



MERC Consultants
environmental and conservation services

Technical Report:

Screening for Appropriate Assessment

FS00785: Irish Water Site Investigations for Sewerage Scheme, Roundstone, Co. Galway

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1. Introduction

1.1 Project Overview

Irish Water has submitted a Foreshore Licence application for Site Investigation (SI) works, consisting of 3 No. rotary core boreholes and sampling, within the foreshore at Roundstone, County Galway (the proposed project). The SI works form part of the preliminary investigations to help inform the design of the Roundstone Sewerage Scheme which is being advanced by Irish Water. The Roundstone Sewerage Scheme is required to bring the agglomeration of Roundstone into compliance with the EU Wastewater Directive.

The foreshore application is supported by a report for Screening for Appropriate Assessment.

1.2 Application Documents

Irish Water has submitted the following documents as part of the application:

- Application Form
- Foreshore Location map
- Foreshore Licence map: Site investigations
- Report for Screening for Appropriate Assessment (hereafter, referred to as **Applicant-SAA**)
- EIA Screening report*
- Site selection report

The proposed project was advertised in the Connacht Tribune and Irish Examiner Newspapers on 29th May 2020. The application documents listed above were available to view on the website of the Department of Housing, Planning and Local Government from 29th May 2020.

The reports listed above, with the exception of the EIA Screening report, were considered as part of this technical review, in addition to observations from prescribed bodies and public consultation and the applicants' responses to these to these observations.

**It should be noted that the EIA Screening report attached to the Foreshore Licence application does not relate to the proposed project.*

1.3 Relevant legislation

All EU Member States are obliged to establish a network of sites of conservation importance known as the Natura 2000 network. The network is made up of Special Areas of Conservation (SAC's) established under the EU Habitats Directive (92/43/EEC) and Special Protection Areas (SPA's) established under Directive (2009/147/EC). Under Article 6 (3) of the Habitats Directive, Member States are required to consider the potential effects of any project or plan on the conservation objectives of a SAC or SPA before a decision can be made to allow that project or plan to proceed.

Appropriate Assessment (AA) is the process whereby the potential impacts of a project or plan are assessed in view of the site's conservation objectives. The first step in the process is to conduct AA screening to determine, on the basis of a preliminary assessment and objective criteria, whether the project or plan, alone or in combination with other projects or plans could have significant effects on the conservation objectives of a European site. Where significant effects are likely, uncertain or unknown at the screening stage a Natura Impact Statement is required to enable a consent authority to carry out an Appropriate Assessment.

The European Communities (Birds and Natural Habitats) Regulations 2011 (as amended) outlines the requirements for Screening for AA under Part 5 Regulation 42(1) and 42(2), as follows:

42.(1) *A screening for Appropriate Assessment of a plan or project for which an application for consent is received, or which a public authority wishes to undertake or adopt, and which is not directly connected with or necessary to the management of the site as a European Site, shall be carried out by the public authority to assess, in view of best scientific knowledge and in view of the conservation objectives of the site, if that plan or project, individually or in combination with other plans or projects is likely to have a significant effect on the European site.*

(2) *A public authority shall carry out a screening for Appropriate Assessment under paragraph (1) before consent for a plan or project is given, or a decision to undertake or adopt a plan or project is taken*

This report provides a technical review of the proposed project including an assessment of the Applicant-SAA and supporting documents submitted in support of the Foreshore licence application. As such it represents a Screening for Appropriate Assessment as outlined under section 42 (1) of the European Communities (Birds and Natural Habitats) Regulations 2011 (as amended).

2. Technical Review

2.1 Methodology

This technical review report presents the findings of MERC's review and assessment of Irish Waters Applicant-SAA and supporting documents for Site Investigation (SI) works within the foreshore at Roundstone, County Galway.

In addition to a review of the applicant-SAA and supporting documents, a site visit was conducted on 19/3/2021 to obtain an overview of the proposed project site relative to the receiving environment.

This report has been prepared with reference to the following European Directives, national legislation and guidance on the appropriate assessment of projects and plans with regard to the implementation of the provisions of Article 6(3) and (4) of the EU Habitats Directive 92/43/EEC.

- *Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild flora and fauna.* Official Journal of the European Communities.
- *Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds* (codified version).
- *European Communities (Birds and Natural Habitats) Regulations 2011.* SI No. 477 of 2011.
- *Managing Natura 2000 sites: The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC.* European Commission 2018. 7621 final. Office for Official Publications of the European Communities, Luxembourg.
- *Assessment of plans and projects significantly affecting Natura 2000 sites; Methodological Guidance on the provisions of Articles 6(3) and (4) of the Habits Directive 92/43/EEC.* European Commission, 2002;
- *Appropriate Assessment of Plans and Projects in Ireland, Guidance for Planning Authorities.* DoEHLG, 2009. Revision 2010.

