfalls to sea in the area of Blackrock town ca. >18km downstream of the proposed scheme.

It should be noted that the EPA identify Annaghvacky Stream as being in close proximity to the route, however, site surveys found no watercourse in the location outlined by EPA datasets. Details of the Carrickastuck Stream, Drumboat Stream, Inishkeen Stream and the larger Castletown and Fane Rivers as outlined by the EPA⁹ are summarised in Table 4-1 below.

⁶ <https://gis.epa.ie/EPAMaps/>

⁷ <https://www.npws.ie/maps-and-data/habitat-and-species-data/article-17/2019>

⁸ <https://gis.epa.ie/EPAMaps/>

⁹ EPA records last accessed 21/07/2020

Table 4-1 - WFD details of watercourses within or connected to the N52 Road Scheme site.

Watercourse	Code	River Waterbody WFD Status (2013-2018)	River Waterbody Risk
Carrickastuck Stream	IE_NB_06C010200	Good	Under review
Drumboat Stream	UKGBNI1NB060608249	Moderate	At Risk
Inishkeen Stream	IE_NB_06F010900	Good	Under review
Castletown River	IE_NB_06C010200	Good	Under review
Fane River	IE_NB_06F010900	Good	Under review

Watercourses in context with the N53 Road Scheme are illustrated in Figure 4-1 below.

Details of the existing environment within and around the proposed scheme are further identified in accompanying report; N53 Hackballscross to Rassan – Environmental Report 2021 (Atkins document reference: 8187353DG0118).

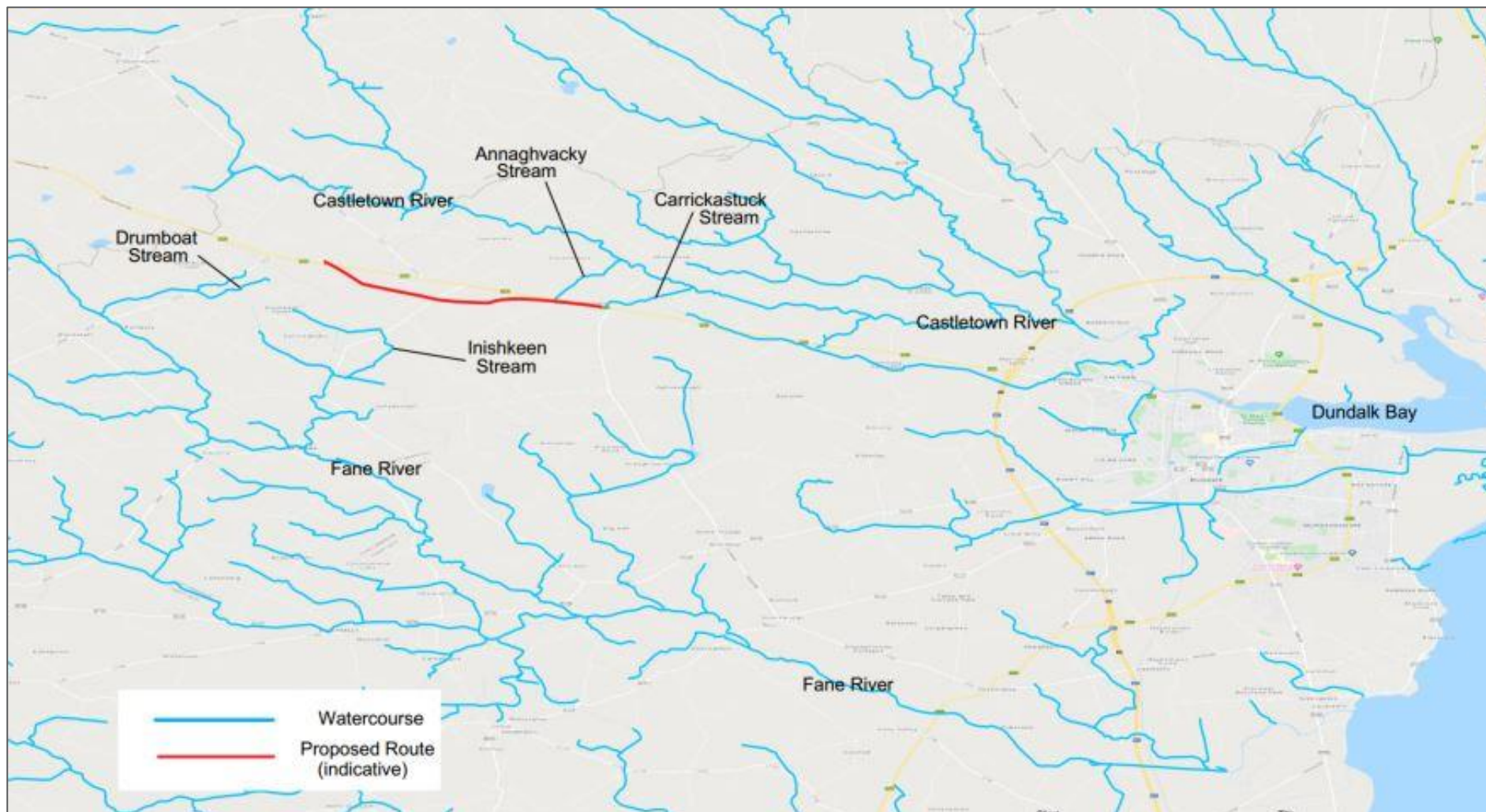


Figure 4-1 EPA identified watercourses in close proximity to the proposed scheme.

