MERC Consultants
environmental and conservation services

Supporting Information for Screening for Environmental Impact Assessment (SISEIA)

Uisce Éireann - Waterford City Wastewater Treatment Plant Upgrade Survey

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1. Introduction

Uisce Éireann is seeking a Marine Usage Licence (MUL) to undertake marine site investigations in the River Suir Estuary (Figure 1) to progress a Waterford City Wastewater Treatment Plant (WwTP) Upgrade. The proposed site investigation works comprise a suite of geophysical, geotechnical, bathymetric, ecological, archaeological and CCTV surveys within the River Suir estuary. Their purpose is to gather high-quality baseline data on seabed conditions, subsurface geology, environmental receptors and the condition of the existing outfall. This information is essential for determining the optimal route for a new marine outfall and informing the detailed engineering designAll works are temporary and limited to the defined MUL area.

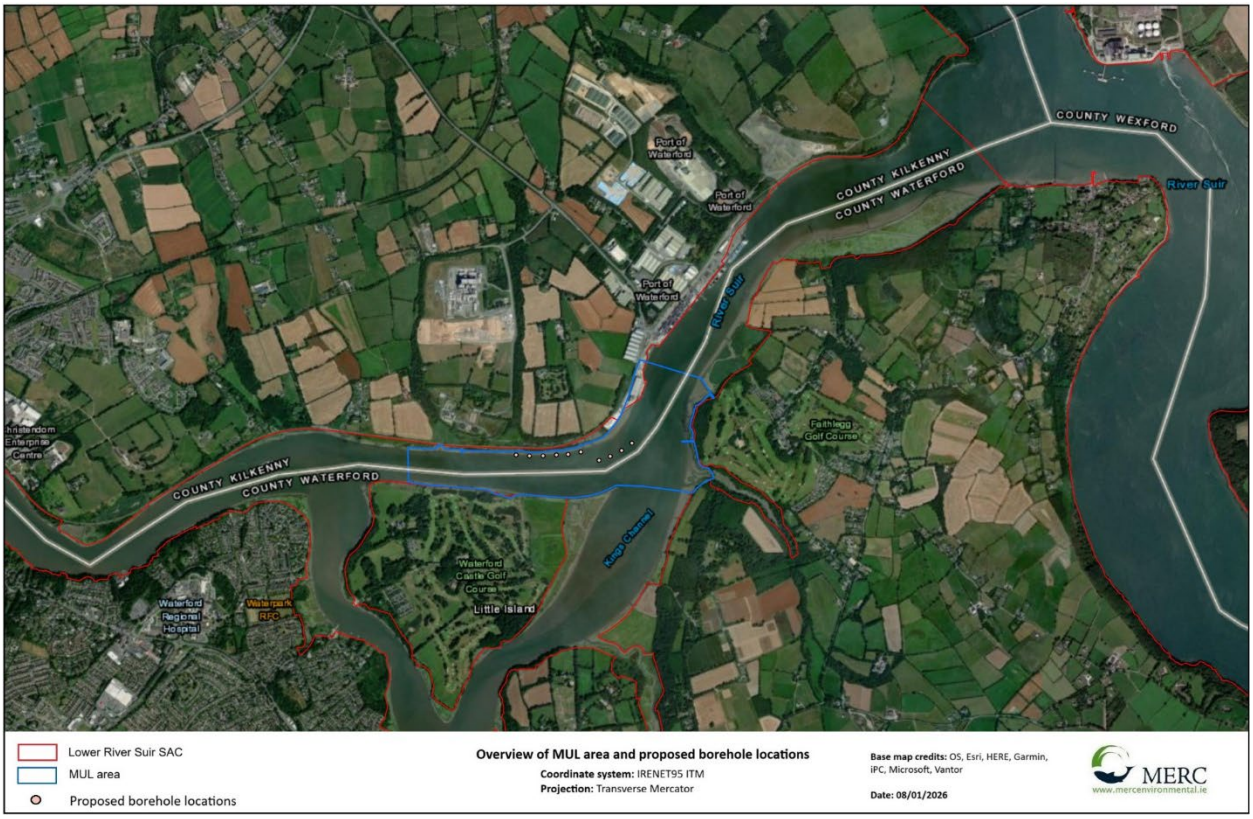

Figure 1. Overview of proposed project site.

1.2 Objectives of this report

The objective of this report is to provide information to assist the Competent Authority in screening the proposed maritime usage to determine if an Environmental Impact Assessment (EIA) is required.

2. Statement of Authority

This report was prepared by Louise Scally of MERC Consultants. MERC are a specialist marine ecological survey and consultancy firm. Core staff have more than 60 years of combined experience and specialist knowledge in relation to Irish marine habitats and species in addition to the assessment and management of conservation interests. MERC have been responsible for conducting national surveillance monitoring of EU Annex I marine habitats for compliance under Article 17 of the EU Habitats Directive since 2015. In this context MERC have been responsible for surveillance monitoring, under Article 11, and reporting under Article 17 of the EU Habitats directive for the 2019 and 2025 reporting cycles. Between 2005 and 2010 MERC conducted the survey, monitoring and assessment of sensitive subtidal habitats in Ireland to inform the conservation objective setting for Irish marine SACs.

Louise Scally MCIEEM is a professional marine ecologist with a wide range of experience in the field of conservation biology, marine habitat mapping and ecology. She completed a M.Sc. in ecology and taxonomy at Trinity College Dublin in 1989 and a Ph.D. in taxonomy also at Trinity College Dublin in 2001. She is a full member of the Chartered Institute of Ecology and Environmental Management (CIEEM). For the last 20 years she has specialised in the ecology of marine ecosystems. She has specialised in the assessment of benthic habitats with a focus on intertidal and subtidal reef habitats and sensitive seabed species and habitats. Over the last 20 years she has conducted extensive marine monitoring surveys and assessments of EU Habitats Directive marine Annex I habitats and their associated species within European sites in Ireland to assist Ireland in complying with monitoring obligations under the EU Habitats Directive.

3. Details of the Proposed Project

A description of the proposed equipment to be used is given below and summarised in Table 1.

3.1 Geophysical surveys

3.1.1 Survey vessel

A multipurpose workboat will be used, based on suitable vessel available at the time of mobilisation. It is considered that a shallow draught vessel, suitable for survey support and operations requiring frequent manoeuvring in confined waters will be used. A suitable vessel in the range of 16 m with a shallow draught and gross tonnage of ~45) is assumed.

3.1.2 Side scan sonar

Side scan Sonar (SSS) is another device that transmits sound pulses that provide the information required to map the seabed. It differs from MBES in that SSS has a finer beam width and smaller footprint to MBES and therefore higher resolution. It is generally towed behind the vessel very close to the seabed and emits

fan-shaped acoustic pulses directed down toward the seafloor which are recorded as a series of cross-tracks. The sound frequencies used by side-scan sonar range generally range from 100 to 1000kHz; higher frequencies yielding better resolution but less range.

3.1.3 Magnetometer

A magnetometer is a passive instrument that measures the Earth's magnetic field allowing magnetic anomalies to be measured. It is towed behind the survey vessel where it samples background magnetism. When the magnetometer detects an anomaly, such as ferrous objects such as fragments of a ship hull or a geological formation of basalt. This is detected as a change to the background magnetic field. This tool can detect artifacts above or below the seabed.

3.1.4 Sub-bottom profiler

A Sub-bottom profiler employs an acoustic signal, to provide the information required to identify and measure marine sediment layers that exist below the sediment/water interface. The proposed equipment comprises a Knudsen Chirp system or similar which transmit a sweep of frequencies (e.g. 2-10 kHz) in a single pulse. Depending on the profile of the seabed (rock, sand, mud etc.) and level of compaction, the energy reflected back can be related to the sub-bottom composition.