2.2 Consultation

A public notice concerning this application was published in the Connacht Tribune and Irish Examiner Newspapers on 29th May 2020. The application documents were made available to view during the statutory consultation period on the website of the Department of Housing, Planning and Local Government from 29th May 2020 at:

<https://www.gov.ie/planning/foreshore/applications/irish-water-site-investigations-sewerage-scheme-roundstone-bay>

Following updates to the Departments website, after the statutory consultation period, the relevant documentation is currently (April 1st 2021) available to view at:

<http://www.housing.old.gov.ie/planning/foreshore/applications/irish-water-site-investigations-sewerage-scheme-roundstone-bay>

Or at:

<https://www.gov.ie/en/foreshore-notice/d5f68-irish-water-site-investigations-for-sewerage-scheme-roundstone-bay-galway/?referrer=http://www.gov.ie/en/publication/d823e-irish-water-site-investigations-for-sewerage-scheme-roundstone-bay-galway/>

The prescribed body consultation (Appendix 1) did not raise any significant queries or comments related to appropriate assessment or the protection of European sites and raised no objections to the proposed work provided it was conducted in accordance with the application documents submitted with the Foreshore Licence Application.

A total of thirteen (13) public submission were made in relation to the proposed project. A number of these submissions related to the implementation of Article 6(3) of the Habitats Directive or other matters relating to the Applicant-SAA (Appendix 2). Other comments were unrelated to the appropriate assessment process and have not been considered further in this report. Each of the observations, related to appropriate assessment, together with the applicant's response were considered as part of this technical review.

3. Screening for Appropriate Assessment

3.1 Screening for AA Check list

A screening checklist (European Commission, 2002) has been prepared (table 3.1) which summarises the information required to complete the Screening for AA for the proposed Irish Water project for Site Investigation (SI) works within the foreshore at Roundstone, County Galway.

Table 3.1 Information checklist (after EU 2002)

Are these known or available	Yes/No
Size, scale, area land-take etc.	Yes. The text of the Applicant-SAA and the associated foreshore location and foreshore licence maps provide the required information and sufficient detail and context to understand the scale, scope and area of the proposed project.
Physical changes that will flow from the project or plan (From excavation, piling, dredging etc.)	Yes. The likely physical changes that will take place during the implementation of the project are described in section 2.1.1 of the Applicant-SAA.
Resource requirements (water abstraction etc.)	Yes. Resource requirements are adequately described in the Applicant-SAA.
Emissions and wastes (disposal to land, water or air)	Yes. Likely emissions are adequately described in the Applicant-SAA
Transportation requirements	Yes. Transportation is principally confined to the mobilisation of plant, equipment and personnel to the site in order to facilitate the implementation of the project.
Duration of Construction, Operation, Decommissioning etc.	Yes. The duration of the project is fully detailed in the Applicant-SAA.
Plan implementation period	Yes. The timing of the proposed project is detailed in the Applicant-SAA.
Distance from Natura 2000 Site or key features of the site.	Yes. All Natura 2000 sites within the zone of Influence of the proposed project are documented in the the Applicant-SAA. These sites are further considered in table 3.2 below.
Cumulative Impacts with other Projects or Plans	Yes. Plans or projects which have been completed, approved but uncompleted, or proposed (but not yet approved) were documented in the Applicant-SAA.

	A search of the Foreshore licence applications of Department of Housing, Local Government and Heritage and Galway County Councils map-based planning search was also carried out as part of MERC's technical assessment of the proposed project.
Other, as appropriate	The Applicant-SAA has not provided a detailed description of the receiving environment at the site of the proposed works or its environs. This information was obtained as part of this technical review.

3.2 Management of Natura 2000 site/s

Plans or projects that are directly connected with or necessary to the management of a Natura 2000 site do not require AA. The proposed project is not directly connected with or necessary for the management of a Natura 2000 site.

3.3 Description of the project

The proposed project entails the creation of three rotary boreholes on the foreshore at Roundstone. A small tracked drilling rig will be used for this purpose. The required working area for the drilling rig is a minimum of 4m by 2m.

To access the foreshore the rig will either track down onto the shore at low tide through a gap in the wall or planks will be placed to allow the rig to track over the wall. All works will take place at low tide to allow access to the works area.