5. Appropriate Assessment Screening

5.1. Connectivity of Proposed Project to European Sites

The 'zone of influence' (Zol) 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 scheme site, for example where there are ecological or hydrological links beyond the scheme 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 recommended in the case of plans and projects, as a potential zone of influence and this distance is derived from UK guidance (Scott Wilson *et al.*, 2006). However, for projects the distance could be much less, and in some cases less than 100m. National Parks and Wildlife Service guidance¹⁰ 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 scheme, the potential zone of influence will consider European sites with regard to the location of a European site, the Qualifying Interests (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 alignment of the scheme does not lie within nor is it adjacent to any European site. There are no ecological corridors present, such as hedgerows or treelines, from the proposed scheme that could provide connectivity to any European site.

There are 4 no. European sites within the potential zone of influence of the proposed project; 3 no. SACs and 1 no. SPA as follows: Dundalk Bay SAC, Dundalk Bay SPA, Slieve Gullion SAC and Carlingford Mountain SAC.

The only European sites with connectivity to the proposed scheme are Dundalk Bay SAC (site code: 000455) and Dundalk Bay SPA (site code: 004064) which are located ca. 8.6km and ca. 7.2km east via land of the proposed scheme, respectively (ca. > 12km and ca.>10km downstream respectively via shortest watercourse). Surface water drainage from road scheme is proposed to outfall (via Carrickastuck, Drumboat and Inishkeen streams) into the Castletown and Fane Rivers thus providing indirect connectivity to the European sites within Dundalk Bay. Potential impacts on Dundalk Bay SAC and Dundalk Bay SPA are discussed in detail below.

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

Figure 5-1 depicts the locations of the European Sites within the potential Zol of the proposed project.

¹⁰ 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 scheme.

European Site	Approximate distance from the Scheme	Qualifying Interests	Assessment
Dundalk Bay SAC (Site Code: IE000455)	<ul style="list-style-type: none"> ca. 8.6km east via land ca. >12km downstream via Carrickastuck and Castletown watercourses ca. > 18km downstream via the Drumboat, Inishkeen and Fane watercourses 	<p>Estuaries [1130] Mudflats and sandflats not covered by seawater at low tide [1140] Perennial vegetation of stony banks [1220] Salicornia and other annuals colonising mud and sand [1310] Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>) [1330] Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410]</p>	<p>The proposed project is located ca. 8.6km via land and ca. >12km downstream from the Dundalk Bay SAC.</p> <p>There is indirect connectivity from the proposed scheme to Dundalk Bay SAC as the surface water drainage from the proposed scheme will outfall to Carrickastuck Stream, Drumboat Stream and Inishkeen Stream which connect to the Castletown and Fane Rivers which outfall to Dundalk Bay.</p> <p>Potential impacts on this European site are discussed below.</p>
Dundalk Bay SPA (Site Code: IE0040265)	<ul style="list-style-type: none"> ca. 7.2km east via land ca. >10km downstream via Carrickastuck and Castletown watercourses ca. > 18km downstream via the Drumboat, Inishkeen and 	<p>Great Crested Grebe (<i>Podiceps cristatus</i>) [A005] Greylag Goose (<i>Anser anser</i>) [A043] Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046] Shelduck (<i>Tadorna tadorna</i>) [A048] Teal (<i>Anas crecca</i>) [A052] Mallard (<i>Anas platyrhynchos</i>) [A053] Pintail (<i>Anas acuta</i>) [A054] Common Scoter (<i>Melanitta nigra</i>) [A065] Red-breasted Merganser (<i>Mergus serrator</i>) [A069] Oystercatcher (<i>Haematopus ostralegus</i>) [A130] Ringed Plover (<i>Charadrius hiaticula</i>) [A137]</p>	<p>The proposed project is located ca. 7.2km via land and ca. >10km downstream from the Dundalk Bay SPA.</p> <p>There is indirect connectivity from the proposed scheme to Dundalk Bay SPA as the surface water drainage from the proposed scheme will outfall to Carrickastuck Stream, Drumboat Stream and Inishkeen Stream which connect to the Castletown and Fane Rivers which outfall to Dundalk Bay.</p> <p>Potential impacts on this European site are discussed below.</p>

	Fane watercourses	<p>Golden Plover (<i>Pluvialis apricaria</i>) [A140] Grey Plover (<i>Pluvialis squatarola</i>) [A141] Lapwing (<i>Vanellus vanellus</i>) [A142] Knot (<i>Calidris canutus</i>) [A143] Dunlin (<i>Calidris alpina</i>) [A149] Black-tailed Godwit (<i>Limosa limosa</i>) [A156] Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157] Curlew (<i>Numenius arquata</i>) [A160] Redshank (<i>Tringa totanus</i>) [A162] Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179] Common Gull (<i>Larus canus</i>) [A182] Herring Gull (<i>Larus argentatus</i>) [A184] Wetland and Waterbirds [A999]</p>	
Slieve Gullion SAC (Site Code: UK 0030277)	ca. 10km north via land	European dry heaths [4030]	<p>Slieve Gullion is a mountain located to the north of Dundalk and is a designated conservation area for accommodating protected heath habitat.</p> <p>There is no direct overlap between the proposed scheme and Slieve Gullion SAC, nor do any of these habitats occur within or close to the proposed scheme.</p> <p>There is no indirect connectivity through hydrological pathways from the scheme to this SAC. The proposed road scheme lies within a separate groundwater body to that of the SAC and therefore connectivity through groundwater pathways is precluded.</p> <p>The location, scale and operation of the proposed scheme is such that they will not contribute to direct, indirect or in-combination impacts on the habitat for which the SAC has been designated and does not have the potential to affect the conservation objectives of this habitat.</p> <p>This site is not considered further.</p>