3.1.5 Sub-Bottom Profiling (SBP) - Boomer

A sub-bottom profiler boomer is an instrument used to image sediment layers beneath the seafloor. A Boomer system is a seismic reflection profiling instrument that operate in the 700 to 2000 Hz region. Boomers are generally used in oastal waters down to a few hundred meters depth when sub-bottom penetration requirements can not be met with higher frequency systems. The proposed equipment will operate at frequencies within the range of 85-115kHz and 2-22kHz, respectively, and sound pressure levels of up to 232 dB (typically operated at <200dB) re1µPa @ 1m.

3.1.6 Sub-Bottom Profiling (SBP) - Sparker

A Sub-Bottom Profiling Sparker is an instrument used to used to image sediment and rock layers beneath the seafloor, it has a similar purpose to that of the boomer described above but is designed when deeper penetration is required. The proposed equipment will operate at frequencies within the range of 0.5 kHz to 5 kHz, with sound pressure levels in the range of 205-211dB re1µPa @ 1m

3.1.7 Multibeam echosounder

A multibeam echosounder (MBES) is a type of sonar frequently used to map bathymetry. It operates by emitting an acoustic wave in a fan shape beneath the point of its transceiver attached to the hull of the vessel. The time it takes for the sound waves to bounce off the seabed and return to the transceiver is used to calculate the water depth within the arc of the fan. The proposed MBES operates at a sound pressure level of ~215–220 dB re 1 µPa @1m and 300–700 kHz (peak ~400 kHz).

3.1.8 Marine Refraction Seismic

Marine Refraction Seismic systems are used to determine the structure and properties of subsurface layers beneath the seafloor by analysing refracted seismic waves. They use controlled seismic sources, such as

small airguns or sparkers, to generate acoustic waves that travel through the sediment and refract along geological boundaries. Arrays of hydrophones or geophones record these refracted waves, allowing interpretation of sediment thickness, bedrock depth and structural features. Peak frequencies typically range between 5–90 Hz, with expected source levels in the range of 186–220 dB re 1 µPa @ 1 m.

3.1.9 Marine Electrical Resistivity Tomography (ERT)

Marine Electrical Resistivity Tomography (ERT) is a non-invasive geophysical method used to image the subsurface beneath the seabed or coastline by measuring variations in electrical resistance. It involves deploying a series of electrodes along the seabed, either in a fixed layout or towed configuration. Low-voltage electrical currents are passed through the seabed, and resulting potential differences are measured to map variations in subsurface electrical resistivity. As a non-acoustic, non-invasive technique, ERT produces no underwater noise and is used to assess sediment layering, groundwater influence, and bedrock morphology.

3.2 Marine environmental/ecological surveys

3.2.1 Seabed imagery- drop down video/ROV surveys

Underwater camera systems or Remotely Operated Vehicles (ROVs) may be used for visual inspection of the existing benthic conditions within the MUL area. High quality video recordings and stills may be collected for further analysis and confirmation of suitable conditions for further intrusive activities e.g. benthic sampling or geotechnical works.

3.2.2 Benthic sampling

A Day grab is an instrument used for sampling soft seabed sediments. When deployed overboard it is lowered on a winch to the seabed where the jaws open to take a small (approx. 5L) sample of the surface sediment (top 20cm). A Hammon grab is a very similar type of sampler, but the jaw mechanism is slightly different which allows it to sample coarser sediments (e.g. gravel and shelly sediments). The samples retained can then be analysed to obtain an overview of the sediment fauna, and particle size. Both samplers are routinely used for surveillance monitoring to support a number of EU Directives such as the Habitats Directive and Water Framework Directive. Day or Hammon grabs do not introduce noise into the underwater environment other than that produced from a slight impact with the grab making contact with the seabed.

3.2.3 Intertidal coring and walkover surveys

For intertidal sediment assessment a 0.01m^2 hand core taken to a depth of 20cm for benthic faunal analysis will be used. Additional surveys of intertidal hard strata may also be carried out by conducting walk over surveys of the relevant hard strata to record biotopes and species present.

3.3 Archaeological surveys

Intertidal walkover to be undertaken at low tide to assess for the presence of sensitive archaeological features. Survey methodology may also involve the use of a metal detector along the foreshore. Pending the results of geophysical surveys there may be a requirement for further archaeological surveys (i.e. underwater video, dive surveys, etc.).

3.4 Geotechnical surveys

3.4.1 Boreholes

Up to 10 boreholes with a diameter of up to 300mm and a depth of up to 10m below the seabed will be carried out. To facilitate this, a drill head is lowered to the seabed from the vessel via a drill string and stabilised using a seabed frame. The drill head penetrates the seabed via rotation of the drill string and the application of a downward pressure. Soils and rock samples are then retrieved for laboratory testing via the drill string. Borehole drilling may be combined with *in-situ* testing such as cone penetration testing or down the hole testing at some investigative locations.

3.4.2 Standard Penetration Tests (SPTs)

Standard Penetration Tests may be undertaken within selected boreholes. A 63.5 kg hammer is dropped from a height of 760 mm to drive a split-spoon sampler into the sediment. The blow count for the final 300 mm of penetration is recorded as the N-value. Up to 40 SPTs may be undertaken to characterise sediment density and stratigraphy.

3.4.3 Geotechnical grab samples

Up to 14 grab samples may be collected within the MUL area for geotechnical classification, including grain size, moisture content, Atterberg limits and associated chemical testing to assess sediment aggressivity (pH, sulphates, redox and resistivity).

3.5 Ancillary data collection

Additional ancillary data may be collected. This may include the following:

- Collection of water samples, and data on temperature & Conductivity/Salinity collected through the deployment of a small overboard conductivity, temperature and depth (CTD) meter.
- Tidal gauges: For the proposed projects it is proposed that the tidal gauge would be mounted on either a galvanized steel pole to the side of a suitable pier or other permanent fixed structure. Installation would take place on a very low tide so that the mountings can be attached as low as possible down the pier wall to ensure the sensor is below chart datum.
- Multi parameter Sonde for the collection of Conductivity/Salinity etc measurements.

