ATTACHMENT 4.5 CONSISTENCY WITH THE OBJECTIVES OF THE WATER FRAMEWORK DIRECTIVE

Remediation of the Former Irish Steel Works Factory Site

IE001330-TT-EN-XX-RP-Z-0008

Department of Defence

TETRA TECH

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1.1 Statement of Authority

The technical competence of the authors is outlined below:

Aoife Edgely is an Associate Marine Scientist in the Environmental Services Business Unit at Tetra Tech. She has over 15 years' experience in the marine science field and is a Chartered Environmentalist and a Full Member of the Institute of Environmental Sciences (IES). Aoife holds an honours degree in Environmental Science from Trinity College Dublin and a Master's in Marine Environmental Protection from Bangor University, Wales. MUL Aoife has delivered the environmental assessments for a wide range of marine and coastal projects, including environmental impact assessment (EIA), appropriate assessment (AA) and Annex IV species reports.

Rachael Shaw is a Project Scientist in the Environmental Services Business Unit at Tetra Tech. She holds a Bachelor's Degree in Marine Science from the University of Galway and Master's Degree in Climate Change and Managing the Marine Environment from Heriot-Watt University Edinburgh. She has five years' experience working in consultancy, assisting on a wide range of projects from offshore renewable energy projects to flood relief schemes, including marine and terrestrial surveys. She is a full member with IES.

Róisín Murphy is a Scientist in the Environmental Services Business Unit at Tetra Tech. She holds an honours degree in Zoology (B.Sc.) and Master's degree in Marine Biology, both from University College Cork. She has two years' experience as a Project Manager at Cork Nature Network, responsible for marine and river surveys, and has one years' experience in marine licensing and environmental assessments at Tt. She is a qualifying member with IES.

2 Compliance with Objectives of the Water Framework Directive

This note on WFD compliance describes and assesses the potential impacts and effects of the proposed works on water aspects (water quality and hydrology) of the receiving environment.

The European Parliament and Council Directive 2000/60/EC, establishing a Framework for Community Action in the Field of Water Policy, 2000, known as the Water Framework Directive (WFD), has been the main law for water protection in Europe. It applies to inland, transitional, and coastal waters as well as groundwaters.

An objective of the WFD is to achieve the protection of aquatic ecology and habitats, drinking resources and bathing waters through river basin management planning and monitoring. This objective is summarised as Good Ecological Status (GES) and Good Ecological Potential (GEP) for artificial or heavily modified waster bodies.

In addition to achieving good ecological and chemical status, a water body must achieve compliance with standards and objectives specified for protected areas, which include areas designated by the Bathing Water Directive; the Urban Waste Water Treatment Directive; the Shellfish Waters Directive; the Habitats Directive and the Birds Directive. Waters bodies that are compliant with WFD standards, but that contain protected areas that are non-compliant with protected area standards are downgraded to ‘less than good’ status.

As stated in the Project Description Document (**Attachment 3.1**), the proposed SI works will be conducted wholly on reclaimed land on Haulbowline Island in Cork Harbour. The SI works will be undertaken within the ISPAT Steelworks site which is bounded by a road and a sea wall. As stated below in Section 1.2, the SI works will utilise best practice measures and there will be no potential for any pollution event to occur within the marine environment.

The MUL Area on Haulbowline island is not within any WFD waterbody, however, Haulbowline Island is within Cork Harbour therefore, the Cork Harbour (IE_SW_060_0000) coastal waterbody is considered below. **Table 1-1** shows the key waterbodies that are hydrologically linked to Cork Harbour as well as their codes, type and distance from the proposed works.

Table 1-1: Waterbodies which overlap or are hydrologically connected to the proposed SI works

Waterbody Name	Waterbody Code	Waterbody Type	Distance from SI works
Cork Harbour	IE_SW_060_0000	Coastal	Within Cork Harbour

Waterbody Name	Waterbody Code	Waterbody Type	Distance from SI works
Lough Mahon	IE_SW_060_0750	Transitional	1 km northwest
Outer Cork Harbour	IE_SW_050_0000	Coastal	4 km southeast

The waterbodies listed in **Table 1-1** are within or hydrologically linked to SAC and SPA designated sites (i.e. Cork Harbour SPA and Great Island Channel SAC).

