

## MUL230037 – Newport, Co. Mayo. RFI 14/8/25 and 29/08/25

### 1. Provide details of the expected frequency and duration of the proposed LiDAR

Assessment of Impacts of the Maritime Usage page 3 states: “The licence is sought for a period of five years to enable works to be scheduled and completed in favourable weather conditions. The commencement of the surveying will be dependent upon the issuing of the maritime usage licence”. Supporting Information for Screening for Appropriate Assessment page 2 states: “Deployment of a drone to conduct a Light Detection and Ranging (LiDAR) survey to establish bathymetry of site”. It is a ‘one-off survey’ to establish the bathymetry of the area of interest. It is envisaged that in favourable weather conditions the LiDAR survey would be completed in the region of 5 to 7 days.

Uisce Éireann also note that in line with the definition of the “Maritime Area” as set out in the Maritime Area Planning Act 2021 and the “Foreshore” as set out in the Planning and Development and Foreshore (Amendment) Act 2022, LiDAR survey activities are taking place outside the Maritime Area. These activities have been included in documentation for Appropriate Assessment Screening as they form part of the overall study monitoring campaign, however Uisce Éireann is not seeking consent for these LiDAR activities from MARA.

Uisce Éireann also consider LiDAR surveys to be passive and observational in nature in line with MARA Circular MP01/2025.

### 2. Provide further information on the expected frequency and duration of the MBES surveys.

Assessment of Impacts of the Maritime Usage page 3 states: “The licence is sought for a period of five years to enable works to be scheduled and completed in favourable weather conditions. The commencement of the surveying will be dependent upon the issuing of the maritime usage licence”. Supporting Information for Screening for Appropriate Assessment page 2 states: “Deployment of Multi Beam Echo Sounder (MBES) to complement the LiDAR dataset.” It is a ‘one-off survey’ to establish the bathymetry of the area of interest. It is envisaged that in favourable weather conditions the MBES survey would be completed in the region of 5 to 7 days.

### 3. Water sampling pontoons:

- a) Submit a map showing the locations of the proposed water sampling pontoons (map should be provided in line with MARA Technical Guidance)
- b) Provide the dimensions of the proposed water sampling pontoons to give an indication of scale
- c) Clarify if it is intended that the water sampling pontoons will remain in place for the duration of the proposed maritime usage, or will they be moved around to locations within the study area? If so, provide further information in this regard.

Assessment of Impacts of the Maritime Usage page 4 states: “There is limited water quality sampling data available adjacent to the outfall of the existing WWTP at Newport. To establish the baseline conditions, additional sampling will be necessary. Water quality sampling will be undertaken in Newport, Westport, and Clew Bay, as well as at the tidal limits of the three main contributing rivers flowing into the Bay(s). Sampling will be undertaken using pontoons preferably (e.g., sampling equipment mounted on buoys) or via a remotely controlled boat access (ARCBoat). An automatic sampler may be deployed to collect water samples or samples may be taken manually depending on available access.”

The static pontoons/buoys were proposed to provide flexibility for a contractor to obtain the samples with minimal boat movements. Their locations cannot be prescribed at this time as a contractor has not been appointed and engagement with local maritime users has not been undertaken. In the interests of transparency, if pontoon/buoy’s locations need to be prescribed as part of this application, we propose to withdraw them as a method for obtaining samples.

The proposed sample locations were provided in Supporting Information for Screening for Appropriate Assessment page 4 figures 1-3 and 1-4:

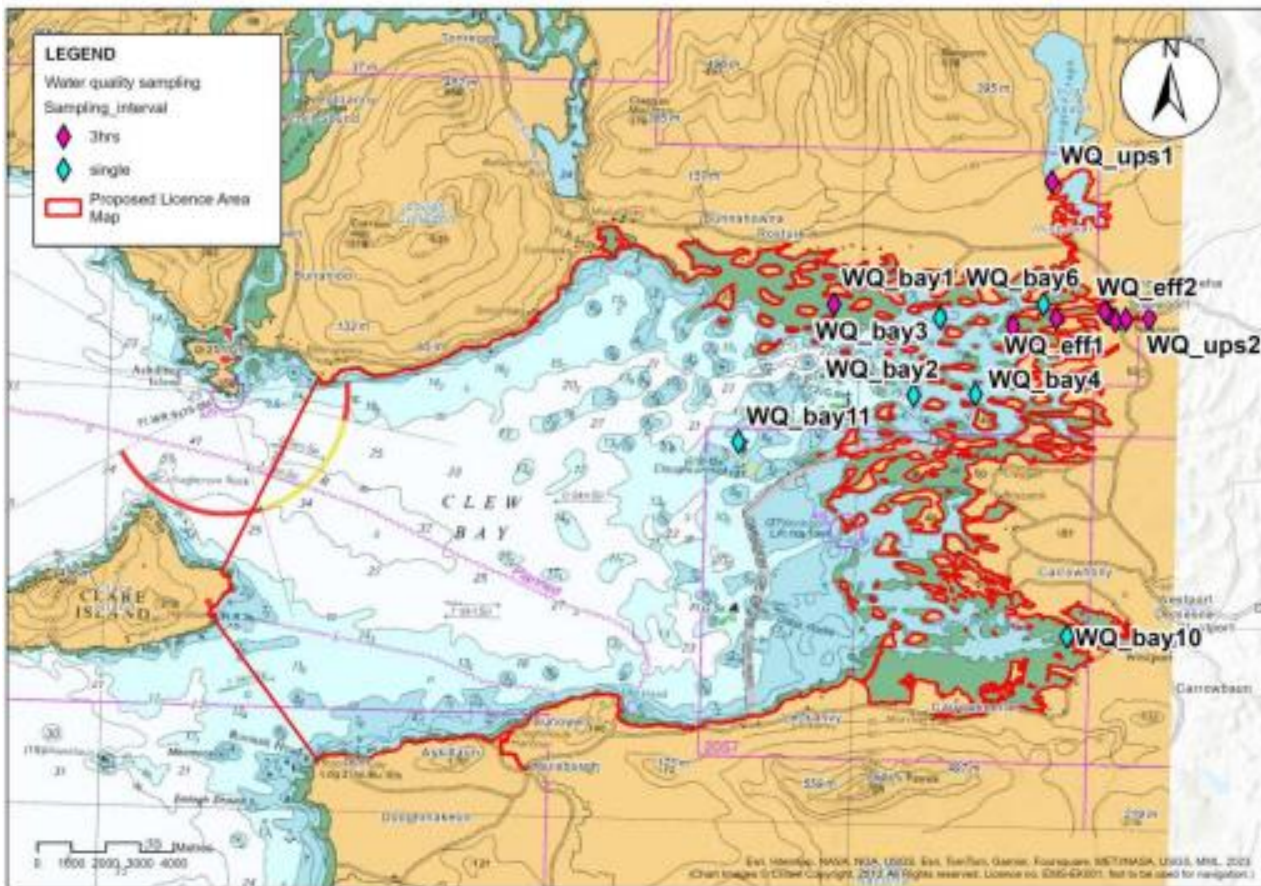


Figure 1-3: Proposed sampling locations for water quality surveys in Clew Bay.