Table 1. Summary of scope of works

Survey	Method	Method detail	Sampling Effort
Geophysical **Up to 16 weeks**	Side Scan Sonar (SSS)	SSS surveys are used to determine sediment characteristics and seabed features. The EdgeTech 4205 may be taken as an indicative example of an SSS device and for these surveys will have a potential operating frequency range of approximately 300/600kHz in the offshore area and 600/900kHz in the shallower nearshore area with sound pressure levels of 220-230dB re1µPa @1m. The SSS will be towed behind a small survey vessel using 20 m spacing of main lines and cross lines at 100 m spacing.	SSS may be undertaken across the proposed MUL Area to a suitable percentage coverage. This activity is anticipated to occur within daylight hours over a period of up to 10 days.
	Magnetometer	A magnetometer is used to identify magnetic anomalies and hazard mapping for metal obstructions, shipwrecks and unexploded ordnance on the surface and in the shallow sub-surface. The Geometrics G-882 can be taken as an indicative equipment example. It is a passive device (i.e. it does not emit any sound waves into the marine environment) the sensor responds to local variability in magnetic field. The magnetometer will be towed behind a small survey vessel using 20 m spacing of main lines and cross lines at 100 m spacing.	Magnetometer survey may be undertaken across the proposed MUL Area to a suitable percentage coverage. This activity is anticipated to occur within daylight hours over a period of up to 10 days.
	Sub-Bottom Profiling (SBP) – Parametric Sub Bottom Profiler	SBP is used to develop an image of the subsurface, identifying different strata encountered in the shallow sediments. The Innomar "standard" Sub-Bottom Profiler is an indicative example of a parametric system with a primary and secondary frequency range of 85-115kHz and 2-22kHz, respectively, and sound pressure levels of up to 232 dB (typically operated at <200dB) re1µPa @ 1m, which would be used in both nearshore and offshore areas. The SBP will be towed behind a small survey vessel using 20 m spacing of main lines and cross lines at 100 m spacing.	SBP Parametric Sub Bottom Profiler may be undertaken across the proposed MUL Area to a suitable percentage coverage. This activity is anticipated to occur within daylight hours over a period of up to 10 days.
	Sub-Bottom Profiling (SBP) - Boomer	The Applied Acoustics AA301 is an indicative example of a boomer, the instrument consists of a piezo electric plate transducer mounted on a surface tow catamaran frame. Reflected sound signals are recorded using a separate hydrophone such as the Applied acoustics HYD-360/08 (50m). The Boomer SBP operates in a frequency range of 0.5 kHz to 5 kHz, with sound pressure levels in the range of 205-211dB re1µPa @ 1m which would be used in the nearshore shallower area. The SBP will be towed behind a small survey vessel using 20 m spacing of main lines and cross lines at 100 m spacing.	SBP Boomer may be undertaken across the proposed MUL Area to a suitable percentage coverage. This activity is anticipated to occur within daylight hours over a period of up to 10 days.
	Sub-Bottom Profiling (SBP) - Sparker	The applied Acoustics Dual 400 Tip is an indicative example of a sparker system used in sub-bottom profiling. Reflected sound signals are recorded using a separate hydrophone such as the Applied acoustics HYD-360/08 (50m) or a multi-channel hydrophone such as the Geometrics GeoEel LH-16™ Digital Streamer. The sparker source has a frequency range of between 0.4-5kHz and a recorded sound pressure of 203dB re1µPa @1m. The SBP will be towed behind a small survey	SBP Sparker may be undertaken across the proposed MUL Area to a suitable percentage coverage. This activity is anticipated to occur within daylight hours over a period of up to 10 days.

Survey	Method	Method detail	Sampling Effort
		vessel using 20 m spacing of main lines and cross lines at 100 m spacing.	
	Multibeam Echo Sounder (MBES)	A bathymetric survey will be conducted using multibeam echo sounders. These systems may be mounted on a dedicated survey vessel or towed behind a smaller vessel, depending on site conditions and water depths. Multibeam systems emit wide acoustic signals to generate high-resolution images, creating three-dimensional maps of the seabed. Line spacing will be between 5 and 20m, depending on depth. The operating frequencies emitted from MBES will be 300-700 kHz, with a peak operating frequency of approximately 400kHz. Exposure time is approx. 0.05 ms per 1 ms for multibeam operating with 200-400 kHz, or 0.05 per 0.3 ms for higher frequencies (>400 kHz). Sound pressure levels will be approximately 215-220dB re 1µPa @ 1m.	MBES may be undertaken across the proposed MUL Area to a suitable percentage coverage. This activity is anticipated to occur within daylight hours over a period of up to 10 days.
	Marine Refraction Seismic	Marine refraction surveys use controlled seismic sources, such as air guns or weight drops, to generate seismic waves that travel through sediment and rock layers. Arrays of hydrophones or geophones deployed on the seabed record the refracted seismic waves as they bend and travel along subsurface interfaces. By analysing the travel times and velocities of these refracted waves, detailed models of sediment thickness, bedrock depth, and structural features can be developed. Airgun impulse energy is mostly concentrated within low frequencies, with peak frequencies between 5 and 90kHz. Source levels are predicted to be within the range of 186-220dB re 1µPa @1m.	Marine Refraction Seismic may be undertaken across the proposed MUL Area to a suitable percentage coverage. This activity is anticipated to occur within daylight hours over a period of up to 8 days.
	Marine Electrical Resistivity Tomography (ERT)	ERT surveys are conducted to investigate the electrical properties of subsurface sediments and rocks. The technique involves deploying a series of electrodes along the seabed, either towed or fixed. As a non-invasive, non-seismic geophysical method, marine ERT produces no significant underwater noise and has minimal environmental impact.	Maximum 20 ERT lines of 315m length line with diameter of 20mm. This activity is anticipated to occur within daylight hours over a period of up to 8 days.
Marine Environmental / Ecological **Up to 5 days**	Benthic ecology samples (including subtidal and intertidal habitats surveys)	Identify benthic communities and habitats at the site. Subtidal sample locations may be subject to drop down video in advance of sampling; intertidal sample locations may be subject to walkover/drone survey in advance of sampling.	There will be up to **30 no.** dedicated subtidal benthic ecology grab sampling locations within the proposed MUL Area and multiple samples (max 4) may be taken at each location. Samples would be of volume 0.1 m^2. There will be up to **30 no**. dedicated intertidal coring /grab locations if shoreline conditions allow for sediment sampling.

Survey	Method	Method detail	Sampling Effort
Archaeological **Up to 5 days**	Walkover	Intertidal walkover to be undertaken at low tide to assess for the presence of sensitive archaeological features. Survey methodology may also involve the use of a metal detector along the foreshore. Pending the results of geophysical surveys there may be a requirement for further archaeological surveys (i.e. underwater video, dive surveys, etc.)	To be confirmed pending the results of the geophysical surveys.
Geotechnical **Up to 16 weeks**	Drop-down video	Drop-down video survey to inspect the seabed and identify any reef structures in the vicinity without disturbance to the seabed.	There will be up to **30 transects** of up to 30 m each using a drop-down camera and video surveillance.
	Boreholes	Boreholes will be advanced to depths of up to 10 m below the riverbed, with drilling terminated earlier where competent bedrock is encountered. Drilling within the river channel will be carried out using cable percussion and rotary coring techniques through the overlying sediments, with rotary coring employed to progress into the underlying bedrock where present. Standard Penetration Tests (SPTs) will be undertaken at appropriate depth intervals in accordance with BS EN ISO 22476-3 to assess in-situ soil resistance and stratigraphy. All drilling equipment and procedures will comply with relevant BS EN ISO technical specifications for geotechnical investigations. In-river boreholes will be drilled from a jack-up barge or stable floating platform to ensure safe working access during tidal or flowing water conditions. Deployment of the jack-up legs may result in minor, localised and temporary disturbance to the riverbed, with each leg typically occupying a footprint of less than 1 m^2. Preliminary investigation point locations are shown in Figure 3. The locations may require adjustment to address localised access conditions.	A maximum of **10 no**. boreholes of a diameter of 300 mm will be required within the proposed MUL Area.
	Standard Penetration Tests (SPTs)	Standard Penetration Tests (SPTs) will be undertaken within the proposed foreshore and in-river boreholes to characterise subsurface stratigraphy and assess in-situ soil resistance. The test involves driving a split-spoon sampler at the base of the borehole using a 63.5 kg hammer dropped from a height of 760 mm, with the resulting blow count recorded in accordance with BS EN ISO 22476-3. The sampler is driven through a total penetration of 450 mm, and the number of blows required for the final 300 mm is reported as the N-value. SPTs will be performed at appropriate depth intervals or where changes in strata are observed to provide a representative profile of the ground conditions within the foreshore investigation area. All testing equipment and procedures will comply with the relevant international standards to ensure consistency and reliability of the results.	A total of approximately 40 no. SPTs will be carried out within the foreshore and in-river investigation area. SPTs will be undertaken in the 10 no. boreholes located within the river channel, with tests performed at appropriate depth intervals in accordance with the marine investigation specification.