Due to the physical nature of the foreshore at this location there is no requirement for a platform to ensure rig stability, or to prevent the rig from sinking. The rig will be removed from the foreshore before each high tide to prevent the plant from being inundated. The cores will be extracted via rotary core drilling. To lubricate the drill, water will either be brought to the works area by bowser or provided by connecting a hose into a nearby hydrant. The bowser will remain on the pier and the water will be piped to the works area through a hose. The water will be used to flush the borehole, to cool the heat generated by the drilling. This is expected to take between 3,000 and 5,000ltr total across all three boreholes. The lubrication will also damp down any dust associated with the works. The majority of this water will be absorbed into the ground surrounding the borehole. There may be a small amount of arisings from the borehole, however these will be contained within the works area. Following their extraction, the cores will be laid on to plastic sheeting and then placed into core boxes. The cores and any casings will then be removed from the site, and the holes allowed to refill naturally.

3.4 Receiving environment

A site visit was conducted by MERC on 19/3/2021 to obtain an overview of the proposed project site relative to the receiving environment.

The proposed project site is located on an area on intertidal reef (EU habitat code 1170) and mixed sediment adjacent to the R341 public road at Roundstone Co. Galway. The intertidal area is characterised by fucoids and *Ascophyllum nodosum* on boulders and cobble interspersed with coarse sediments. Roundstone Bay, to the north west of Bertraghboy Bay, is a relatively sheltered, shallow

embayment to the west of Inishnee Island which is accessed via a public road and bridge to the north of the proposed project site.

Mapping of the subtidal area of Bertraghboy Bay conducted in 2010 (MERC, 2010) indicated that the subtidal habitat is characterised by extensive maërl communities, in places represented by large patches of dense free living maërl with an associated rich epifauna. This community is present within Roundstone Bay in mosaic with outcropping rocks and sediment biotopes.

3.4 Identification of the European site/s

3.4.1 Approach taken by the applicant

To identify the appropriate European sites to be considered within the Applicant-SAA potential project related effects were described as:

- Physical disturbance due to the rig tracking up and down the foreshore, and due to the borehole drilling itself
- Noise and vibration effects from the drilling
- A small amount of arisings from the borehole in the immediate footprint of the rig
- Hydrocarbon spills from plant

A Zone of Influence (ZOI) for each of the aforementioned possible effects and the rationale for the decisions taken was provided (table 2.1 of the Applicant-SAA) and is summarised in table 3.2 below. With due regard to the scale and scope of the project including a review of the specifications and operation of the proposed drilling rig, this technical review concurs with the assessment of Likely Significant Effects (LSE) and the ZOI documented in the Applicant-SAA.

Table 3.2. Zone of influence

Potential effect	Zone of impact
Physical disturbance	Footprint of the proposed works
Noise and vibration	500m
Borehole arisings	Footprint of borehole rig
Hydrocarbon spill	90m

The applicant identified the following sites “as having Qualifying Interests/Special Conservation Interests with potential to occur within the potential ZOI for the proposed works”:

- Connemara Bog Complex SAC (002034)
- Kilkieran Bay and Islands SAC (002111)
- West Connacht Coast SAC (002998)

3.4.2 Qualifying interests/ special Conservation interests

The applicant has only considered the Qualifying Interests/Special Conservation Interests which they consider have the potential to be impacted in their Applicant-SAA. Additional Qualifying Interests/Special Conservation Interests of the relevant European sites are not provided and no indication as to whether they have been considered is given.

The following Qualifying Interests are listed in the Applicant-SAA as having the potential for impact:

Connemara Bog Complex SAC (002034)

- *Lutra lutra* (otter) [1355]
- Salmon [1106]

Kilkieran Bay and Islands SAC (002111)

- *Lutra lutra* (otter) [1355]
- *Phoca vitulina* (harbour seal) [1365]

West Connacht Coast SAC (002998)

- *Tursiops truncatus* (common bottlenose dolphin) [1349]

This Screening for Appropriate Assessment has reviewed the scope of works for the proposed project and LSE within the ZOI. We have carried out a separate review of the relevant NPWS mapping for European sites within the ZOI (see table 3.3) and assessed the LSE relative to these sites based on the presence of a source-path-receptor link. This assessment has added a number of species associated with Connemara Bog Complex SPA (004181) and Slyne Head to Ardmore Point Islands SPA (004159) as having the potential for impact. While it is recognised that bird species are highly mobile and wide ranging, we have not considered it likely that species from more distant SPA's have the potential to be impacted by a project at this location and of this scale and scope.

Table 3.3 European sites and Qualifying Interests/Special Conservation Interests within the Zone of Influence of the proposed project.