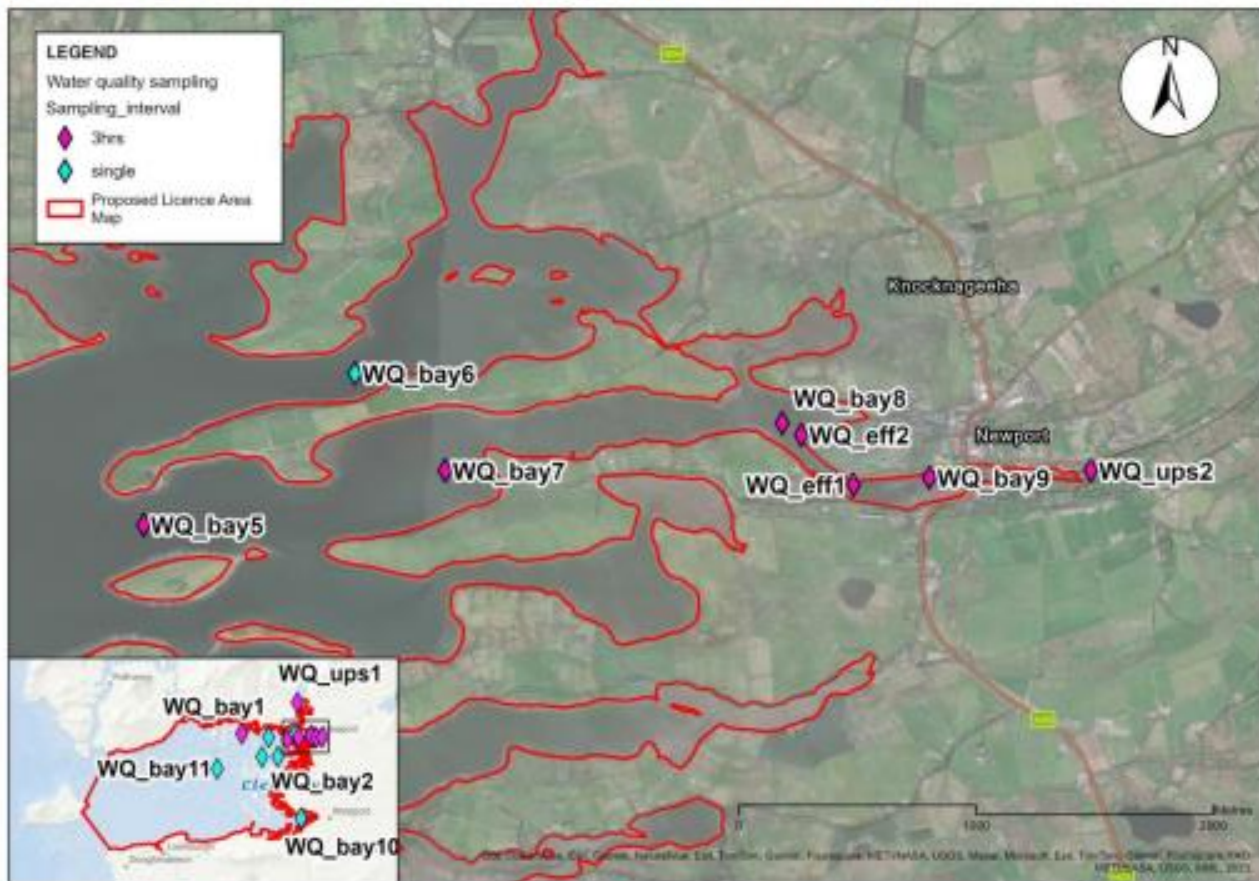


Figure 1-4: Close up of proposed sampling locations for water quality surveys in inner bay Clew Bay.