Survey	Method	Method detail	Sampling Effort
	Grab samples	Grab samples will be collected from the foreshore and in-river investigation area to obtain disturbed sediment suitable for geotechnical classification and chemical testing. The samples will be analysed to determine particle size distribution, soil grading, moisture content, Atterberg limits, organic content, particle size distribution, and other parameters required to characterise the natural sediments present within the foreshore zone. Engineering tests such as moisture condition value (MCV) testing, California Bearing Ratio (CBR) analyses and soil compaction testing on bulk samples will also be undertaken. Chemical testing will also be undertaken to assess potential aggressivity, including measurements of pH, sulphate concentration, redox potential and resistivity, to inform the design of concrete and other construction materials associated with the proposed works. All sampling, handling and testing procedures will be carried out in accordance with relevant international standards to ensure the acquisition of consistent and reliable geotechnical and chemical data.	A maximum of 14 no. grab samples will be collected within the proposed MUL Area.
Bathymetric Surveys **Up to one week**	Multibeam echo sounders (MBES)	This survey will provide high-resolution data on seabed features, depths, and morphology of the intertidal and subtidal zones within the proposed MUL Area. Bathymetric surveys will be conducted using multibeam echo sounders (MBES) and associated positioning systems. The MBES system may be mounted on a dedicated survey vessel or towed behind a smaller craft, depending on site conditions and water depths. The system emits wide acoustic signals to generate three-dimensional maps of the seabed, with line spacing between 5 and 20 meters, depending on depth. Operating frequencies will typically range from 300 to 700 kHz, with a peak operating frequency of approximately 400 kHz. Sound pressure levels are expected to be approximately 215–220 dB re 1µPa @ 1m. Exposure time is approximately 0.05 ms per 1 ms for multibeam operating with 200–400 kHz, or 0.05 per 0.3 ms for higher frequencies (>400 kHz). The survey will focus on the marine section of the existing outfall route, potential alternative corridors, and the intertidal zone delineated by the high-water mark, as required for the MUL application. The survey will be undertaken in accordance with best practice guidelines to minimize environmental impact, including adherence to the Guidance to Manage the Risk to Marine Mammals from Man-made Sound Sources in Irish Waters (DAHG, 2014). The maximum extent of the bathymetric survey area is presented in Figure 4.	Bathymetric surveys will be undertaken across the proposed MUL Area to a suitable percentage coverage. This activity is anticipated to occur within daylight hours over a period of up to 10 days, subject to weather, tidal conditions, and vessel availability
CCTV Survey of the Existing Outfall	Diver-operated cameras/Remotely Operated Vehicle	The outfall has been in continuous service since the plant was commissioned in 2010. While significant defects are not expected, there has been no recent condition assessment to confirm its current state. A Closed-Circuit Television	CCTV Survey of the Existing Outfall will be undertaken along the existing outfall within the proposed MUL Area.

Survey	Method	Method detail	Sampling Effort
Up to one week	(ROV)	(CCTV) survey is therefore proposed to ensure continued performance and compliance. The survey will be undertaken using either diver-operated cameras or a Remotely Operated Vehicle (ROV), depending on site conditions and accessibility. In deeper or higher-risk sections of the outfall, high-resolution imaging and sonar-equipped systems will be used to ensure safe and comprehensive inspection. The survey will help identify any defects or deteriorations such as cracking, deformation, leakages or blockages, any of which could compromise discharge performance or regulatory compliance.	This activity is anticipated to occur within daylight hours over a period of up to 5 days.

4. Methods

A report containing Supporting Information for Screening for Appropriate Assessment (MERC, 2026a), a Natura Impact Statement (MERC, 2026b) and an Annex IV Risk Assessment (MERC, 2026c) have also been carried out to support this MUL licence application. Both reports were consulted during the preparation of this document

This report has been prepared with reference to the following European Directives, national legislation and guidance on the provisions of, *inter alia*, the Environmental Impact Assessment Directive.

- Directive 2011/92/EU of the European Parliament and of the Council of 13 December 2011 on the assessment of the effects of certain public and private projects on the environment as amended by Directive 2014/52/EU (EIA Directive) (Codified Directive).
- Guidelines on the information to be contained in Environmental Impact Assessment Reports (EPA, 2022).
- Technical Guidance note: Obtaining a licence to carry out specified maritime usages in the Maritime Area under the Maritime Area Planning Act 2021. MARA, 2024 Ver 5.
- 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.
- Guidance to Manage the Risk to Marine Mammals from Man-made Sound Sources in Irish Waters. Department of Arts, Heritage and the Gaeltacht, 2014.

A review of the baseline data was carried out by referring to the following reports and datasets:

- Department of Housing, Local Government and Heritage. National monuments service and wreck viewer.
- Irish Ramsar Wetlands Committee. Ramsar sites Ireland.
- NPWS Designations viewer (SACs, SPAs, NHAs and pNHAs)
- Biodiversity Data Centre Maps: Habitats and Species.

5. EIA Directive and Planning and Development Regulations

5.1 Background

The objective of Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment (the Environmental Impact Assessment, or EIA, Directive) is to ensure that projects that are likely to have a significant effect on the environment are adequately assessed before they are approved. An EIA is required for all projects detailed in Annex I of the EIA Directive and for all projects detailed in Annex II where the proposed project is likely to have significant effects on the environment.

Schedule 5 of the Planning and Development Regulations 2001 (S.I. No. 600 of 2001), as amended sets out the classes, defined under Annex I or Annex II of the EIA Directive, that are subject to mandatory EIA. Schedule 7 of the Planning and Development Regulations 2001 (S.I. No. 600 of 2001), as amended sets out the criteria that must be considered when determining whether a proposed development, that is not automatically subject to mandatory EIA under Schedule 5, is likely to have significant effects on the environment.

The proposed project does not fall within the classes defined under Schedule 5 of the Planning and Development Regulations. Therefore, it is not subject to mandatory EIA. This report has assessed the project relative to its potential to impact the receiving environment by virtue, *inter alia*, of its nature, size and location with regard to schedule 7 of the regulations.

As such the following elements have been assessed and an analysis of the assessment is given in table 3 of this report:

- Land & Soils
- Water
- Biodiversity
- Fisheries and Aquaculture
- Air Quality
- Noise & Vibration
- Landscape/Seascape
- Traffic & Transport (including navigation)
- Cultural Heritage (including underwater archaeology
- Population & Human Health
- Major Accidents & Disasters
- Climate
- Waste
- Material Assets
- Interactions

5.2 Assessment of Impact

The Zone of Influence (ZoI) of the proposed project was established in the preparation of the SISAA (MERC, 2026a).

Table 2 below provides a summary of the environmental baseline and an assessment of the potential for impact on the environment.