Carlingford
Mountain
SAC (Site
Code:
IE000453)

ca. 12.6km
northeast via land

Northern Atlantic wet heaths with *Erica tetralix* [4010]
European dry heaths [4030]
Alpine and Boreal heaths [4060]
Species-rich *Nardus* grasslands, on siliceous substrates in mountain areas (and submountain areas, in Continental Europe) [6230]
Transition mires and quaking bogs [7140]
Alkaline fens [7230]
Siliceous scree of the montane to snow levels (*Androsacetalia alpinae* and *Galeopsietalia ladani*) [8110]
Calcareous rocky slopes with chasmophytic vegetation [8210]
Siliceous rocky slopes with chasmophytic vegetation [8220]

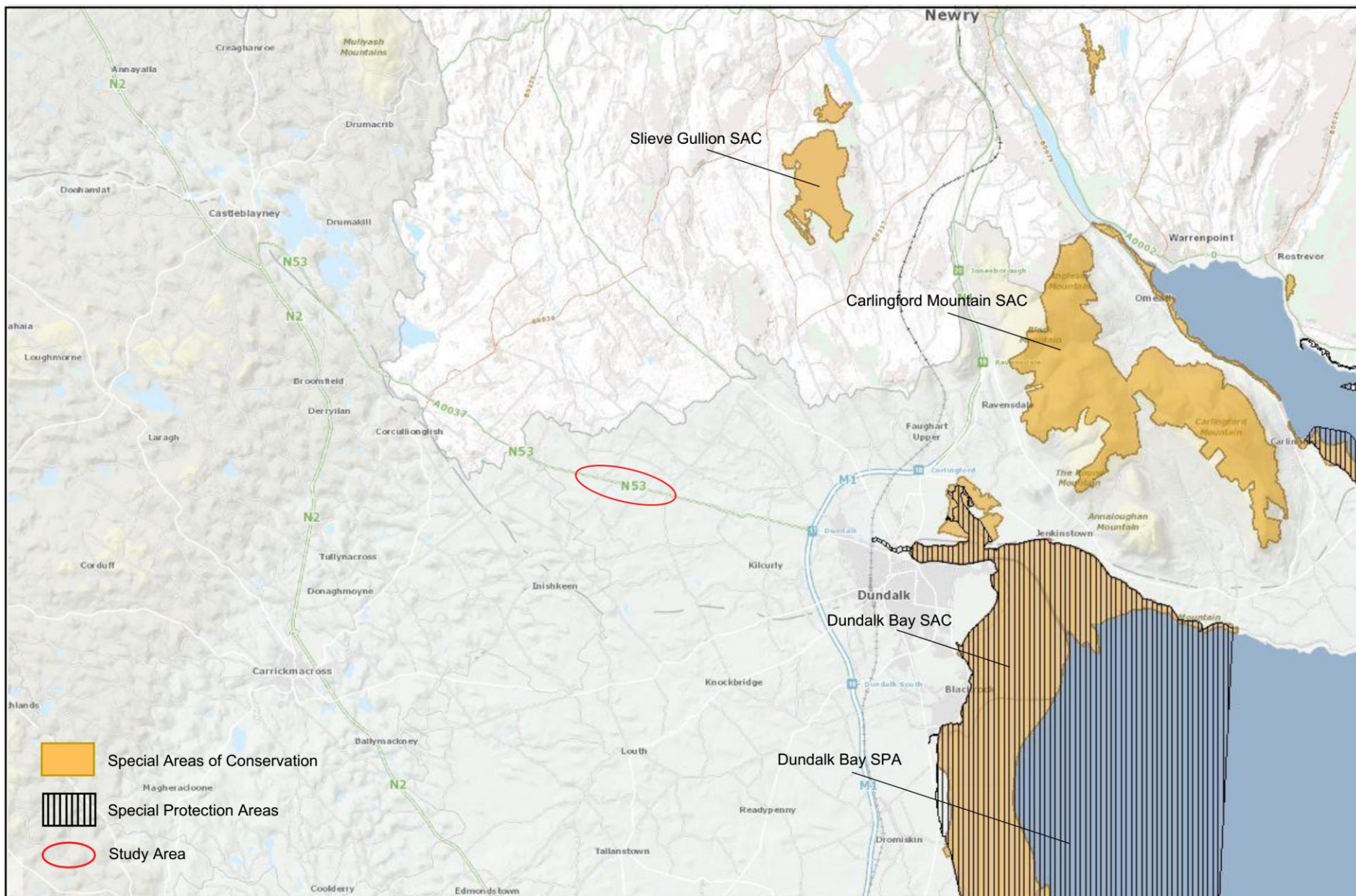
There is no direct overlap between the proposed scheme and the SAC. There is no connectivity in the form of hedgerows, treelines or watercourses between the proposed scheme and this SAC.