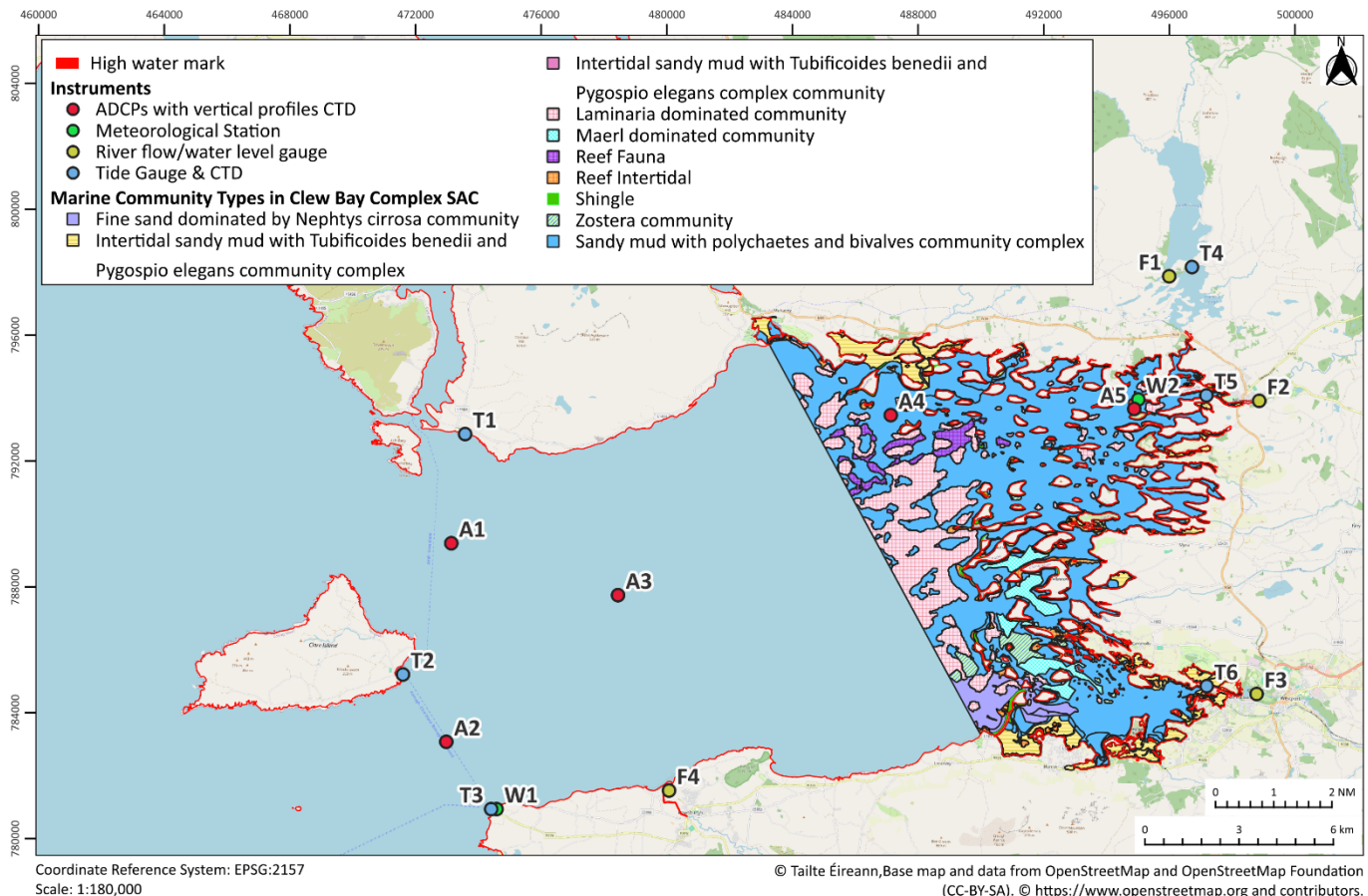


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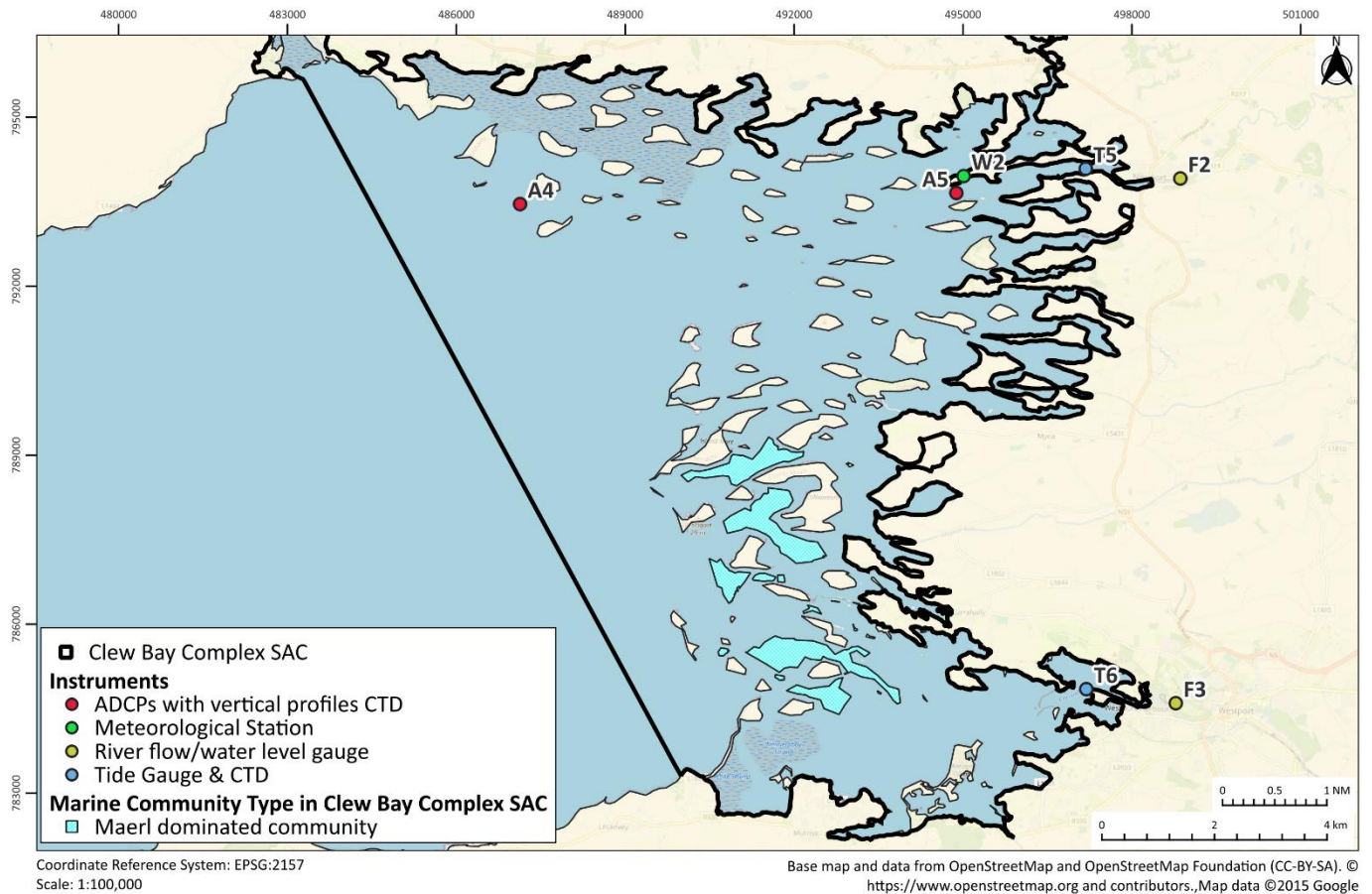
4. Regarding the locations of the ADCPs labelled A4 and A5, situated within the Clew Bay Complex SAC, confirm that these ADCPs will not be located on Reef or on maerl dominated communities.

Supporting Information for Screening for Appropriate Assessment page 27 states: “Though most current meter deployments occur outside SACs, the deployment of two meters (A4 & A5) occurs within the Clew Bay Complex SAC area”.