6. Environmental Report

Table 2. Environmental baseline and assessment of impact

Environmental baseline
1. European sites (SAC's and SPA's)
The proposed MUL area overlaps with the **Lower River Suir SAC (Site code: 002137).** The Zone of Influence (ZoI) of the proposed project was established in the preparation of supporting information for Screening for Appropriate Assessment (SISAA), (MERC, 2026a). This analysis, using a source-path receptor (SPR) model, demonstrated that the ZoI was limited to the direct area of jack-up barge operations and areas where survey staff may be working in the intertidal zone. It further indicated that indirect impacts resulting from the deployment of noise emitting sources could extend the ZoI to River Barrow and River Nore SAC, Slaney River Valley SAC and Blackwater River (Cork/Waterford) SAC. The nearest SPA to the proposed MUL area is Tramore Back Strand SPA (Site code: 004027), which is 10 km (as the crow files) distant from the proposed project site. No SPR link between the proposed project and Tramore Back Strand SPA was determined The predominant habitat and species types within the ZoI, are known from NPWS coastal habitat, marine community mapping and species distribution mapping for areas within European sites designated for Annex I habitats and/or Annex II species. The qualifying interests for the Special Areas of Conservation (SACs) within the ZoI are as follows: **Lower River Suir SAC** • Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330] • Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation [3260] • Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels [6430] • Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles [91A0] • Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (Alno-Padion, Alnion incanae, Salicion albae) [91E0] • *Taxus baccata* woods of the British Isles [91J0] • *Margaritifera margaritifera* (Freshwater Pearl Mussel) [1029] • *Austropotamobius pallipes* (White-clawed Crayfish) [1092] • *Petromyzon marinus* (Sea Lamprey) [1095] • *Lampetra planeri* (Brook Lamprey) [1096] • *Lampetra fluviatilis* (River Lamprey) [1099]

- *Alosa fallax fallax* (Twaite Shad) [1103]
- *Salmo salar* (Salmon) [1106]
- *Lutra lutra* (Otter) [1355]

River Barrow and River Nore SAC

- Estuaries [1130]
- Mudflats and sandflats not covered by seawater at low tide [1140]
- Reefs [1170]
- Salicornia and other annuals colonising mud and sand [1310]
- Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330]
- Mediterranean salt meadows (Juncetalia maritimi) [1410]
- Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation [3260]
- European dry heaths [4030]
- Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels [6430]
- Petrifying springs with tufa formation (Cratoneurion) [7220]
- Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0]
- Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (Alno-Padion, Alnion incanae, Salicion albae) [91E0]
- *Vertigo moulinsiana* (Desmoulin's Whorl Snail) [1016]
- *Margaritifera margaritifera* (Freshwater Pearl Mussel) [1029]
- *Austropotamobius pallipes* (White-clawed Crayfish) [1092]
- *Petromyzon marinus* (Sea Lamprey) [1095]
- *Lampetra planeri* (Brook Lamprey) [1096]
- *Lampetra fluviatilis* (River Lamprey) [1099]
- *Alosa fallax fallax* (Twaite Shad) [1103]
- *Salmo salar* (Salmon) [1106]
- *Lutra lutra* (Otter) [1355]
- *Vandenboschia speciosa* (Killarney Fern) [6985]

Slaney River Valley SAC

- Estuaries [1130]
- Mudflats and sandflats not covered by seawater at low tide [1140]
- Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330]
- Mediterranean salt meadows (Juncetalia maritimi) [1410]
- Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation [3260]
- Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0]
- Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) [91E0]
- Margaritifera margaritifera (Freshwater Pearl Mussel) [1029]
- Petromyzon marinus (Sea Lamprey) [1095]
- Lampetra planeri (Brook Lamprey) [1096]
- Lampetra fluviatilis (River Lamprey) [1099]
- Alosa fallax fallax (Twaite Shad) [1103]
- Salmo salar (Salmon) [1106]

- Lutra lutra (Otter) [1355]
- Phoca vitulina (Harbour Seal) [1365]

Blackwater River (Cork Waterford) SAC

- 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 (Glauco-Puccinellietalia maritimae) [1330]
- Mediterranean salt meadows (Juncetalia maritimi) [1410]
- Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation [3260]
- Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0]
- Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) [91E0]
- Margaritifera margaritifera (Freshwater Pearl Mussel) [1029]
- Austropotamobius pallipes (White-clawed Crayfish) [1092]
- Petromyzon marinus (Sea Lamprey) [1095]
- Lampetra planeri (Brook Lamprey) [1096]
- Lampetra fluviatilis (River Lamprey) [1099]
- Alosa fallax fallax (Twaite Shad) [1103]
- Salmo salar (Salmon) [1106]
- Lutra lutra (Otter) [1355]
- Vandenboschia speciosa (Killarney Fern) [6985]

The SISAA stated that the project, as proposed, had the potential for Likely significant effects on the following Annex I habitat and Annex II species within the Lower River Suir SAC.

Atlantic salt meadows (Glauco-Puccinellietalia maritimae), *Otter (Lutra lutra), Petromyzon marinus* (Sea Lamprey), *Lampetra fluviatilis* (River Lamprey), *Alosa fallax fallax* (Twaite Shad) and *Salmo salar* (Salmon).

The SISAA stated that the project, as proposed, had the potential for Likely significant effects on:

Petromyzon marinus (Sea Lamprey), Lampetra fluviatilis (River Lamprey), Alosa fallax fallax (Twaite Shad) and Salmo salar (Salmon) within River Barrow and River Nore SAC, Slaney River Valley SAC and Blackwater River (Cork/Waterford) SAC without mitigation:

The Natura Impact Statement prepared for the proposed project (MERC, 2026b) proposed measures to mitigate the potential for impact on the aforementioned habitats and species. These mitigation measures are given in section 12 of this report.

2. Additional designations (NHAs, pNHAs, Ramsar sites)

There are no NHAs with the ZoI of the proposed project site. Keeragh Islands NHA, which is an important site for seabirds, is the nearest NHA to the MUL area. This NHA is 20 km to the southeast of the MUL area.

King's Channel pNHA is comprised of two discrete areas situated 600 m distant, at its nearest point, to the MUL area. This site contains areas of the Annex I habitat Atlantic salt meadows (Glauco-Puccinellietalia maritimae). There is no requirement to enter into this pNHA at any point during the proposed surveys and no impact on this habitat is considered possible.

The Barrow River Estuary pNHA is largely coincident with the boundaries of the River Barrow and River Nore SAC. The SISAA recorded the potential for Likely Significant Effects (LSEs) on this site, without mitigation as indicated under heading 1 above.

The nearest Ramsar site to the MUL area is Tramore Backstrand Ramsar site. This Ramsar site is largely coincident with the boundaries of Tramore Back Strand SPA and no potential for LSEs were recorded for this site.

Assessment of potential for impact

3. Population and Human Health

No potential for impacts on population or human health is considered possible; there is no potential for pollution from hydrocarbons, vessel discharge/waste or the introduction of Invasive Alien species (IAS) as the proposed vessels will be MARPOL compliant and, as such, subject to MARPOL regulations for the use of hydrocarbons, discharge/waste management and invasive species control. The survey is required to inform the future upgrading of an existing wastewater treatment which will in time provide positive benefits to the human health of the general public residing in this area.

4. Biodiversity

Benthic habitats

The MUL area is within an SAC not designated for benthic habitats. Data for the MUL area (Kennedy, 2008) showed that samples taken from within the MUL area were classified as gravel based on Folk 1954 and field observations showed them to be characterised by mud, gravel and cobble with Amphipods present. Stations sampled approximately 500 m east (Belview port) and 500 m west of the MUL area were classified as muddy sand based on Folk 1954, and field observations showed them to be characterised by sand over laminated clay, algal detritus (east of the MUL area) and sand over mud with polychaetes (west of the MUL area). The biotope recorded within the MUL area was EUNIS code A5.321 - *Polydora ciliata* and *Corophium volutator* in variable salinity infralittoral firm mud or clay. This biotope occurs only in very firm mud and clay and possibly submerged relict saltmarsh with a high detrital content. Removal of the characterizing species *Polydora ciliata* and *Corophium volutator* would result in the biotope being lost and/or re-classified. Both species are known to have long reproductive seasons during their short lifespans. Where perturbation removes a portion of the population or even causes local extinction (resistance High, Medium or Low) resilience is likely to be High for as long as recruitment from neighbouring areas and/or adult migration is possible. However, even in areas of suitable habitat that are isolated, where total extinction of the population occurs (resistance None) recovery is likely to depend on favourable hydrodynamic conditions that will allow recruitment from farther away. Given the low energy environment where the biotope occurs, recruitment to re-colonise impacted area may take longer. However, once an area has been recolonised, restoration of the biomass of both characterising species is likely to occur quickly and resilience is likely to be Medium (full recovery within 2-10 years) (De-Bastos *et al*, 2023).

