

Consistency with the Water Framework Directive

Sustainable seaweed harvesting practices in the intertidal zone are designed to preserve water quality by ensuring that harvesting activities are temporary, low-intensity, and conducted with minimal disruption to the marine environment. Harvesting operations by Arramara Teo specifically target the intertidal zone, where any disturbance is limited to the rocky substrate and is consistent with natural, frequent wave actions.

The potential for pollution from these activities is low. Refuelling of Arramara Teo's harvesting vessels does not occur on the foreshore, eliminating a primary risk of contamination. Additionally, all vessels engaged in harvesting comply with the International Convention for the Prevention of Marine Pollution from Ships (MARPOL) to ensure best practices are followed, minimising potential contamination risks. Standard operating procedures (SOPs) include protocols for spill prevention and on-site containment equipment, although the likelihood of any spill event is low. No significant fuel reserves are stored near harvesting sites, further reducing any pollution risk from fuel handling.

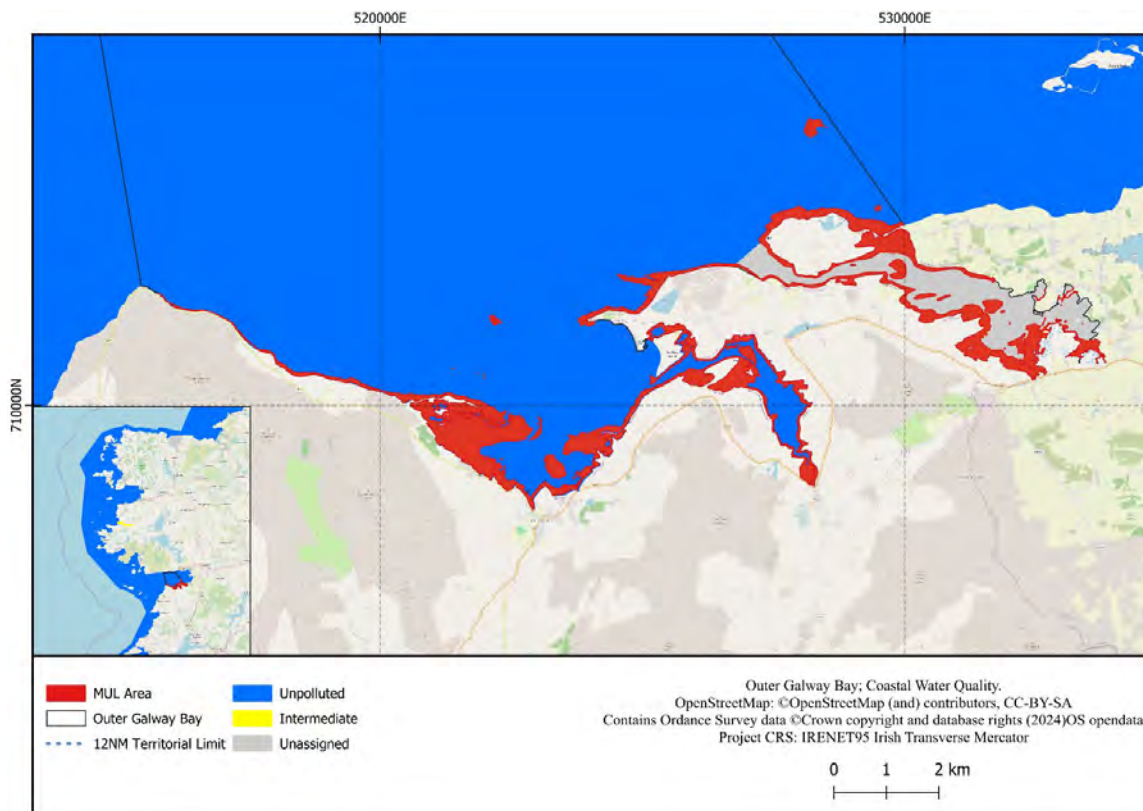


Figure 1 - Coastal water quality in the vicinity of the proposed MUL area

Vessels used for harvesting activities are fully certified by the Maritime Safety Office, and operations release no harmful substances into the marine environment. Compliance with all relevant maritime standards, including the Water Framework Directive (WFD), ensures a

negligible risk of accidental pollution. The waters within the entire MUL area are classified as unpolluted under the WFD (Figure 3). Arramara Teo's harvesting operations are expected to maintain these classifications through environmentally responsible practices.

The likelihood of sediment disturbance from boat motor operations is minimal, highly localised, and short-term. Given the low level of harvesting within the bay, these activities do not alter tidal currents, wave action, or sediment transport processes, preserving the hydrodynamics and sedimentology of the intertidal zone.

Importantly, no offshore Special Areas of Conservation (SACs) or marine Special Protection Areas (SPAs) are proximal to the harvesting zones. The closest SACs to the MUL area, such as the North-West Porcupine Bank SAC (IE002330) and the Porcupine Shelf SAC (IE002267), are situated at distances over 100 km, well beyond any area of influence. Similarly, Hovland Mound Province SAC (IE002328), South-East Rockall Bank SAC (IE003002), and Belgica Mound Province SAC (IE002327) are located even further offshore. The absence of marine SPAs along Ireland's western seaboard (Figure 4) underscores that no impact on protected marine zones is anticipated.