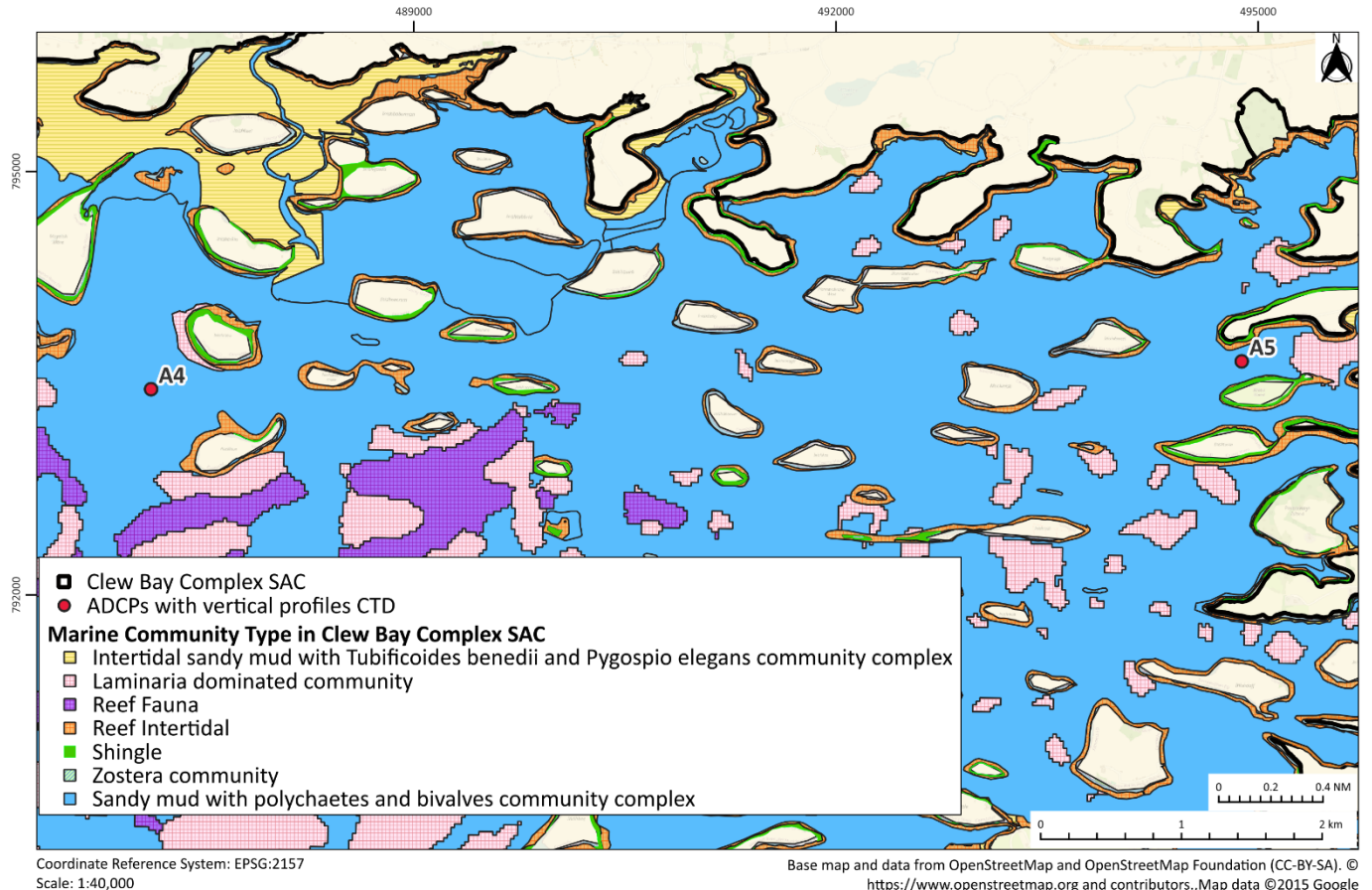
The application form part 5 states: “Survey equipment will be sited with due regard for other activity in the area at the time of deployment.” The survey contractor will be advised of the sensitivity of the siting of A4 and A5 to avoid placement on Reef or on maerl dominated communities. A map of instruments and locations regarding marine benthic community types for Clew Bay SAC is provided below.



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Map of instruments and locations regarding Maërl habitat for Clew Bay SAC.



Locations of ADCPs A4 & A5 regarding the marine benthic community types in Clew Bay SAC types.

5. In relation to the proposed dye tracing studies provide details of the following:

- a) The maximum number of dye tracing studies to be carried out
- b) The number of dye release events per survey
- c) Submit a map showing the exact location(s) of the dye release point(s) (map should be provided in line with MARA Technical Guidance)
- d) The time of year that the studies are expected to be carried out
- e) The expected duration of each dye tracing study.

(part a, b, and e response).