Therefore, impacts on the benthic habitat at this location would be negligible and the habitat would recover with 2-10 years.

Coastal and terrestrial habitats

A narrow band of Atlantic salt meadows (Glauco-Puccinellietalia maritimae) occurs along the northern shore of the River Suir. This area is located between mean high water, and the highest astronomical tides is within 25 meters of some of the borehole locations. There would be no requirement for the jack-up to be positioned over this habitat. However, it remains vulnerable to accidental impact during the positioning of the jack-up barge without mitigation. The NIS (MERC, 2026b) proposed measures to mitigate this impact, and those measures are given in section 12 of this report. There are no additional coastal or terrestrial habitats within the ZoI of the proposed project.

Avifauna

While Parts of the Lower River Suir SAC have also been identified as of ornithological importance for a number of Annex I (E.U. Birds Directive) bird species, including Greenland White- fronted Goose, Golden Plover, Whooper Swan and Kingfisher, the area adjacent to the MUL Area does not have optimal foraging habitat for any of these species.

Marine Mammals

The SISAA (MERC, 2026a) assessed the potential for impacts on Bottlenose Dolphin, Harbour Porpoise, Grey Seal and Harbour Seal and concluded that due to the temporary nature of the acoustic sources proposed which will attenuate rapidly in the shallow estuarine waters the realistic footprint of the noise signal is too limited to have any impact on any of these species.

The Annex IV risk assessment did however identify the potential for adverse Likely significant effects on Common dolphin (*Delphinus delphis*) should they be present within the ZoI of the proposed project during operations resulting in the production of underwater noise (Borehole drilling or acoustic surveys). Measures to mitigate this LSE were recommended and are given in section 12 of this report.

A small risk to otters was identified and recorded in the SISSAA and Annex IV RA. Measures to mitigate this LSE were recommended and are given in section 12 of this report.

The Annex IV RA did not record the potential for any LSE for bat species.

Fish

Commercial fisheries

The waters within River Suir/Waterford Harbour and their environs are used by Ireland's inshore fishing fleet (Figure 2) for OTB midwater trawling and dredging. Pot fishing is also carried out in parts of this area (Ireland's Marine Atlas, Accessed 6/1/2026).

South of Ballyhack, within Waterford Harbour, Cod nursery grounds are present, Whiting spawning and nursery grounds are also present within this area.

These areas are all outside the MUL area and no project related activity has been identified that could impact on these fisheries or species.

Annex II fish species

The proposed project is within the zone of influence of the following Annex II fish species

- *Petromyzon marinus* (Sea Lamprey) [1095]
- *Lampetra planeri* (Brook Lamprey) [1096]
- *Lampetra fluviatilis* (River Lamprey) [1099]
- *Alosa fallax fallax* (Twaite Shad) [1103]
- *Salmo salar* (Salmon) [1106]

The SISAA (MERC, 2026a) stated that there was potential for LSEs on these species in the absence of mitigation. Mitigation was subsequently proposed in the NIS and is given in section 12 of this report.

Aquaculture

Aquaculture (Pacific oyster and Blue mussel) licenced sites occur within the River Suir/Waterford Harbour (figure 3). All Aquaculture sites are located south of the Barrow bridge. The majority of River Suir/Waterford Harbour is

also designated as Shellfish waters, largely south of the Barrow Bridge. There are no licenced aquaculture sites within 2.7 km of the MUL area. Owing to the scale and scope of the project and its distance from these aquaculture areas no project related effects are foreseen.
5. Water, Air and Climate
While emissions to air as a result of vessel exhausts is unavoidable the level of such emissions would not be significantly above background levels in this area and would not have the potential to lead to Air Quality standards being exceeded. Therefore, no Likely significant effects to air quality are anticipated. Other than indirect impacts on climate change resulting from the use of vessel fuel the project does not have the potential to impact climate change trends. The proposed surveys are required to inform the future upgrading of an existing wastewater treatment which will ultimately improve the water quality within the receiving environment.
6. Cultural heritage
A review of the National Monuments Service Historic Environment viewer and Wreck viewer has been carried out. The review did not indicate any wrecks or historic monuments within the MUL area or adjacent waters of the River Suir. However, an archaeological survey of the MUL area is planned as part of the proposed project and this element of the proposed surveys will proceed in advance of any intrusive work taking place.
7. Material Assets
No material assets are present within the confines of the MUL area and no potential for impact on material assets is possible.
8. Noise & Vibration
Noise will be generated during the drilling of bore holes. However, this will be temporary and during daylight hours only. Underwater noise and its potential for impact is discussed under sections 1 and 4
9. Landscape/Seascape
There is no project requirement for the installation of permanent infrastructure. All project related infrastructure will be *in situ* for a maximum of 16 weeks. Therefore, no permanent change to landscapes or seascapes are possible.
10. Traffic & Transport (including navigation)
Minor inconvenience to navigation during borehole drilling may occur. The appropriate notices will be provided to the Harbour Authorities at the Port of Waterford.
11. Cumulative impacts
Cumulative impacts were assessed as part of the preparation of the NIS (MERC, 2026b). This report indicated that following a review of current sources of information, no projects or plans with the potential for cumulative impacts, in-combination with the proposed project, were possible.
12. Summary of mitigations
The SISAA (MERC, 2026a) carried out in support of this project concluded that, without mitigation, the proposed project had the potential to lead to LSEs on *Otter,* Sea Lamprey, River Lamprey, Twaite Shad and Salmon should any of these species be present in the area during surveys with the potential to introduce noise into the water column. The SSIA also recorded the potential for LSEs on Atlantic salt meadows (Glauco-Puccinellietalia maritimae) as a result of moving the jack-up barge into position. The Annex IV Risk Assessment (MERC, 2026c) carried out in support of this project concluded that, without mitigation, the proposed project had the potential to lead to LSEs to Common dolphin (*Delphinus delphis*)

To mitigate the potential for LSEs the following measures were proposed in the Natura Impact Statement (MERC, 2026b) for the proposed project.

Mitigation: Otter (*Lutra lutra*)

- Prior to the commencement of any element of the proposed project taking place, an otter survey should be carried out by a qualified ecologist with demonstrable experience in otter surveys. This survey should be conducted within 2-3 months of the proposed commencement date.
- Any holt/couch sites or resting places within the MUL area should be clearly identified. A protection zone of 30 m around any otter holt or couch sites and of 150 m around any natal dens identified should be established.
- Buffer zones should also be established either side of the mouth of the Rathpatrick and Gorteens Streams which enter the MUL area along the northern shore. These areas should be avoided, even in the absence of signs of active use by otters.
- Intertidal surveys (e.g. handheld benthic coring) is normally conducted at low spring tide. This is the time coastal otters are least likely to be foraging and should be adhered to.

Mitigation: Annex II migratory fish (Sea Lamprey, River Lamprey, Twaite Shad and Salmon).

To avoid the potential for underwater noise related disturbance to Salmon, River Lamprey, Sea Lamprey and Twaite Shad surveys that will introduce noise into the marine environment specifically:

- Borehole drilling
- Standard Penetration Tests (SPTs)
- Side Scan Sonar
- Sub-Bottom Profiling (SBP) – Parametric Sub Bottom Profiler
- Sub-Bottom Profiling (SBP) – Boomer
- Sub-Bottom Profiling (SBP) – Sparker
- Multibeam Echo Sounder (MBES)
- Marine Refraction Seismic

shall not be undertaken during the months of April to October to avoid periods of inward and, as may be applicable, outward migration of the aforementioned species.