There are no nearby bathing waters that may be impacted by SI. The closest bathing water area is Fountainstown, is located 7 km south of the MUL Area, within outer Cork Harbour Cappagh. Fountainstown bathing water status is noted as 'good'.

As the proposed SI works will be confined to the ISPAT area (of which the MUL Area is confined) and is wholly on land, there is no potential for hydrological link with the proposed SI works.

Table 1-2: WFD status of the relevant waterbodies from 2010-2024

Waterbody	Overall WFD status			
	2010-2015	2013-2018	2016-2021	2019-2024
Cork Harbour	Good	Moderate	Moderate	Good
Lough Mahon	Moderate	Moderate	Moderate	Moderate
Outer Cork Harbour	Good	Good	Moderate	Good

2.1 Potential Impacts

As stated above, the proposed SI works will be conducted wholly on reclaimed land on Haulbowline Island in Cork Harbour. There is potential for water quality issues due to potential run off from the proposed SI works, but as the SI works will be conducted wholly on land (setback a minimum of 20 m from the sea wall) with limited potential for any pollution event to occur within the marine environment.

The SI works include trial pits and boreholes incl. SPT within the MUL Area on land utilising tracked excavator or where required using hand operated tools, with no potential for run off into the marine environment. Boreholes will be undertaken from a drill rig utilising a water flush and recirculation tanks, all flushings will be contained in a mobile bowser within the works zone for removal and treatment at a suitable off-site facility therefore there will be no water runoff from these activities while coring therefore there is no potential for any pollution event to occur within the marine environment.

This coupled with the overall WFD status of Cork Harbour, Lough Mahon and Outer Cork Harbour waterbodies are noted as moderate to good above, the SI works will not contribute to any risk of further deterioration in the overall WFD Status.

2.2 Standard best practice measures

See **Attachment 3.1** - Proposed Maritime Usage (report ref: IE001330-TT-EN-XX-RP-Z-0005) for further details.

- No trial pits or boreholes will be located within 20 m of the quay walls.
- No stockpiling of excavated soils / rock / concrete will be permitted. All excavations will be backfilled immediately, the ground reinstated and made safe.
- Existing access routes will be utilised by heavy machinery with no temporary construction of access roads / floating roads proposed.
- No direct discharge to ground from any element of the works will be permitted.
- The contractor will monitor weather forecasts for heavy rain and where required, certain works will cease to minimise potential for surface water run-off. Operations shall be carried out so as to minimise sediment runoff, and will not be completed during periods of prolonged or heavy rain (i.e. Met Éireann Orange rain warning);
- All machinery will be routinely checked to ensure no leakage of oils or lubricants occurs during the works. Any spillages will be immediately contained, and any impacted soil removed from the site and disposed of properly;
- The contractor will be required to have fully stocked on-site spill kits within each active works zone; and
- An Environmental Incident and Emergency Response Plan detailing the steps to be undertaken in the event of a spillage of chemical, fuel or other hazardous materials will be put in place by the contactor prior to commencement of works.

2.3 Conclusion

As demonstrated within this document and considering potential impacts on hydromorphology, biology and water quality, the GES status of the WFD coastal and transitional water bodies in proximity to the proposed SI works will not be compromised. The implementation of standard best practice measures, as outlined in **Section 2.2**, will further ensure that the GES of relevant WFD waterbodies will be maintained during SI works.

It can be concluded that SI works will not compromise progress towards achieving GEP or cause a deterioration of the overall GES of relevant WFD waterbodies. Neither will SI works compromise the qualifying features of protected areas. Therefore, the SI works proposed under this MUL application are fully compliant with the WFD.