Site name & code	Distance from study area (km)	Site specific conservation objectives (Yes/No)	Qualifying Interests/Special Conservation Interests	Potential for connectivity	Potential source of Impact
Connemara Bog Complex SAC (002034)	0.47 (nearest point) 3.0 (hydrologically)	Yes	Coastal lagoons [1150]	No	None: No connectivity identified. Habitat outside of the ZOI.
			Reefs [1170]	No	None: No connectivity identified. Habitat outside of the ZOI.
			Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae) [3110]	No	None: No connectivity identified. Habitat outside of the ZOI.
			Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or Isoeto-Nanojuncetea [3130]	No	None: No connectivity identified. Habitat outside of the ZOI.
			Natural dystrophic lakes and ponds [3160]	No	None: No connectivity identified. Habitat outside of the ZOI.
			Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation [3260]	No	None: No connectivity identified. Habitat outside of the ZOI.
			Northern Atlantic wet heaths with <i>Erica tetralix</i> [4010]	No	None: No connectivity identified. Habitat outside of the ZOI.
			European dry heaths [4030]	No	None: No connectivity identified. Habitat outside of the ZOI.
			Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae) [6410]	No	None: No connectivity identified. Habitat outside of the ZOI.
			Blanket bogs (* if active bog) [7130]	No	None: No connectivity identified. Habitat outside of the ZOI.
			Transition mires and quaking bogs [7140]	No	None: No connectivity identified. Habitat outside of the ZOI.
			Depressions on peat substrates of the Rhynchosporion [7150]	No	None: No connectivity identified. Habitat outside of the ZOI.

			Alkaline fens [7230]	No	None: No connectivity identified. Habitat outside of the ZOI.
			Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles [91A0]	No	None: No connectivity identified. Habitat outside of the ZOI.
			<i>Euphydryas aurinia</i> (Marsh Fritillary) [1065]	No	None: No connectivity identified. Species outside of the ZOI.
			<i>Salmo salar</i> (Salmon) [1106]	Yes	Yes: Impacts on water quality (hydrocarbon spills), noise and vibration
			<i>Lutra lutra</i> (Otter) [1355]	Yes	Yes: Disturbance, noise and vibration
			<i>Najas flexilis</i> (Slender Naiad) [1833]	No	None: No connectivity identified. Species outside of the ZOI.
Kilkieran Bay and Islands SAC (002111)	8.26 (hydrologically)	Yes	Mudflats and sandflats not covered by seawater at low tide [1140]	Yes	None: No connectivity identified. Habitat outside of the ZOI.
			Coastal lagoons [1150]	No	None: No connectivity identified. Habitat outside of the ZOI.
			Large shallow inlets and bays [1160]	No	None: No connectivity identified. Habitat outside of the ZOI.
			Reefs [1170]	No	None: No connectivity identified. Habitat outside of the ZOI.
			Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>) [1330]	No	None: No connectivity identified. Habitat outside of the ZOI.
			Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410]	No	None: No connectivity identified. Habitat outside of the ZOI.
			Machairs (* in Ireland) [21A0]	No	None: No connectivity identified. Habitat outside of the ZOI.
			Oligotrophic to mesotrophic standing waters with vegetation of the <i>Littorelletea uniflorae</i> and/or <i>Isoeto-Nanojuncetea</i> [3130]	No	None: No connectivity identified. Habitat outside of the ZOI.
			Lowland hay meadows (<i>Alopecurus pratensis</i> , <i>Sanguisorba officinalis</i>) [6510]	No	None: No connectivity identified. Habitat outside of the ZOI.
			<i>Lutra lutra</i> (Otter) [1355]		Yes: Disturbance, noise and vibration
			<i>Phoca vitulina</i> (Harbour Seal) [1365]		Yes: Disturbance, noise and vibration
			<i>Najas flexilis</i> (Slender Naiad) [1833]	No	None: No connectivity identified. Species outside of the ZOI.

West Connacht Coast SAC (002998)	26 (hydrologically)	Yes	<i>Tursiops truncatus</i> (Common Bottlenose Dolphin) [1349]	Yes	Yes: Disturbance, noise and vibration
Connemara Bog Complex SPA (004181)	2.2 (as the crow flies)	No (Generic)	Cormorant (<i>Phalacrocorax carbo</i>) [A017]	Yes	Yes: Disturbance
			Merlin <i>Falco (columbarius)</i> [A098]	No	None: No connectivity identified. Species outside of the ZOI.
			Golden Plover (<i>Pluvialis apricaria</i>) [A140]	No	None: No connectivity identified. Species outside of the ZOI.
			Common Gull (<i>Larus canus</i>) [A182]	Yes	Yes: Disturbance
Slyne Head to Ardmore Point Islands SPA (004159)	2.1 (as the crow flies)	No (Generic)	Barnacle Goose (<i>Branta leucopsis</i>) [A045]	No	Yes: Disturbance
			Sandwich Tern (<i>Sterna sandvicensis</i>) [A191]	No	Yes: Disturbance
			Arctic Tern (<i>Sterna paradisaea</i>) [A194]	No	Yes: Disturbance
			Little Tern (<i>Sterna albifrons</i>) [A195]	No	Yes: Disturbance

Table 3.4 Summary of sites screened for possible likely significant effects.

