MERC Consultants
environmental and conservation services

Statement of Compliance with the Water Framework Directive (WFD)
Applicant: Uisce Éireann
MUL application for: Rosie Hackett Bridge - Liffey Siphon Project: Proposed Maritime Site Investigations (SI)
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The key objectives of the Water Framework Directive (Directive 2000/60/EC) are set out in Article 4 of the WFD. It requires Member States to use their River Basin Management Plans and Programmes of Measures to protect and, where necessary, restore water bodies in order to reach good status, and to prevent deterioration, thereby ensuring good qualitative and quantitative health, i.e. through reducing and removing pollution and ensuring that there is enough water to support wildlife at the same time as human needs. The WFD objectives are implemented in Ireland through the European Communities Environmental Objectives (Surface Waters) Regulations 2009 (S.I. No. 272 of 2009, as amended, e.g., 327 of 2012, 77 of 2019, 659 of 2021 and SI 410 of 2023).

This compliance note has been prepared using the project description and findings presented in the Supporting Information for Screening for Appropriate Assessment (MERC, 2026) and the Supporting Information for Screening for Environmental Impact Assessment (MERC, 2026) report for the proposed survey work to inform the Uisce Éireann Rosie Hackett Bridge - Liffey Siphon Project. The assessment relates only to the proposed temporary maritime site investigations; the permanent siphon and associated permanent construction are outside its scope.

The assessed SI activity envelope comprises MBES bathymetry; parametric and/or boomer sub-bottom profiling; marine refraction seismic; marine electrical resistivity tomography (ERT); two marine boreholes from a modular four-legged jack-up barge; benthic ecology sampling/drop-down video; ancillary water/CTD observations; non-disturbance archaeological dive/quayside inspection, probe and metal-detector survey; and testing of recovered material as required.

Table 1. WFD Waterbody Definitions

'Transitional waters' are bodies of surface water in the vicinity of river mouths which are partly saline in character as a result of their proximity to coastal waters but which are substantially influenced by freshwater flows"
'Coastal water' means surface water on the landward side of a line, every point of which is at a distance of one nautical mile on the seaward side from the nearest point of the baseline from which the breadth of territorial waters is measured, extending where appropriate up to the outer limit of transitional waters.

The proposed works are located within the Liffey Estuary Upper transitional waterbody (WFD code IE_EA_090_0400), part of the Liffey and Dublin Bay hydrological system. The EPA characterises the waterbody as meso- or polyhaline, strongly mesotidal and sheltered. Current Cycle 3 information records the waterbody at Good status, with a Good environmental objective and a Review risk classification. Its mapped area is approximately 0.195 km² (19.52 ha). The inner Liffey is physically modified by engineered quays and bridge infrastructure. There is therefore direct spatial overlap between the proposed maritime usage and a classified WFD surface waterbody.

The River Liffey provides direct downstream hydrological connectivity from the works area towards Dublin Port and Dublin Bay. The EPA dataset also identifies an association with protected areas. This does not of itself mean that the Rosie Hackett Bridge site lies within a European site; designated-site pathways are addressed separately in the SISAA.

Table 2 considers the key WFD quality elements and project pathways. The principal issues are direct riverbed disturbance, suspended sediment/turbidity, potential mobilisation of contaminants, drilling fluids and returns, accidental pollution, temporary channel occupation and effects on estuarine/migratory fish.

The key elements used to assess ecological status are listed in Table 2. Further detail on the identification of pressures with the potential to affect the water quality elements and their likely impacts is given in MERC 2026a and MERC 2026b.

Table 2: Indicators of Good Ecological Status

Category	Quality Element / Indicator	Metrics considered	Assessment
Biological	Phytoplankton	Phytoplankton biomass abundance, species composition, and frequency of blooms.	Temporary localised increases in suspended solids/turbidity may occur through bed-contact activities. Roto-sonic drilling with continuous casing is specified to minimise disturbance and sediment mobilisation, and any fine-sediment suspension associated with penetration or tool