The alignment of the proposed scheme does not support the habitats for which the SAC has been designated.

The location, scale and operation of the proposed scheme is such that they will not contribute to direct, indirect or in-combination impacts on the habitats for which the SAC has been designated and does not have the potential to affect the conservation objectives of these habitats.

This site is not considered further.

Figure 5.1 SAC and SPA sites within potential zone of influence of the proposed scheme.



5.2. Brief Description of Dundalk Bay SAC

A synopsis of the SAC, as detailed by NPWS, is as follows¹¹: -

“Dundalk Bay, Co. Louth, is a very large open, shallow sea bay with extensive saltmarshes and intertidal sand/mudflats, extending some 16 km from Castletown River on the Cooley Peninsula in the north, to Annagassan/Salterstown in the south. The bay encompasses the mouths and estuaries of the Rivers Dee, Glyde, Fane, Castletown and Flurry.

*Saltmarsh vegetation occurs in four main areas: at Lurgangreen, Marsh South, Dundalk Harbour and Bellurgan. Two types are represented – Atlantic and Mediterranean salt meadows. The Atlantic salt meadows are commonest and are characterised by Sea-purslane (*Halimione portulacoides*) (often as a dominant band), along with Common Saltmarsh-grass (*Puccinellia maritima*), Thrift (*Armeria maritima*), Red Fescue (*Festuca rubra*), Common Scurvygrass (*Cochlearia officinalis*), Sea Plantain (*Plantago maritima*) and Sea Rush (*Juncus gerardi*). Common Cord-grass (*Spartina anglica*) is frequent and often dominant over substantial areas. Glassworts (*Salicornia* spp.) occur on the lower zones of the saltmarshes, and in places extend out onto the sandflats. Mediterranean salt meadows are mostly confined to the upper levels of the saltmarshes or along stream sides where they merge with grassland habitats (though the transitional zone is now absent in many places). The habitat contains Sea Rush (*Juncus maritimus*), Sea Arrowgrass (*Triglochin maritima*) and Sea Aster (*Aster tripolium*). The saltmarshes at Lurgangreen and Marsh South are partially fenced and grazed by sheep.*

*Shingle beaches are particularly well represented in Dundalk Bay, occurring more or less continuously from Salterstown to Lurgan White House in the south bay, and from Jenkinstown to east of Giles Quay in the north bay. The shingle is mostly stable, occurring on post-glacial raised beaches. The shingle often occurs in association with intertidal shingle, saltmarsh and or shingle-based grassland. The shingle supports Version date: 31.01.2014 2 of 2 000455_Rev13.Doc species such as Spear-leaved Orache (*Atriplex prostrata*), Sea Mayweed (*Matricaria maritima*), Sea Beet (*Beta vulgaris* subsp. *maritima*), Sea Rocket (*Cakile maritima*), Wild Carrot (*Daucus carota*), Sea-holly (*Eryngium maritimum*), Sea Sandwort (*Honkenya peploides*) and Sea Radish (*Raphanus raphanistrum* subsp. *maritimus*). Yellow Hornedpoppy (*Glaucium flavum*) and Lyme-grass (*Leymus arenarius*) occur here at their most northern locality on the east coast, while the Red Data Book species Sea-kale (*Crambe maritima*) has recently been recorded.*

*The extensive sandflats and mudflats (over 4,000 ha) occur and are comprised of ecological communities such as muddy fine sand communities and fine sand community complexes. In the centre of Dundalk Bay there is a gravel community dominated by polychaetes. These habitats host a rich fauna of bivalves molluscs, marine worms and crustaceans and are the main food resource of the tens of thousands of waterfowl (including waders and gulls) which feed in the intertidal area of Dundalk Bay. The saltmarshes are used as high-tide roosts by all of these species, while the grazing birds (notably Brent Goose and Wigeon) feed on the saltmarsh grasses, areas of *Zostera* and other grassland vegetation. Brent Goose also feed on the mats of green algae on the mudflats. At night the wintering Greylag and Greenland White-fronted Goose, and Whooper Swans, from Stabannan/Braganstown (inland from Castlebellingham) roost in Dundalk Bay.*

The site is internationally important for waterfowl (numbers in brackets refers to the average maximum over the period 1994/95 to 1997/98) because it regularly holds over 20,000 birds (up to 57,000 have been recorded) and supports over 1% of the North-West European/East Atlantic Flyway populations of Brent Goose (366), Bar-tailed Godwit (2,312) and Knot

¹¹ <https://www.npws.ie/protected-sites/sac/000455>

(11,948). Additionally, it is nationally important for Golden Plover (4,266), Great Crested Grebe (193), Greylag Goose (312), Shelduck (463), Mallard (657), Pintail (100), Red-breasted Merganser (148), Oystercatcher (6,940), Grey Plover (218), Ringed Plover (133), Wigeon (565), Dunlin (9,112), Black-tailed Godwit (754), Curlew (1,593), Lapwing (4,822), Greenshank (20) and Redshank (1,455). Both Golden Plover and Bar-tailed Godwit are Annex I species. The site has been designated a Special Protection Area (SPA) under the E.U. Birds Directive and it is also a designated Ramsar site.