Site name	Designated feature with potential for impact	Potential pressures from proposed activities	Attribute	Screening conclusion
Connemara Bog Complex SAC	<i>Salmo salar</i> (Salmon) [1106]	Underwater noise change	Distribution: extent of anadromy	No potential for LSE. The ZOI is too limited to provide a source-path-receptor link to migrating salmon accessing rivers for which salmon are a qualifying interest. The ZOI is too limited and the works of too short a duration to result in the creation of artificial barriers (noise) that could impact migration to accessible rivers.
			Adult spawning fish	No potential for LSE
			Salmon fry abundance	No potential for LSE. River habitat outside of the ZOI
			Out-migrating smolt abundance	No potential for LSE. Out migrating route outside of the ZOI
			Number and distribution of redds	No potential for LSE. Distribution of redds outside of ZOI.
			Water quality	No potential for LSE. River habitat outside of the ZOI.
	<i>Lutra lutra</i> (Otter) [1355]	Disturbance	Distribution	No potential for LSE. Any disturbance of otter which may utilise this area would be short lived and temporary.
			Extent of terrestrial habitat	No potential for LSE: habitat outside of the ZOI.
			Extent of marine habitat	No potential for LSE: No habitat loss will occur.
			Extent of freshwater (river) habitat	No potential for LSE: habitat outside of the ZOI.

			Extent of freshwater (lake/lagoon) habitat	No potential for LSE: habitat outside of the ZOI.
			Couching sites and holts	No potential for LSE: habitat not suitable for couching sites and holts.
			Fish biomass available	No potential for LSE: No loss of available fish biomass will occur.
Kilkieran Bay and Islands SAC	<i>Lutra lutra</i> (Otter) [1355]	Disturbance	As above for Connemara Bog Complex SAC. Additional: Barriers to connectivity: No potential for LSE: No barriers to connectivity will occur.	
	<i>Phoca vitulina</i> (Harbour Seal) [1365]	Disturbance, noise and vibration	Access to suitable habitat	No potential for LSE. No artificial barriers will be created.
			Breeding behaviour	No potential for LSE. Works site outside of recorded breeding sites.
			Moulting behaviour	No potential for LSE. No moult haul-out sites within 500m of proposed works.
			Resting behaviour	As above for.
			Disturbance	No potential for LSE. Any disturbance would be short lived (days) and temporary. Area is adjacent to a main road/village with existing levels of disturbance.
West Connacht Coast SAC	<i>Tursiops truncatus</i> (Common Bottlenose Dolphin) [1349]	Disturbance, noise and vibration	Access to suitable habitat	No potential for LSE. Direct effects such as the creation of artificial barriers caused by sound is highly unlikely due to the limited (500m) distance of the ZOI re noise generation. Also, noise level resulting from the coring is documented as being in the range of 127 to 133dB re 1µPa RMS. This range is below the level at which temporary threshold shift is known to occur in marine

				mammal groups with High Frequency hearing such as dolphins
			Disturbance	No potential for LSE. Work will be confined to the intertidal area only.
Conservation objectives (generic): To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA				
<ul style="list-style-type: none">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, andThe natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future, andThere is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis				
Connemara Bog Complex SPA (004181)	Cormorant (<i>Phalacrocorax carbo</i>) [A017]	Disturbance	While there may be temporary disturbance of individuals this is not likely to impact their fitness and will not lead to any population-level impacts at the SPAs considered. Whilst there is potential connectivity between the project site and SPAs within foraging range, it is considered likely significant effects on the qualifying interests are not possible as the disturbance will be temporary. Furthermore, the site is adjacent to a public road (being the main route in and out of Roundstone village) with frequent traffic and therefore the site is already subject to a high degree of disturbance. In addition, the intertidal area is not suitable foraging habitat for the species listed here.	
	Common Gull (<i>Larus canus</i>) [A182]	Disturbance	As above	
Slyne Head to Ardmore Point Islands SPA (004159)	Barnacle Goose (<i>Branta leucopsis</i>) [A045]	Disturbance	As above	
	Sandwich Tern (<i>Sterna sandvicensis</i>) [A191]	Disturbance	As above	
	Arctic Tern (<i>Sterna paradisaea</i>) [A194]	Disturbance	As above	
	Little Tern (<i>Sterna albifrons</i>) [A195]	Disturbance	As above	