Mitigation: Atlantic salt meadows (Glauco-Puccinellietalia maritimae)

Prior to the project commencing, an appropriately qualified ecologist will be appointed to inspect the area of "potential" Atlantic Salt Meadows along the northern boundary of the site and determine the type of salt meadows present (noting the conservation objectives for the site indicate this area as "Potential" rather than confirmed Atlantic Salt meadows). Once determined, access routes to, from and across the shore will be clearly determined and marked to ensure no impact on this habitat.

The environmental Risk Management Plan for the project will subsequently clearly define the access routes and assign the responsibility for ensuring that only approved access routes are used by survey staff and in particular the operator of the jack-up barge.

Mitigation: Common dolphin

NPWS (2014) provides guidance to manage the risk to marine mammals from man-made sound sources in Irish waters. This document provides guidance and mitigation measures to address key potential sources of anthropogenic sound that may impact negatively on marine mammals in Irish waters. The guidance set out in NPWS (2014), relates to geophysical acoustic surveys (seismic, multibeam and single beam surveys) and Drilling and should be fully implemented as detailed below.

Acoustic survey operations

1. A qualified and experienced marine mammal observer (MMO) shall be appointed to monitor for marine mammals and to log all relevant events using standardised data forms.
2. Acoustic surveying using the geophysical survey equipment specified for this project shall not commence if marine mammals are detected within a 500m radial distance of the sound source intended for use, i.e., within the Monitored Zone.

Pre-Start Monitoring

Sound-producing activities shall only commence in daylight hours where effective visual monitoring, as performed and determined by the MMO, has been achieved. Where effective visual monitoring, as determined by the MMO, is not possible the sound-producing activities shall be postponed until effective visual monitoring is possible.

An agreed and clear on-site communication signal must be used between the MMO and the Works Superintendent as to whether the relevant activity may or may not proceed, or resume following a break (see below). It shall only proceed on positive confirmation with the MMO.

The MMO shall conduct pre-start-up constant effort monitoring at least 30 minutes before the sound-producing activity is due to commence. Sound-producing activity shall not commence until at least 30 minutes have elapsed with no marine mammals detected within the Monitored Zone by the MMO.

This prescribed Pre-Start Monitoring shall subsequently be followed by a Ramp-Up Procedure which should include continued monitoring by the MMO.

Ramp-Ip Procedure

In commencing an acoustic survey operation using the above equipment, the following Rampup Procedure (i.e., “soft-start”) must be used, including during any testing of acoustic sources, where the output peak sound pressure level from any source exceeds 170 dB re: 1µPa @1m:

(a) Where it is possible according to the operational parameters of the equipment concerned, the device’s acoustic energy output shall commence from a lower energy start-up (i.e., a peak sound pressure level not exceeding 170 dB re: 1µPa @1m) and thereafter be allowed to gradually build up to the necessary maximum output over a period of 20 minutes.

(b) This controlled build-up of acoustic energy output shall occur in consistent stages to provide a steady and gradual increase over the ramp-up period.

(c) Where the acoustic output measures outlined in steps (a) and (b) are not possible according to the operational parameters of any such equipment, the device shall be switched “on” and “off” in a

consistent sequential manner over a period of 20 minutes prior to commencement of the full necessary output.

In all cases where a Ramp-Up Procedure is employed the delay between the end of ramp-up and the necessary full output must be minimised to prevent unnecessary high-level sound introduction into the environment.

Once the Ramp-Up Procedure commences, there is no requirement to halt or discontinue the procedure at night-time, nor if weather or visibility conditions deteriorate nor if marine mammals occur within a 500m radial distance of the sound source, i.e., within the Monitored Zone.

Breaks in sound output

If there is a break in sound output for a period greater than 30 minutes (e.g., due to equipment failure, shut-down, survey line or station change) then all Pre-Start Monitoring and a subsequent Ramp-up Procedure (where appropriate following Pre-Start Monitoring) must be undertaken.

For higher output survey operations which have the potential to produce injurious levels of underwater sound (see sections 2.4, 3.2) as informed by the associated risk assessment, there is likely to be a regulatory requirement to adopt a shorter 5-10 minute break limit after which period all Pre-Start Monitoring and a subsequent Ramp-up Procedure (where appropriate following Pre-Start Monitoring) shall recommence as for start-up.

Reporting

Full reporting on MMO operations and mitigation undertaken must be provided to the Regulatory Authority as outlined in Appendix 6 of NPWS (2014).

Drilling operations

The following measures are recommended:

1. A qualified and experienced marine mammal observer (MMO) shall be appointed to monitor for marine mammals and to log all relevant events using standardised data forms (Appendix 7).
2. Unless information specific to the location and/or plan/project is otherwise available to inform the mitigation process (e.g., specific sound propagation and/or attenuation data) and a distance modification has been agreed with the Regulatory Authority, drilling activity shall not commence if marine mammals are detected within a 500m radial distance of the drilling sound source, i.e., within the Monitored Zone.

Pre-start monitoring

3. Drilling activities shall only commence in daylight hours where effective visual monitoring, as performed and determined by the MMO, has been achieved. Where effective visual monitoring, as determined by the MMO, is not possible the sound-producing activities shall be postponed until effective visual monitoring is possible.

4. An agreed and clear on-site communication signal must be used between the MMO and the Works Superintendent as to whether the relevant activity may or may not proceed, or resume following a break (see below). It shall only proceed on positive confirmation with the MMO.

5. In waters up to 200m deep, the MMO shall conduct pre-start-up constant effort monitoring at least 30 minutes before the sound-producing activity is due to commence. Sound-producing activity shall not commence until at least 30 minutes have elapsed with no marine mammals detected within the Monitored Zone by the MMO.

6. This prescribed Pre-Start Monitoring shall subsequently be followed immediately by normal drilling operations. The delay between the end of Pre-Start Monitoring and the necessary full drilling output must be minimised.

Drilling operations

7. Once normal drilling operations commence, there is no requirement to halt or discontinue the activity at night-time, nor if weather or visibility conditions deteriorate nor if marine mammals occur within a 500m radial distance of the sound source, i.e., within the Monitored Zone.

Breaks in sound output

8. If there is a break in drilling sound output for a period greater than 30 minutes (e.g., due to equipment failure, shut-down or location change) then all Pre-Start Monitoring must be undertaken in accordance with the above conditions prior to the recommencement of drilling activity.

Reporting

Full reporting on MMO operations and mitigation undertaken must be provided to the Regulatory Authority as outlined in Appendix 7 of NPWS (2014).

Mitigation: In combination effects

Provided the measures recommended for the Annex II migratory fish and Common dolphin listed above are implemented, no LSEs on Annex II migratory fish or Common dolphin, in combination with other projects and plans, are considered possible.

7. Conclusion. EIA Directive (not of a class)

The proposed project is not of a class whereby mandatory Environmental Impact Assessment (EIA) is required. Projects which do not meet the threshold may still require an EIA if the project is likely to have significant effects on the environment. This report has assessed the implications of the project, alone and in-combination with other projects on the receiving environment. It concludes that, based on the scale and scope of the proposed project and mitigation measures proposed, no impact on the receiving environment is likely. Therefore, EIA is not required.