This is a site of significant conservation value because it supports good examples of a range of coastal habitats listed on Annex I of the E.U. Habitats Directive, as well as large numbers of bird species, some of which are listed in the Birds Directive.”

5.3. Conservation Objectives of Dundalk Bay SAC

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,
- 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 Dundalk Bay SAC, to maintain or restore the favourable conservation condition for each of the qualifying interests of the site, were published by NPWS (2011) Version 1.0; 19/07/2011.

5.3.1. Potential Threats

The threats, pressures and activities¹² with impacts on the SAC are listed in Table 5-2.

¹² <https://www.npws.ie/sites/default/files/protected-sites/natura2000/NF000455.pdf>

Table 5-2 Threats, pressures and activities with impacts on Dundalk Bay SAC.

Rank	Threats & pressures (Code)	Threats and pressures	inside/outside/ both [i o b]
M	H05.01	garbage and solid waste	b
M	H01.06	diffuse pollution to surface waters due to transport and infrastructure without connection to canalization/sweepers	i
M	J02.04	flooding modifications	b
L	H04.02	nitrogen-input	b
M	J02.01.03	infilling of ditches, dykes, ponds, pools, marshes or pits	b
M	J02.12.01	sea defense or coast protection works, tidal barrages	b
L	H05	Soil pollution and solid waste (excluding discharges)	b
M	K01.01	erosion	b
H	I01	invasive non-native species	b
M	K02	biocenotic evolution, succession	i
M	G05.02	shallow surface abrasion/ mechanical damage to seabed surface	b
M	G01	outdoor sports and leisure activities, recreational activities	b
L	G01.01.01	motorized nautical sports	b
M	J02.01.02	reclamation of land from sea, estuary or marsh	b
L	G02	Sport and leisure structures	b
M	K04.01	competition	i
H	H01	pollution to surface waters (limnic, terrestrial, marine & brackish)	b
H	E03.03	disposal of inert materials	i
H	F02.03.01	bait digging / collection	b
M	J03.01	reduction or loss of specific habitat features	b
H	E03.01	disposal of household / recreational facility waste	i
M	F05	illegal taking/ removal of marine fauna	b
M	J03.02	anthropogenic reduction of habitat connectivity	b
M	J02.04.01	flooding	b
M	H02.06	diffuse groundwater pollution due to agricultural and forestry activities	b

Rank: H - High, M - Medium, L – Low

5.4. Brief Description of Dundalk Bay SPA

A synopsis of the SPA, as detailed by NPWS, is as follows¹³: -

“Dundalk Bay is a large open shallow sea bay with extensive saltmarshes and intertidal sand/mudflats, extending some 16 km from Castletown River on the Cooley Peninsula, in the north, to Annagassan/Salterstown in the south.

The extensive sand flats and mud flats have a rich fauna of bivalves, molluscs, marine worms and crustaceans which provides the food resource for most of the wintering waterfowl. The outer part of the bay provides excellent shallow-water habitat for divers, grebes and sea duck. In summer, it is thought to be a major feeding area for auks from the Dublin breeding colonies. The bay is used at night for roosting by wintering flocks of Greylag Goose, Greenland White-fronted Goose and Whooper Swan from Stabannan/Braganstown (inland of Castlebelligham) and other inland sites.

The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for the following species: Great Crested Grebe, Greylag Goose, Light-bellied Brent Goose, Shelduck, Teal, Mallard, Pintail, Common Scoter, Red breasted Merganser, Oystercatcher, Ringed Plover, Golden Plover, Grey Plover, Lapwing, Knot, Dunlin, Black-tailed Godwit, Bar-tailed Godwit, Curlew, Redshank, Black-headed Gull, Common Gull and Herring Gull. The E.U. Birds Directive pays particular attention to wetlands and, as these form part of this SPA, the site and its associated waterbirds are of special conservation interest for Wetland & Waterbirds.

The site is of international importance because it regularly supports an assemblage of over 20,000 wintering waterbirds. It also qualifies as a site of international importance for supporting populations of Light-bellied Brent Goose (370), Knot (9,710), Black-tailed Godwit (1,100) and Bar-tailed Godwit (1,950) - all figures, unless stated otherwise, are five year mean peaks for the period 1995/96 to 1999/2000. A variety of other species occur in numbers of national importance, i.e. Great Crested Grebe (303), Greylag Goose (435), Shelduck (522), Teal (538), Mallard (765), Pintail (117), Common Scoter (581 - five year mean peak for the period 2000/01 to 2004/05), Red-breasted Merganser (121), Oystercatcher (8,746), Ringed Plover (151), Golden Plover (5,967), Grey Plover (204), Lapwing (4,892), Dunlin (11,518), Curlew (1,264) and Redshank (1,659). Other wintering species which occur include Red-throated Diver, Great Northern Diver, Cormorant, Grey Heron, Little Egret, Mute Swan, Wigeon, Goldeneye, Greenshank and Turnstone.

The site also supports nationally important populations of three wintering gull species - Black-headed Gull (6,643), Common Gull (551) and Herring Gull (754).

In spring and autumn the site attracts a range of passage migrants, including Little Stint, Curlew Sandpiper and Ruff.