Category	Quality Element / Indicator	Metrics considered	Assessment
			insertion/removal is expected to be extremely limited in extent and duration. No sustained change in phytoplankton biomass, composition or bloom frequency, and no deterioration of this biological quality element, is predicted.
Biological	Macrophytes & Phytobenthos	Species composition, coverage, diversity, and sensitivity to disturbance.	Direct riverbed disturbance is confined to two boreholes, eight jack-up leg placements, short ERT deployments and localised benthic grabs within the modified urban subtidal channel. No waterbody-scale change in macrophyte/phytobenthos composition, coverage or condition is predicted.
Biological	Benthic Invertebrates	Diversity, abundance, pollution sensitivity and community structure.	Benthic invertebrates may be directly affected by discrete boreholes, jack-up leg and grab locations and indirectly by local sediment mobilisation/redeposition. Up to 30 benthic locations with a maximum of four 0.1 m² Day-grab samples per location are assessed. Effects are localised and temporary and are not predicted to cause deterioration of the benthic-invertebrate quality element at waterbody scale.
Biological	Fish Fauna	Species composition, abundance, age structure, migration patterns	The tidal Liffey is an estuarine habitat and migration corridor for fish, including salmonids, European eel and lamprey. Potential pathways are underwater sound/vibration, local suspended sediment/water-quality change, lighting and temporary channel occupation. A practicable passage route will be maintained, and the temporary SI is not predicted to cause deterioration of fish composition, abundance, age

Category	Quality Element / Indicator	Metrics considered	Assessment
			structure or migration at waterbody scale.
Hydromorphological	Hydrological Regime	Flow quantity and dynamics, water level fluctuations, groundwater connection	No permanent change to river flow or tidal regime is proposed. The approximately 12 m x 14 m jack-up barge will temporarily occupy two borehole positions and may cause only local, reversible flow effects around the platform/safety area. No deterioration of the hydrological-regime quality element is predicted.
Hydromorphological	River Continuity	Barriers to movement (weirs, dams), fish passage	No significant barriers identified.
Hydromorphological	Morphological Conditions	Channel structure, substrate composition, riparian zone condition, bank/shore structure	Boreholes, working-platform legs and bed-contact sampling will cause discrete physical disturbance to the riverbed. No permanent bank or channel modification included in the maritime site-investigation scope.
Physico-chemical	General Conditions	Temperature, dissolved oxygen, pH, salinity	Short-duration and local turbidity and water-quality change may occur through small-scale sediment mobilisation. Roto-sonic drilling with continuous casing is specified to minimise disturbance and sediment mobilisation, and any fine-sediment suspension associated with penetration or tool insertion/removal is expected to be extremely limited in extent and duration. Ancillary water/CTD observations are included in the SI scope. No sustained change in temperature, dissolved oxygen, pH or salinity, and no deterioration of general physico-chemical conditions, is predicted.
Physico-chemical	Nutrients	Nitrogen (nitrate, ammonia), phosphorus (phosphate)	No nutrient discharge is intended.
Physico-chemical	Specific Pollutants	Metals, pesticides, and other nationally identified substances (EQS compliance)	The Inner-Liffey sediments may contain contaminants associated with historic and contemporary

Category	Quality Element / Indicator	Metrics considered	Assessment
			urban/port activity. The physical disturbance associated with the marine boreholes is localised. Roto-sonic drilling with continuous casing is specified to minimise disturbance and sediment mobilisation, and any fine-sediment suspension associated with penetration or tool insertion/removal is expected to be extremely limited in extent and duration. Pollution-prevention controls apply to fuels, lubricants and drilling fluids. No deterioration of the specific-pollutant quality element is predicted for the defined SI envelope.
Chemical (Separate Status)	Priority Substances	Mercury, cadmium, PFAS, PAHs and other EU priority chemicals (pass/fail)	Priority substances are relevant only where present in existing disturbed sediment or project substances; no deliberate introduction is proposed. Given the small and localised bed disturbance, the specified roto-sonic/continuous-casing method and pollution-prevention controls, no deterioration of chemical status is predicted from the assessed SI.

Intrusive site investigations will cause localised and temporary riverbed disturbance through two roto-sonic boreholes with continuous casing, eight jack-up leg placements, ERT traverse(s) totalling up to approximately 300 m maximum and benthic grabs. Boreholes may extend to a maximum of 20 m below bed level and will be approximately 200 mm diameter through overburden and 100 mm diameter through rock. Benthic sampling comprises up to 30 locations with up to four 0.1 m² Day-grab samples at each location.

Historic and contemporary urban and port activities create potential for contaminants in inner-Liffey sediments. The project will use relevant existing data sets and, where required, project-specific sediment testing to define contaminant concentrations and the implications of disturbing or handling sediment.

Potential water-quality pathways include suspended sediment, release of contaminants from disturbed bed material, drilling fluids and returns, and accidental loss of fuels or lubricants. The appointed survey contractor will provide site- and activity-specific Method Statements for the marine operations within its scope.

All vessels will adhere to published guidelines and best working practices such as the National Maritime Oil/HNS Spill Contingency Plan (NMOSCP), Marine Pollution Contingency Plan (MPCP), Chemicals Act 2008 (No. 13 of 2008), Chemicals (Amendment) Act 2010 (No. 32 of 2010) and associated regulations.