3.5 Impact prediction

Table 3.4 Checklist for impact prediction

Sources consulted	Assessment
Natura 2000 Site boundaries, Conservation objectives and supporting documents	The NPWS current mapping has been used to identify all European sites within the ZOI of the proposed project. Relevant NPWS Conservation objectives have been relied upon by the applicant in their screening report.
Existing and historical maps	Mapping showing the location of the proposed project is shown in the applicants Foreshore Location map and Foreshore Licence map: Site investigations. Drawing references: MMD-386624-C-DR-03-XX-1400 and MMD-386624-C-DR-03-XX-1402 The Applicants-SAA report provides an indicative overview showing the location of the relevant European sites within the ZOI of the proposed project. This was confirmed in this Appropriate Assessment Screening by plotting the coordinates for the proposed bore holes given in the Foreshore Licence map: MMD-386624-C-DR-03-XX-1400 in ESRI ARCGIS against the most recent NPWS Natura Site boundary mapping.
Land use and other relevant existing plans	A review of planning applications published on Galway County Councils map-based planning search website and foreshore licence applications published on the Department of Housing, Local Government and Heritage foreshore licence applications website was conducted.
Existing site survey material	The Applicants-SAA considered available data related to the use of the area by Harbour seal ¹ . National Biodiversity Data Centre records for common seal and bottlenose dolphin were obtained. Additional available information reviewed and considered in this technical review included: <ul style="list-style-type: none"> • Site specific conservation objectives for the relevant European sites. • NPWS Conservation objectives supporting documents. • NPWS unpublished marine surveys.
Existing data on hydrology	No hydrological data was presented in the Applicants-SAA report. A review of the Admiralty charts for Bertraghboy Bay was carried out for this technical review.
Existing data on key species	Existing data on the use of the site by seals and bottle nose dolphin was presented in the Applicants-SAA report. Additional data sources (unpublished NPWS report) were examined as part of this technical review.
Environmental statements of similar projects or plans elsewhere.	No information from similar projects was provided.
State of the Environment reports	Not applicable.
Site management plans	Not applicable.
Geographical Information Systems	Coordinates of the three bore holes were provided. Published shapefiles for European sites were examined.
Site history files	Files related to planning applications were consulted relative to the potential for in-combination effects
Other, as appropriate	N/A

¹ Cronin, M., Duck, C., Ó Cadhla, O., Nairn, R., Strong, D. & O' Keeffe, C. (2004). Harbour seal population assessment in the Republic of Ireland: August 2003. Irish Wildlife Manuals, No. 11. National Parks & Wildlife Service, Department of Environment, Heritage and Local Government, Dublin, Ireland.

3.6 Screening for Appropriate Assessment Matrix

Brief description of the Project or Plan
<p>Irish Water has proposed a project to carry out Site Investigation (SI) works, consisting of 3 No. rotary core boreholes and sampling, within the foreshore at Roundstone, County Galway. The SI works form part of the preliminary investigations to help inform the design of the Roundstone Sewerage Scheme which is being advanced by Irish Water. The Roundstone Sewerage Scheme is required to bring the agglomeration of Roundstone into compliance with the EU Wastewater Directive. This report relates solely to the proposed SI's.</p> <p>The proposed project entails the creation of three rotary boreholes on the foreshore at Roundstone. A small tracked drilling rig will be used for this purpose. The required working area for the drilling rig is a minimum of 4m by 2m. To access the foreshore the rig will either track down onto the shore at low tide through a gap in the wall or planks will be placed to allow the rig to track over the wall. All works will take place at low tide allow access to the works area.</p>
Brief description of the Natura 2000 site
<p>A total of 3 Natura 2000 sites (table 3.3 of this assessment) were screened relative to their location within the ZOI of the proposed project. These sites were documented as having a qualifying interest within the ZOI of the proposed project and were further assessed for their potential for LSE's. See table 3.4 of this report.</p>
Assessment criteria
<p>Description of any likely direct, indirect or secondary impacts of the project (either alone or in combination with other plans or projects) on the Natura 2000 site by virtue of:</p>
<p>Size and scale</p>
<p>Three boreholes will be drilled within the intertidal area. The holes will each be to a maximum depth of 3m and 100mm in diameter. The working area for the drill rig will be 4m by 2m.</p>
<p>Land take</p>
<p>There will be no land take. All works will take place outside of any European site. The holes drilled will backfill naturally.</p>
<p>Distance from the Natura site or key features of the site</p>
<p>Distances to European sites with the ZOI of the proposed project are provided in table 3.3 of this report.</p>
<p>Resource requirement (water abstraction etc.)</p>
<p>The only resource required is water to lubricate the drill rig. This will be brought to the site in a browser or taken from the existing public water supply.</p>
<p>Emissions (disposal to land, water or air)</p>
<p>No significant emissions are considered likely. Any dust created through the drilling process will be damped down by water. The scale and type of plant and equipment being employed is too small for the potential for significant hydrocarbon spillage which could impact any European site through hydrological connectivity.</p>
<p>Excavation requirements</p>
<p>Three boreholes will be drilled within the intertidal area. The holes will each be to a maximum depth of 3m and 100mm in diameter. The core extracted will be removed for analysis.</p>
<p>Transportation requirements</p>
<p>No significant transportation requirements. The works site is adjacent to the public road.</p>
<p>Duration of construction, operation, decommissioning, etc.</p>