Dundalk Bay SPA is one of the most important wintering waterfowl sites in the country and one of the few that regularly supports more than 20,000 waterbirds. Four species occur in numbers of international importance and a further 19 species in numbers of national importance. The regular occurrence of Golden Plover, Bar-tailed Godwit, Red-throated Diver, Great Northern Diver and Little Egret is of particular note as these species are listed on Annex I of the E.U. Birds Directive. Dundalk Bay is a Ramsar Convention site and parts of Dundalk Bay SPA are designated as Wildfowl Sanctuaries.”

¹³ <https://www.npws.ie/protected-sites/spa/004026>

5.5. Conservation Objectives of Dundalk Bay SPA

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

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 objective for non-breeding birds of Dundalk Bay SPA are summarised below.

Objective 1: To maintain the favourable conservation condition of the non-breeding waterbird Special Conservation Interest species listed for Dundalk Bay 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 Dundalk Bay 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 8,136, 4,374 and 649 hectares respectively for subtidal, intertidal, and supratidal habitats, other than that occurring from natural patterns of variation.

5.5.1. Potential Threats

The threats, pressures and activities¹⁴ with impacts on the SPA are listed in Table 5-3 below.

Table 5-3 Threats, pressures and activities with impacts on Dundalk Bay SPA.

Rank	Threats & pressures (Code)	Threats and pressures	inside/outside/both [i o b]
H	D01.02	roads, motorways	o
M	D03.02	shipping lanes	i
H	E01	urbanised areas, human habitation	o
M	G01.02	walking, horse-riding and non-motorised vehicles	i
L	A04	grazing	i
M	J02.11	siltation rate changes, dumping, depositing of dredged deposits	i
M	F02.03	leisure fishing	i
M	E01.03	dispersed habitation	o
H	I01	invasive non-native species	i
M	A08	fertilisation	o
M	G01.01	nautical sports	i
M	E02	industrial or commercial areas	o
M	E03	discharges	i
M	J02.12	dykes, embankments, artificial beaches, general	i

Rank: H - High, M - Medium, L – Low

5.6. Likelihood of Potential Impacts on European Sites

The available information on European sites was reviewed to establish whether or not the works associated with the proposed scheme are likely to have a significant effect on the conservation objectives of the designated sites. The likelihood of impacts on the qualifying interests of the European sites identified in this report is based on information collated from the desk study, site surveys and other available existing information.

The likelihood of impacts occurring are established in light of the type and scale of the proposed scheme, 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.

¹⁴ <https://www.npws.ie/sites/default/files/protected-sites/natura2000/NF004026.pdf>

- 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 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 Qualifying Interest species) or indirectly through noise, vibration and increased activity associated with construction and operation.

5.7. Identification of Potential Impacts on European Sites

Dundalk Bay SAC

Dundalk Bay SAC covers a significant geographical area and the qualifying habitats for which it is designated are also spread widely throughout. For example, an area of approximately 4,375 hectares of mudflats and sandflats not covered by seawater at low tide is noted to be within the bay, a habitat listed with priority status on Annex I of the E.U. Habitats Directive. An Appropriate Assessment screening, under Article 6(3) of the Habitats Directive assessment under the Habitats Regulations, should 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 road scheme, either because they do not occur within the area likely to be affected or because of distance from the scheme, are listed as such in Table 5-4. Table 5-4 presents an overview of the potential for impacts on the habitats listed as features of interest within the SAC. As detailed in Section 5.1 above, Dundalk Bay SAC is designated for coastal and estuarine habitats only and is not designated for protected habitats or species generally found along watercourses such as alluvial woodlands, floating river vegetation, salmon, crayfish or otters for example. As such the SAC is not designated for species and habitats that may be highly sensitive to surface water contamination such as from silts or soils from road excavations.

Dundalk Bay SPA

Dundalk Bay SPA is designated for a range of wintering waders and wildfowl that frequent coastal estuaries. Direct impacts on the species associated with the SPA are not anticipated as there is no direct overlap of the N53 scheme with the SPA. Bird species associated with the SPA, such as Lapwing and Light-bellied Brent Goose for example, do feed in the wider landscape in fields outside the boundary of the SPA, however the N53 scheme is sufficiently remote (ca. 7.2km by land) that there is no risk of disturbance to waders and wildfowl using the SPA. It is considered that the location, scale and operation of the proposed road scheme is such that it will not contribute to direct impacts on bird species for which the SPA has been designated.

There is indirect connectivity from the N53 Road Scheme site to Dundalk Bay SAC/SPA through the tributaries of the Castletown and Fane Rivers, namely Carrickastuck Stream, Drumboat Stream and Inishkeen Stream. Therefore, there is the potential for the road scheme to impact the European sites within the bay during both the construction and operational phases of the project if the watercourses within vicinity of the new N53 route are impacted. Potential impacts on the 3 no. watercourses could be through a contamination event during the construction phase, or for example during the construction of drainage infrastructure or through hydrocarbon contamination from road traffic sources during the operation of the road. Dundalk Bay is noted to be ca. >10km downstream along the Castletown River and ca. >18km downstream along the Fane River.

Due to the significant distance from the N53 scheme to Dundalk Bay SAC/SPA and also due to the dilution factor that ca. >10km and ca. >18km of watercourse would present, significant impacts through

surface water pathways during the construction phase of the scheme on the ecological features of interests of Dundalk Bay SAC/SPA are not considered likely.