The project controls address pollution prevention and containment; management of drilling fluids/returns; contaminated sediment/material handling; waste management; risk-based biosecurity where a credible invasive-species transfer vector is identified; and environmental-incident response. These controls are consistent with the assessed SI envelope used across the SISEIA, SISAA, Annex IV and WFD documents.

Temporary platform positioning and safety arrangements may locally affect channel width and fish passage. The modular four-legged jack-up barge is indicatively approximately 12 m wide x 14 m long and will occupy two borehole positions during the approximately 14-21-day SI programme. A practicable passage route will be maintained where feasible and safe, subject to navigation requirements.

Having regard to the defined activity schedule, discrete intrusive footprint, the limited sediment mobilisation expected from the specified roto-sonic drilling and continuous-casing method, and the applicable pollution-prevention controls, the assessment concludes that the site investigations will not cause deterioration in the status of any relevant WFD quality element or compromise achievement of the waterbody objectives under Article 4.

A summary assessment of the potential for project-related pressures to alter their baseline condition is provided in Table 3.

Table 3. Summary assessment

WFD consideration	Project relevance	Conclusion
Spatial overlap with WFD water bodies	Direct overlap with the Liffey Estuary Upper transitional waterbody (IE_EA_090_0400).	Direct WFD waterbody interaction. Full no-deterioration assessment required.

WFD consideration	Project relevance	Conclusion
Water quality/status deterioration risk	Potential local pathways include sediment/turbidity, contaminant mobilisation, drilling fluids/returns and accidental pollution. The physical disturbance is small and localised; Roto-sonic drilling with continuous casing is specified for the marine boreholes to minimise disturbance and sediment mobilisation and assist controlled recovery of drilled material. Minor, localised suspension of fine sediments may occur during penetration of soft riverbed material or tool insertion/removal but is expected to be extremely limited in extent and duration.	No deterioration of waterbody ecological or chemical status is predicted for the defined SI envelope.
Hydro morphology/seabed disturbance	Discrete bed disturbance arises from two roto-sonic boreholes with continuous casing, eight jack-up leg placements, ERT traverse(s) totalling up to approximately 300 m maximum and localised benthic sampling. Temporary jack-up occupation may also affect local flow and fish passage during the approximately 14–21-day SI programme.	Effects are localised, temporary and reversible and are not predicted to cause deterioration of hydromorphological or biological quality elements.

Conclusion

No deterioration of the Liffey Estuary Upper transitional waterbody is predicted from the temporary site investigations. The defined SI envelope is spatially limited and temporary. Roto-sonic drilling with continuous casing is specified to minimise disturbance and sediment mobilisation, and minor localised suspension of fine sediments associated with penetration or tool insertion/removal is expected to be extremely limited in extent and duration. The appointed survey contractor will provide site- and activity-specific Method Statements for the marine operations within its scope. On this basis, the assessed SI is not predicted to cause deterioration of the relevant WFD quality elements or compromise achievement of the waterbody objectives.

On this basis, the assessed SI is consistent with the Article 4 no-deterioration objective and is not predicted to compromise achievement of the waterbody objectives.

This WFD assessment applies the same controlled activity schedule and GIS boundary as the SISAA, SISEIA and Annex IV Risk Assessment. The Stage 2 Appropriate Assessment requirements identified in the SISAA are addressed separately under Article 6(3) and do not alter the WFD Article 4 no-deterioration conclusion.

Bibliography

European Parliament and Council of the European Union, 2014. Consolidated text: Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy (consolidated version incorporating amendments to 1 January 2014), CELEX: 02000L0060-20140101. Available via EUR-Lex. https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX%3A02000L0060-20140101&utm

EPA (2026). Water Framework Directive waterbody information: Liffey Estuary Upper (IE_EA_090_0400).

MARA (July 2026). Guidance Note for Applicants applying for a Maritime Usage Licence.

MERC (2026). Supporting Information for Screening for Appropriate Assessment: Uisce Éireann - Rosie Hackett Bridge - Liffey Siphon Project. Proposed Maritime Site Investigations.

MERC (2026). Supporting Information for Screening for Environmental Impact Assessment: Uisce Éireann - Rosie Hackett Bridge - Liffey Siphon Project. Proposed Maritime Site Investigations.

MERC (2026). EU Habitats Directive Annex IV Risk Assessment: Uisce Éireann - Rosie Hackett Bridge - Liffey Siphon Project. Proposed Maritime Site Investigations.

MARA 2024. Guidance Note Identification of Unexploded Ordinance (UXO) in the Maritime Area Guidance for Consent Holders on the identification of Unexploded Ordnance (UXO) in the Maritime Area. Guidance