TECHNICAL NOTE

Fingal Coastal Way

SUBJECT
Water Framework Directive Objectives Response

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TECHNICAL
NOTE

Attachment 4.5 – Water Framework Directive Objectives Response

1. Zone of Influence

The Water Framework Directive (WFD) (2000/60/EC) establishes a framework for the protection and improvement of surface waters, transitional waters, coastal waters and groundwater. The primary objectives of the WFD are to prevent deterioration in the status of water bodies and to protect, enhance and restore aquatic ecosystems.

The Maritime Area Regulatory Authority (MARA) requires applicants to align their assessments of the proposed usage area with the objectives of the WFD. The assessment considers the relevant waterbodies within the Zone of Influence (ZoI), their current status, associated protected areas, and the potential for the proposed Ground Investigation (GI) works to affect the ecological or chemical status of those waterbodies.

The proposed GI works are located within the Rogerstown Estuary waterbody. In assessing potential effects on Water Framework Directive (WFD) objectives, a Zone of Influence (ZoI) is defined to include both the direct footprint of the works and any potential indirect effects, such as localised sediment disturbance, runoff, noise or accidental pollution events. The ZoI also incorporates relevant WFD protected areas and water-dependent ecological receptors to ensure that potential effects on water quality, hydromorphology and protected areas are appropriately considered. For the purposes of this assessment, a ZoI extending 2 km from the proposed Maritime Usage Licence (MUL) area has been adopted, representing a precautionary and proportionate approach to the assessment of potential WFD effects.

Relevant waterbodies within the Zone of Influence (ZoI) have been identified based on their potential to be directly or indirectly affected by the proposed GI works. These include surface waterbodies located within or connected to the project area, as well as any groundwater bodies with a hydraulic connection to the receiving environment.

The Water Framework Directive (WFD) also requires consideration of protected areas that are dependent on the quality and status of the water environment. These include areas designated for the protection of habitats, species and other water-dependent receptors within the relevant River Basin District.

Given the estuarine location of the proposed works, the assessment focuses on the relevant transitional and coastal water environments, together with associated WFD protected areas located within the ZoI. The waterbodies and protected areas considered in this assessment are identified and summarised in **Table 1**.

Table 1 - WFD Waterbodies and Protected Areas identified within the ZoI

Site Name	Site Type	Distance from MUL Area	Screened In/Out	Justification
Rogerstown Estuary	Special Area of Conservation / Special Protection Area	Within	In	Overlaps MUL Application Area (proposed surveys)
Broadmeadow Estuary	Special Area of Conservation	4.0 km	Out	Outside 2km of proposed surveys

2. Potential Impact Assessment

This involves the evaluation of potential effects on ecological status, chemical status and WFD objectives. The proposed GI works are temporary in nature and will not result in permanent alterations to waterbody characteristics, hydromorphological conditions or ecological functioning.

The proposed works will not involve dredging, reclamation, discharge of pollutants, extraction of marine resources or the installation of permanent structures within the estuary. The investigations, including borehole drilling and sediment sampling, may result in temporary and localised disturbance of sediments within the estuarine environment. Any suspended sediment generated during the works is expected to remain confined to the immediate vicinity of the investigation locations and will be rapidly dispersed by natural tidal flows and estuarine processes. The resulting increase in suspended sediments is anticipated to be minor, short-term and within the range of natural variations typically experienced within Rogerstown Estuary. Consequently, no significant effects on water quality or WFD objectives are anticipated, and conditions are expected to return to baseline following completion of the works.

There is a potential risk of accidental pollution arising from fuels, oils, plant or equipment associated with the investigation works. However, appropriate mitigation measures, including fuel management procedures, pollution prevention controls and emergency spill response measures, will be implemented throughout the investigation programme. In the unlikely event of an accidental release, any impact would be localised, short-term and subject to immediate containment and remediation.

Therefore, with the implementation of the proposed mitigation measures, the GI works are not expected to adversely affect water quality or result in deterioration of WFD status.

3. Mitigation Measures

It is necessary to identify the measures required to avoid or minimise potential impacts on the water environment. For the GI works, a range of mitigation measures will be implemented throughout to ensure protection of the water environment, including:

- Pollution prevention measures and spill response procedures;
- Controls on fuel storage and refuelling activities;
- Groundwater and surface water protection measures;
- Appropriate waste management procedures;
- Biosecurity measures to prevent the introduction and spread of invasive non-native species; and
- Reinstatement of all investigation locations following completion of works.

These measures are considered sufficient to ensure that the proposed works will not result in deterioration of waterbody status or compromise the objectives of the Water Framework Directive.

4. Consistency with WFD Objectives

The proposed GI works at Rogerstown Estuary have been assessed against the objectives of the Water Framework Directive and are considered consistent with these objectives for the following reasons in the table below.

Table 4 - WFD Objectives Compliance

Policy Compliance Heading	Compliance Commentary
Protection of Water Quality	▪ The proposed GI works are temporary, localised and limited in duration, and are required solely to collect geotechnical information to inform the design of the Fingal Coastal Way scheme. ▪ The works will not involve dredging, reclamation, disposal of material at sea, or the discharge of pollutants to the aquatic environment. ▪ Pollution prevention measures will be implemented throughout the works, including controls on fuel storage and refuelling, drilling operations, waste management and spill response procedures. ▪ The proposed investigations are not expected to adversely affect water clarity, salinity, dissolved oxygen concentrations, nutrient levels, temperature or other water quality parameters beyond the immediate work area and duration of the investigations.
Hydro morphology and Waterbody Status	▪ The proposed investigations are small-scale and temporary and will not alter the morphology, flow characteristics or hydrological regime of Rogerstown Estuary. ▪ No permanent structures will be installed as part of the proposed maritime usage and all investigation locations will be reinstated following completion of works. ▪ The proposed works will not result in any permanent changes to sediment movement, tidal processes or waterbody connectivity.
Protection of Water-Dependent Habitats and Species	▪ The proposed works are located within and adjacent to the Rogerstown Estuary SAC and SPA and have therefore been designed with environmental protection as a key consideration. ▪ Appropriate environmental controls and mitigation measures will be implemented to minimise potential impacts on aquatic habitats, water-dependent species and designated sites. ▪ The temporary and localised nature of the investigations means that no significant effects on aquatic ecosystems are anticipated.
Invasive Non-Native Species	▪ The movement of plant and equipment can present a pathway for the introduction or spread of Invasive Non-Native Species (INNS). ▪ Appropriate biosecurity measures will therefore be implemented, including inspection and cleaning procedures for plant, equipment and personnel entering and leaving the site. ▪ These measures will minimise the risk of introducing or spreading INNS within Rogerstown Estuary.

5. Conclusion

The proposed GI works will provide baseline geotechnical information required to support the sustainable design and assessment of the Fingal Coastal Way Scheme.

Due to the temporary nature of the investigations and implementation of appropriate mitigation measures:

- The works will not cause deterioration in the status of any surface water or groundwater body.
- The works will not adversely affect protected areas or water-dependent habitats.
- The works will not compromise the achievement of Good Ecological Status or Good Chemical Status under the Water Framework Directive.
- The works will not conflict with the objectives of the Water Framework Directive or the River Basin Management Plan.

The proposed maritime usage is therefore considered consistent with the objectives of the Water Framework Directive and will not adversely affect the status of Rogerstown Estuary or any connected waterbody.