The proposed road design will include road drainage based on Sustainable Drainage Systems (SuDS) including attenuation for a 100-year flood event and 20% climate change and hydrocarbon interceptors prior to eventually discharging into the Carrickastuck Stream, Drumboat Stream and Inishkeen Stream. This function of SUDS design is to retain sediments and pollutants arising from road surfaces and regulate flows following rainfall events. During the operational phase of the proposed scheme the distance that surface water run-off will travel between the proposed scheme and the Dundalk Bay SPA is >10km and Dundalk Bay SAC is >12km. SuDS will be an integral part of the project. In light of the ruling of the CJEU in Case C323/17 and the judgment in the Irish High Court in Case [2019] IEHC 84, it should be noted that the surface water drainage system is in accordance with planning policy and sustainable development.

Given the nature, scale and location of the proposed scheme, it is considered that the operational phase of the proposed scheme will not lead to likely significant effects on the qualifying interests of Dundalk Bay SAC/SPA via hydrological pathways.

The construction of the new N53 scheme will involve significant amounts of earthworks activities including 'cut and fill' construction activities which have the potential to have a negative impact on local groundwater sources. It is considered that any potential impacts on groundwater sources in the area of the N53 Road Scheme, from either the construction or operational phases of the road, will not affect the qualifying interests of the European sites within Dundalk Bay due to the significant distance from the N53 route to Dundalk Bay which is noted to be 7.2km via land.

Due to either lack of direct or indirect connectivity or due to the significant distance of the scheme to any European site, it is considered that the N53 road scheme, either during the construction or operational phase of the project, will not result in negative impacts on any of the features of interest for which any of the noted SACs and SPAs have been designated.

Table 5-4 Screening of SAC's qualifying habitats for Dundalk Bay SAC.

Habitat	Comment	Screening Statement
Estuaries [1130]	<p>The environs of the proposed N53 road scheme are dominated by agricultural grassland.</p> <p>Estuarine habitat does not occur within or adjacent to the project site extents. Due to the distance from the road scheme site to Dundalk Bay, and the dilution factor presented by ca. >12km of watercourse, significant impacts on estuarine habitats of Dundalk Bay SAC are not anticipated.</p>	Screened out.
Mudflats and sandflats not covered by seawater at low tide [1140]	<p>The environs of the proposed N53 road scheme are dominated by agricultural grassland.</p> <p>Mud and sand habitat are not located on or close to the N53 Road scheme site. Due to the distance from the road scheme site to Dundalk Bay, and the dilution factor presented by ca. >12km of watercourse, significant impacts on the sand and mudflats of Dundalk Bay SAC are not anticipated.</p>	Screened out.
Perennial vegetation of stony banks [1220]	<p>The environs of the proposed N53 road scheme are dominated by agricultural grassland.</p> <p>This habitat does not occur within or adjacent to the N53 road scheme site. Due to the distance from the road scheme site to Dundalk Bay, and the dilution factor presented by ca. >12km of watercourse, significant impacts on the coastal habitats of Dundalk Bay SAC are not anticipated.</p>	Screened out.
Salicornia and other annuals colonising mud and sand [1310]	<p>The environs of the proposed N53 road scheme are dominated by agricultural grassland.</p> <p>This habitat does not occur within or adjacent to the N53 road scheme site. Due to the distance from the road scheme site to Dundalk Bay, and the dilution factor presented by ca. >12km of watercourse, significant impacts on the qualifying interests of Dundalk Bay SAC are not anticipated.</p>	Screened out.
Atlantic salt meadows (Glaucopuccinellietalia maritimae) [1330]	<p>The environs of the proposed N53 road scheme are dominated by agricultural grassland.</p> <p>This habitat does not occur within or adjacent to the N53 road scheme site. Due to the distance from the road scheme site to Dundalk Bay, and the dilution factor presented by ca. >12km of watercourse, significant impacts on the coastal habitats of Dundalk Bay SAC are not anticipated.</p>	Screened out.
Mediterranean salt meadows (Juncetalia maritimi) [1410]	<p>The environs of the proposed N53 road scheme are dominated by agricultural grassland.</p> <p>This habitat does not occur within or adjacent to the N53 road scheme site. Due to the distance from the road scheme site to Dundalk Bay, and the dilution factor presented by ca. >12km of watercourse, significant impacts on the coastal habitats of Dundalk Bay SAC are not anticipated.</p>	Screened out.

5.8. In-Combination Impacts

Louth County Development Plan 2015-2021 sets out policies and objectives for the development of County Louth. The plan aims to promote the sustainable development and improvement of the economic, environmental, cultural and social aspects of Louth. The Plan outlines the environmental policy of Louth County Council, which includes *'To promote and maintain the highest achievable standards of air, noise and water quality in the County'*.

The Plan also requires that any developments must be subject to AA process and that permitted developments comply with the requirements of the Water Framework Directive, the relevant River Basin Management Plans and the Habitats Directive. A Strategic Environmental Assessment (SEA) was prepared for the Plan and went through the Appropriate Assessment Process. The findings of which were integrated into the objectives of the Plan resulting in a plan that affords high level protection to the environment and European sites.

The N53 roadway has been subject to previous upgrades. The N53 Road Improvement Scheme – Barronstown to Newtownbalregan scheme has been completed and this 3.5km section of roadway located east of the proposed N53 Hackballscross to Rassan scheme is fully operational. No likely significant effects on any European sites are anticipated from the construction or operation of the proposed scheme. As such it is considered that the currently operational upgraded section of N53 roadway between Barronstown and Newtownbalregan will not act in combination with the proposed scheme to give rise to cumulative impacts on Dundalk Bay SAC/SPA or any other European site.