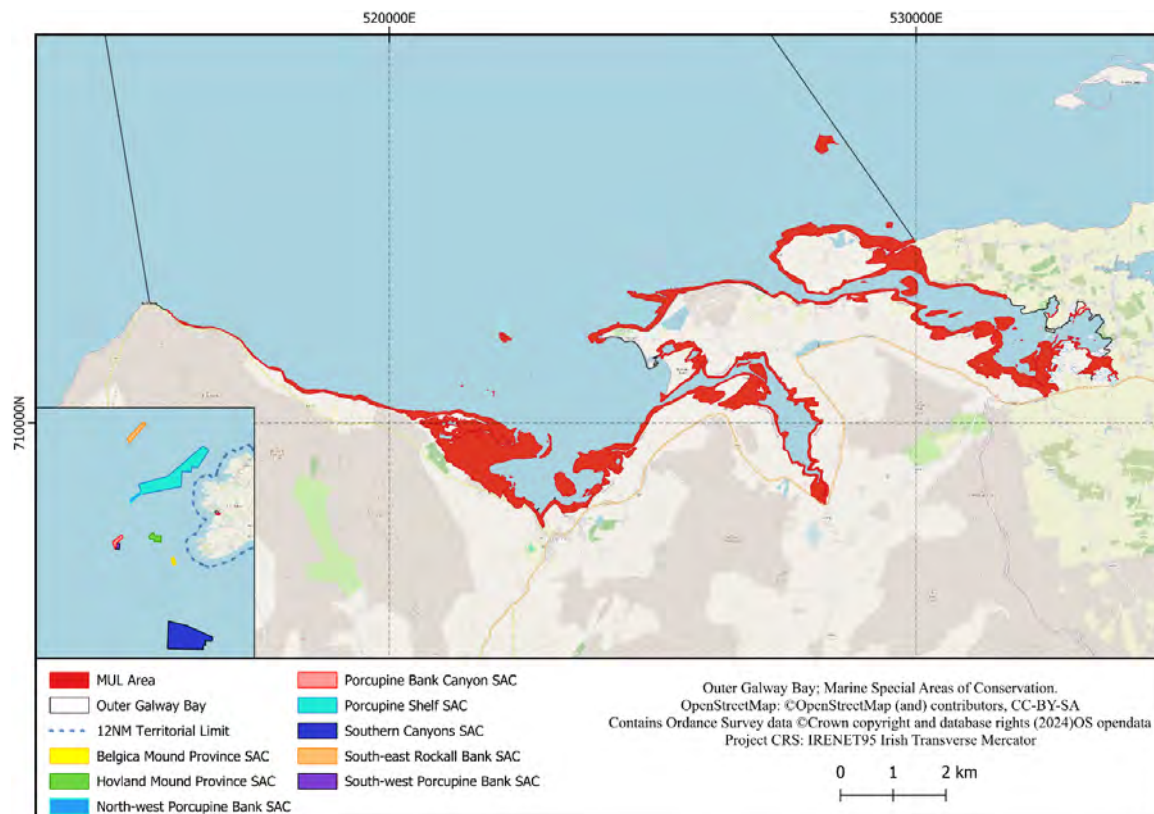


Figure 2 - Marine Special Areas of Conservation in relation to the proposed MUL area

Overall, Arramara Teo's sustainable harvesting practices for *Ascophyllum* and *Fucus* adhere to stringent environmental protection standards, ensuring that the water quality and marine ecosystems within the MUL area remain unaffected. Given these sustainable methods, and even



Attachment 4.5

in the absence of additional mitigation, the potential for any significant impact on water resources within the MUL area is negligible.

Mitigation Measures:

None required.

Statement of Consistency with the Water Framework Directive

The Water Framework Directive (WFD), as established in Article 4, aims to protect, enhance, and restore all water bodies, ensuring they achieve "good ecological and chemical status" (GES) while preventing any deterioration. Arramara Teo's proposed seaweed harvesting activity aligns with these objectives, with an assessment indicating no significant adverse effects on local water bodies.

The proposed harvesting operations are restricted to rocky intertidal zones, avoiding direct interference with inland, transitional, or coastal waters that fall under the WFD. No pollutants, chemicals, or harmful substances will be released into the environment, as all vessels involved adhere to International Convention for the Prevention of Pollution from Ships (MARPOL) standards, effectively minimising the risk of spills or contamination. Additionally, no refuelling of vessels takes place on the foreshore, further safeguarding water quality.

While temporary and minimal sediment mobilisation may occur, this effect is both localised and short-lived, ensuring no sustained impact on water quality. These conditions fulfil WFD objectives by maintaining the status of water quality and preventing any deterioration due to the proposed seaweed harvesting.

In conclusion, sustainable seaweed harvesting project proposed by Arramara Teo is consistent with the objectives of the WFD. The proposed activities are not anticipated to compromise the chemical or ecological status of local water bodies and will support the continued attainment of good water quality status in the region.