Works will be approximately 5 days.

Description of any likely changes to the site arising as a result of:

Reduction of habitat area

There will be no reduction in habitat area inside or outside a European site.

Disturbance to key species

No potential for disturbance to key species has been identified.

Habitat or species fragmentation

No potential for habitat or species fragmentation has been identified.

Reduction in species density

No potential for any reduction in species density has been identified.

Changes in key indicators of conservation value

No changes in the key indicators of conservation value of any European site have been identified.

Climate Change

No project related effects on climate change have been identified.

Describe any likely impacts on the Natura 2000 site as a whole in terms of:

Interference with the key relationships that define the structure of the site.

No interference with the key relationships that define the structure of any European site have been identified.

Interference with key relationships that define the function of the site.

No interference with the key relationships that define the function of any European site have been identified.

Provide indicators of significance as a result of the identification of effects set out above in terms of:

Loss

N/A

Fragmentation

N/A

Disruption

N/A

Disturbance

N/A

Change to key elements of the site (e.g., water quality etc.)

N/A

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 or magnitude of impacts is not known.

The scale and magnitude of the project is fully known. No elements of the proposed project, alone or in combination with other projects or plans, is considered likely to result in any significant impacts on the features of interest or Conservation objectives of any European site.

4. Findings of no Significant Effects Report

Finding of no significant effects
<p>Name of project or plan Irish Water Site investigations. Roundstone, Co. Galway</p>
<p>Name and Location of Natura 2000 sites See table 3.3 of this report.</p>
<p>Description of the project or plan See section 3.3 of this report.</p>
<p>Is this project or plan directly connected with or necessary to the management of the sites (provide details)? No.</p>
<p>Are there other projects or plans that together with the project or plan being assessed could affect the sites (provide details)? No. Project related effects will be confined to the ZOI of the proposed project. For a cumulative effect to occur between the proposed project and additional projects identified a common pressure-receptor pathway would have to exist.</p> <p>The Applicants-SAA report noted small scale domestic renovations/extensions to existing dwelling which do not have the potential for in-combination effects due to the absence of a common pressure-receptor pathway. Other proposed developments identified include planning ref: 191902 for an upgrade to an existing WwTP at Michael Killeen Park, approximately 800m south of the proposed project site. Similarly, there is no common pressure-receptor pathway associated with this project.</p> <p>As noted in the Applicants-SAA, the untreated agglomeration study has identified Roundstone as one of a number of locations in Co. Galway currently discharging untreated waste water into coastal waterbodies. Ultimately plans for a new wastewater treatment plant (WwTP) and associated infrastructure may be submitted for the construction of this new WwTP. Such a WwTP will be subject to a separate assessment under Article 6(3) of the EU Habitats Directive. However, regardless of the location of this new WwTP, no potential for in-combination impacts in associated with the proposed project are possible due to the limited scale, scope and location of the site investigations and lack of any direct or indirect impacts, as a result of it, on the conservation objectives of any European site.</p>
The assessment of significance of effects
<p>Describe how the project of plan (alone or in combination) is likely to affect the Natura 2000 site. Temporary disturbance to marine mammals within the ZOI of the proposed project may occur. However, it is not considered that such temporary disturbance has the potential to lead to any impacts of the conservation objectives of these species.</p>
<p>Explain why these effects are not considered significant. The proposed project seeks to create three (3) bore holes to a maximum depth of 3m and 100mm in diameter on the foreshore in any area of intertidal reef. These bore holes will back fill naturally on completion of the proposed works. A source-path-receptor model, to identify the ZOI within which European sites with the potential to be impacted lie, was considered appropriate and reflects current best practice. The same source-path-receptor model was used to identify qualifying interests/special conservation interests likely to be affected by project related impacts within those European sites identified.</p> <p>The Appropriate Assessment Screening identified the following receptors which could potentially be affected by the proposed project and could be the Qualifying Interests of Natura 2000 sites as:</p>