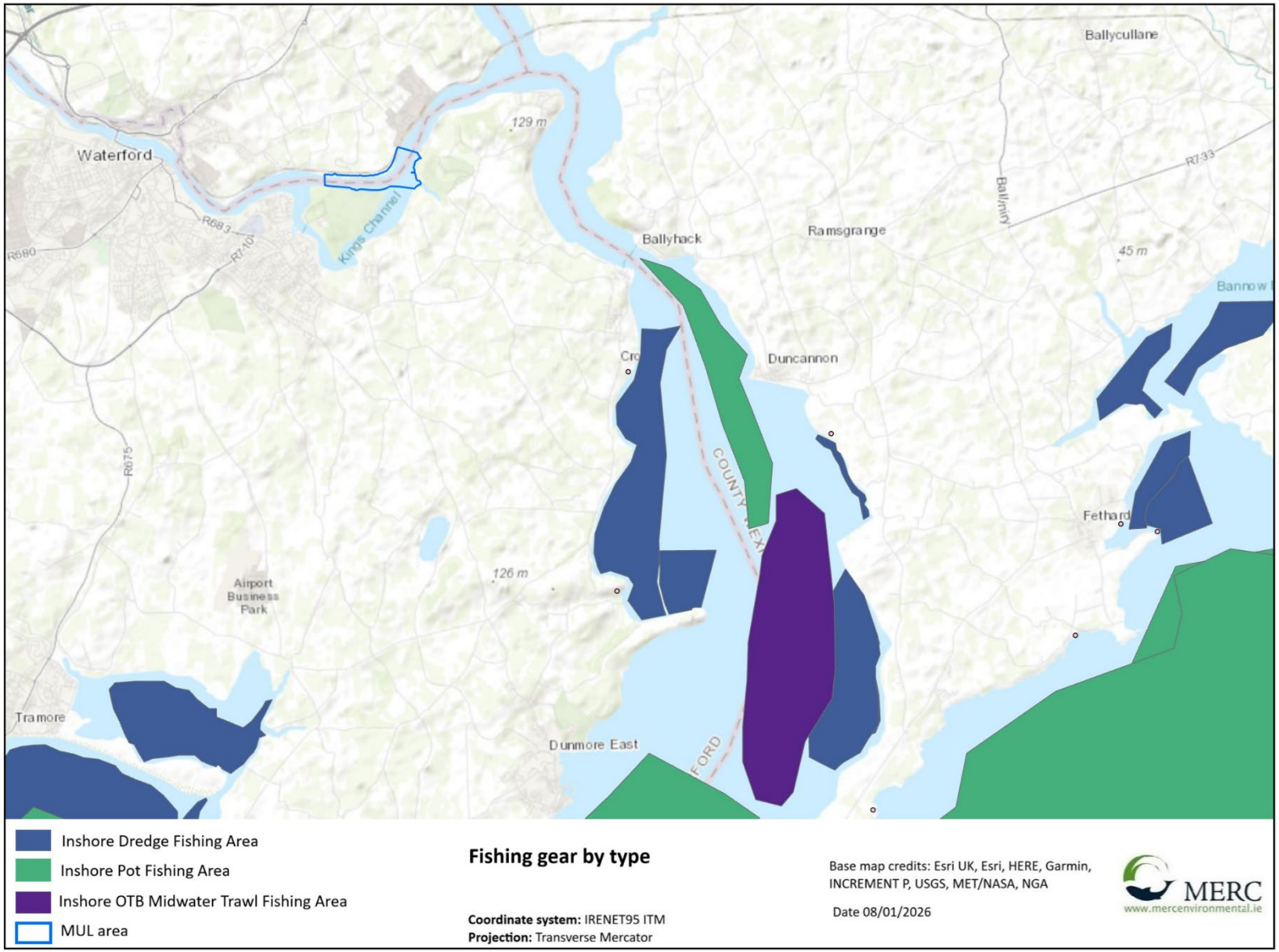

Figure 2. Fishing gear by type

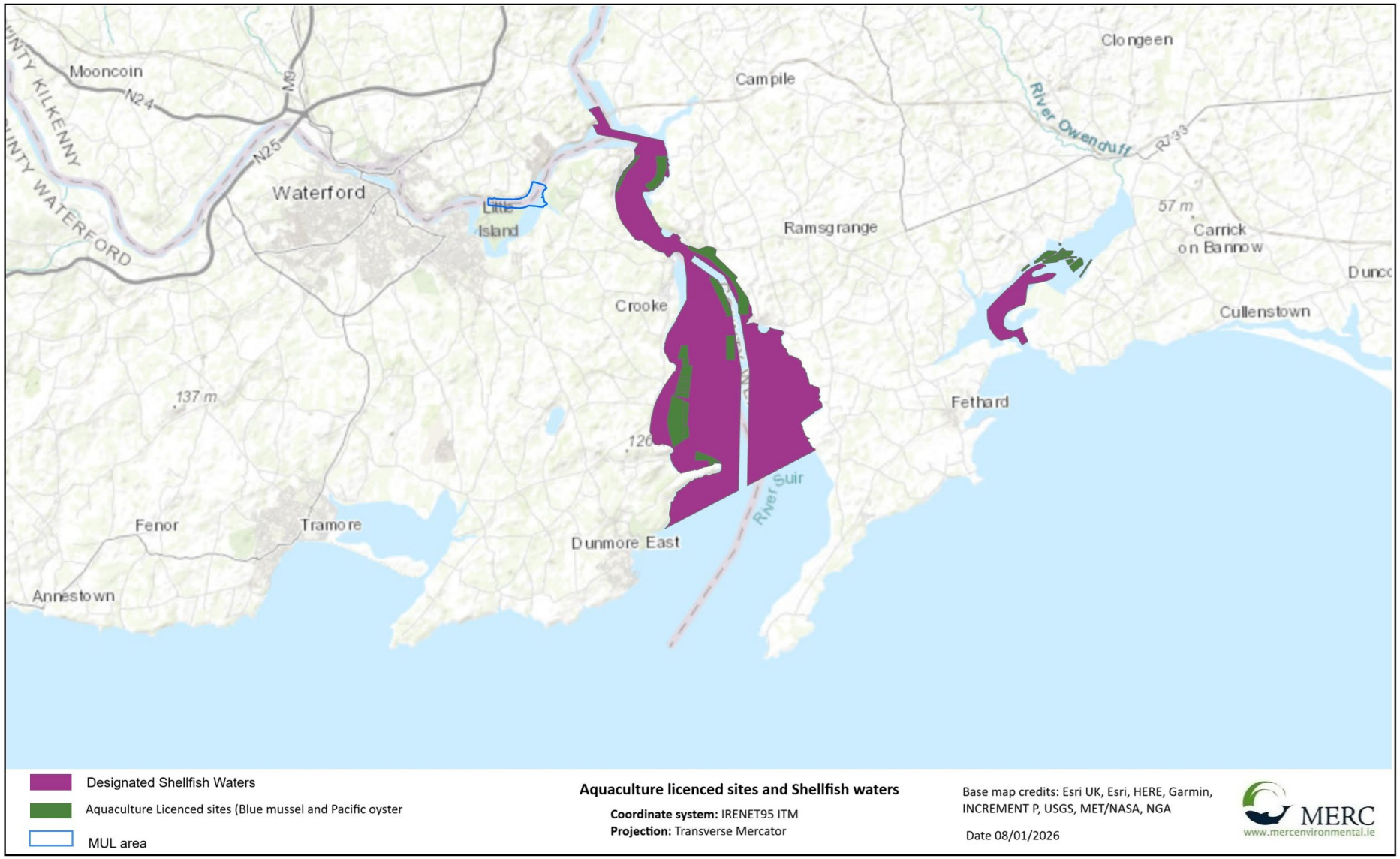

Figure 3. Aquaculture licenced sites and Shellfish water

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