A search of Louth County Council Planning Register Map Viewer has been undertaken for planning applications submitted within the last 7 years in the vicinity N53 road scheme (last accessed 21/04/2021). This search identified a number of developments within the vicinity of the proposed N53 scheme, all of which are residential or farm related developments e.g. renovations/extensions etc. Based on the fact that all of these developments are small scale projects consisting of private property extension works, single dwelling houses and farm developments, no in-combination impacts which could give rise to cumulative impacts are anticipated on Dundalk Bay SAC/SPA or any other European site as a result of the proposed local plans and the construction and / or operation of the N53 road scheme.

It is considered that the construction or operation of the N53 road scheme will not result in negative impacts on any of the features of interest for which the SAC and SPA have been designated. In the absence of any potential impacts as a result of the road scheme there is no pathway for other projects to act in-combination with the N53 road scheme to give rise to cumulative effects on any European sites.

5.9. Likelihood of Significant Effects on European Sites

Due to the scope and nature of the proposed project, it is considered that the proposed N53 Hackballscross to Rassan Scheme, either alone or in combination with other plans or projects, will not result in likely significant effects on the Dundalk Bay SAC and Dundalk Bay SPA, or any other European site, in view of their conservation objectives.

5.10. 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 N53 Hackballscross to Rassan Scheme, either alone or in combination with other plans or projects, does not pose likely significant effects on European sites.

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

Should the scope, nature or extent of the proposed road scheme significantly 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	N53 Hackballscross to Rassan
Distance from designated site	ca. 7.2km via land and >10km downstream to Dundalk Bay SPA. ca. 8.6km via land and >12km downstream to Dundalk Bay SAC
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	Dundalk Bay SPA and Dundalk Bay SAC
Site designation status	Special Area of Conservation Special Protection Area for birds
Qualifying interests	See Table 5-1
Unit size	SAC 5234 ha (92.64% Marine Area) SPA 13237.9 ha (97.58% Marine Area)

3. Assessment Criteria

Other plans or projects which may have a cumulative impact	There are no likely impacts arising from the proposed scheme on the European sites and there are no other plans or projects ongoing at the same time that would contribute to cumulative impacts on the European sites. The proposed project will not act in combination with the activities identified as threats to the European sites to give rise to cumulative impacts. It is therefore considered 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.

3. Assessment Criteria

<p>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:</p> <ul style="list-style-type: none"> • Size and scale • 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 	<p>There are no likely potential impacts, whether direct, indirect or cumulative/in-combination, which are likely to give rise to adverse effects on the qualifying interest or the conservation objectives of any designated European Site</p>
<p>Describe any likely changes to the site arising as a result of:</p> <p>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</p>	<p>There are no likely changes to the site as a result of the proposed road scheme.</p> <p>There shall be no reduction of habitat area within European sites as a result of the proposed scheme.</p> <p>There shall be no habitat or species fragmentation or reduction in species density as a result of the scheme.</p>
<p>Describe any likely impacts on the European site as a whole in terms of:</p> <ul style="list-style-type: none"> • Interference with the key relationships that define the structure of the site • Interference with key relationships that define the function of the site. 	<p>There are no likely changes to the site as a result of the proposed scheme works with respect to the key relationships that define the structure or function of the SACs/SPA.</p>
<p>Provide indicators of significance as a result of the identification of effects set out above in terms of:</p> <ul style="list-style-type: none"> • Loss • Fragmentation • Disruption • Disturbance • Change to key elements of the site 	<p>There is no potential for impact to qualifying interests of the SACs/SPA given the nature and scale of the scheme.</p>
<p>Describe from the above those elements of the project or plan, or</p>	<p>No significant impacts are likely as a result of the proposed scheme.</p>

3. Assessment Criteria

combination of elements, where the above impacts are likely to be significant or where the scale of magnitude of impacts is not known.

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 – European form, site synopsis, SAC/SPA reports etc. National Biodiversity Data Centre online data. EPA Envision Mapping system; Google maps; Bing Maps etc. Louth County Council Planning GIS Viewer Site surveys	Screening	Atkins 150 Airside Business Park, Lakeview Drive, 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.
- Louth County Council Planning Dept. <https://viewer.myplan.ie/>
- Inland Fisheries Ireland. Castletown River Catchment Factsheet:2017/4
- Northern Ireland, Dept. of Environment, ASSI Citation documents
- Joint Nature Conservation Committee: <https://jncc.gov.uk/jncc>
- NPWS (2014) Site Synopsis; Dundalk Bay SPA Site Code: 004026
- NPWS (2014) Site Synopsis; Dundalk Bay SAC Site Code 000455 Rev13.
- NPWS (2011). Dundalk Bay SAC, Dundalk Bay SPA Conservation Objectives
- NPWS (2011). Dundalk Bay SPA, Conservation objectives Supporting document
- NPWS (2011). Dundalk Bay SAC, Conservation objectives supporting document – costal habitats.
- Natura 2000 Standard Data Form Dundalk Bay SAC
- Natura 2000 Standard Data Form Dundalk Bay SPA

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