- *Lutra lutra* (otter) [1355]
- Salmon [1106]
- *Phoca vitulina* (harbour seal) [1365]
- *Tursiops truncatus* (common bottlenose dolphin) [1349]

Fish (Salmon)

Salmon are a Qualifying Interest for SACs outside of the ZOI of the proposed project but which may pass through the proposed project area during the migration phase of their life cycle. However, due to the temporary timescale of the works (5 days) and highly localised ZOI (500m) relative to noise and vibration impacts this is considered to be insignificant and highly unlikely to lead to any significant impacts on the conservation objectives of Salmon within the relevant European sites.

Marine mammals (cetacean, pinniped and otter)

Potential impacts resulting from underwater noise changes and disturbance due to the creation of bore holes with the potential to effect marine mammals associated with European sites have been assessed. Direct effects resulting from noise and disturbance is considered highly unlikely due to the highly limited ZOI and low level of noise and disturbance relative to the hearing sensitivity of harbour seal and bottlenose dolphin. No impacts on otters are considered possible due to the short duration of the works and lack of any impact on the existing habitat. See table 3.3 for further detail.

Therefore, significant impacts on the conservation objectives of SACs associated with any marine mammal are not anticipated.

List of agencies consulted.

- Department of Housing, Local Government and Heritage
- Marine Institute
- Marine Survey Office
- Department of Agriculture, Food and the Marine
- Inland Fisheries Ireland (IFI)

Response to consultation

See Appendix 1

Data collected to carry out the assessment

Who carried out this assessment?

MERC Consultants Ltd.

Sources of data.

1. Applicants Screening for Appropriate Assessment and associated documents as listed in section 1.2 of this report.

2. Legislation and guidelines as listed in section 2.1 of this report.

3. NPWS data sources for:

- Conservation Objectives for all European sites with Qualifying Interests for habitats or species within the ZOI.
- Natura 2000 data forms for all European sites with Qualifying Interests for habitats or species within the ZOI.
- Site Synopsis for all European sites with Qualifying Interests for habitats or species within the ZOI.
- Marine supporting documents for all European with Qualifying Interests for habitats or species within the ZOI.
- Article 17 mapping for habitats and species for all European sites within the ZOI

All of the aforementioned documents are available at: <https://www.npws.ie/>

4. Additional grey literature and online data sources including but not limited to:

- <https://www.gov.ie/en/collection/f2196-foreshore-applications-and-determinations>
- <https://galwaycoco.maps.arcgis.com/apps/webappviewer/index.html?id=3570e45b0e354cf0b740ecbc7505adb2>
- <https://maps.biodiversityireland.ie/Map>
- MERC (2010). Report of a Diving Survey of Maerl Communities in County Galway. Unpublished report carried out by MERC on behalf of National Parks and Wildlife Service, Department of Environment, Heritage and Local Government.

Level of assessment completed.

Desk based review

Site visit (carried out on 19/3/2021)

Where can the full results of the assessment be accessed and viewed?

Within sections 1 to 3 of this report.

5. Conclusion

5.1 Article 6(3) Appropriate Assessment Screening Conclusion

Following a review of the proposed project, a screening assessment, following the guidelines of *Assessment of plans and projects significantly affecting Natura 2000 sites* - Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC has been conducted. It is concluded that it can be excluded, on the basis of objective information, that the proposed project, individually or in combination with other plans or projects, will have a significant effect on any European site and that Appropriate Assessment is not required.

Appendix 1

Prescribed body consultation. Available at:

<https://www.gov.ie/en/foreshore-notice/d5f68-irish-water-site-investigations-for-sewerage-scheme-roundstone-bay-galway/?referrer=http://www.gov.ie/en/publication/d823e-irish-water-site-investigations-for-sewerage-scheme-roundstone-bay-galway/>

Appendix 2

<https://www.gov.ie/en/foreshore-notice/d5f68-irish-water-site-investigations-for-sewerage-scheme-roundstone-bay-galway/?referrer=http://www.gov.ie/en/publication/d823e-irish-water-site-investigations-for-sewerage-scheme-roundstone-bay-galway/>