Supporting Information for Screening for Appropriate Assessment page 28 states: "Dye will be released from the baseline discharge locations and will be undertaken during the ebb of spring tides and neap tides on at least three occasions". It is envisaged that a dye tracing study will be successfully completed once in an ebb tide and once in neap tide. The duration of the study is the tidal cycle when dye is released (one release to be observed for 24 to 48 hours per study). Contingency is being made by stating "on at least three occasions" to allow for a single survey run being unsuccessful. The intention would be to minimise the number of surveys completed to minimise time, cost, and presence on site.

(part d response)

Schedule TBC when licence granted, good weather to observe the dye would be preferable. Assessment of Impacts of the Maritime Usage page 3 states: "The licence is sought for a period of five years to enable works to be scheduled and completed in favourable weather conditions. The commencement of the surveying will be dependent upon the issuing of the maritime usage licence".

(part c response).

The dye release point would be one of the existing WWTW outfall locations 229100414-MMD-New-00-DR-C-2006 attached.

6. Submit a dispersion model showing the expected dispersion (spatial and temporal) of the dye plume within the study area. The model should take in to account any possible interactions with Protected Areas for economically significant aquatic species and areas designated as bathing waters as defined in Annex IV of the Water Framework Directive.

The application form part 2.5 states: "The survey works are to inform water quality models supporting Uisce Éireann's capital delivery programme to improve wastewater treatment for the public good. No permanent works are proposed; all survey equipment will be removed following completion of data acquisition."

A dispersion model is the proposed output of the study, hence the need to acquire the data requested in this application to develop the model. The dye is to enable the modelling team to see the normal pattern of effluent from the existing treatment works (the existing plume). Supporting Information for Screening for Appropriate Assessment page 34 states: "Dye tracing will be carried out with Rhodamine WT below the maximum allowable concentration quality standard set out in Skjolding et al., 2021 of  $>910 \mu\text{g/L}$ . The effects of the microbial dye tracing are considered to not be significant and are therefore screened out for further assessment."

Rhodamine WT is not listed as a priority or hazardous substance under the EU Water Framework Directive or OSPAR, and as such, no statutory environmental quality standard (EQS) applies to its use. It is widely employed as a water tracer because even very low concentrations it is easily detectable, allowing applications to remain well below levels of ecotoxicological concern. Once released into surface waters, Rhodamine WT is subject to photolytic degradation, with rate coefficients in natural sunlight ranging from approximately  $0.0316\text{--}0.0477 \text{ day}^{-1}$ , corresponding to half-lives of only 1–3 weeks depending on season and latitude (Smart & Laidlaw, 1977; Wilson et al., 1986; Tai & Rathbun, 1988). The dye's high-water solubility and low lipophilicity mean that it does not readily partition into sediments or organisms, and empirical evidence from structurally related compounds indicates very low

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bioconcentration potential (Environment and Climate Change Canada, 2010). In the context of Clew Bay SAC, these properties indicate that Rhodamine WT poses no plausible pathway for accumulation in mudflat or estuarine communities, nor in food-web species such as infaunal invertebrates or fish. Marine mammals using the bay are not expected to be affected, as exposure concentrations will be several orders of magnitude below known toxic thresholds and the dye has no bioaccumulation potential. Any visual dye plume is expected to be temporary and locally confined, dissipating with tidal mixing, and thus would not compromise conservation objectives related to habitat integrity, community composition, or species health.

7. With reference to the strict protection of species listed under Annex IV of the Habitats Directive (92/43/EEC), confirm if you are required to apply for a derogation under Regulation 54 of the European Communities (Birds and Natural Habitats) Regulations 2011, as amended. If yes, provide details of the application submitted, including the NPWS Derogation Number.

A derogation under Article 16 of the Habitats Directive is not required for the proposed Project, as the works will not result in injury, killing, or deliberate disturbance of Annex IV species. The principal species of concern in Clew Bay and adjacent SACs are harbour porpoise (*Phocoena phocoena*), bottlenose dolphin (*Tursiops truncatus*) and otter (*Lutra lutra*) with consideration for grey seal (*Halichoerus grypus*), harbour seal (*Phoca vitulina*) also. The temporary nature and small footprint of the tidal gauges, current meters and weather station will not obstruct movements or habitats used by these species. Vessel activity will be infrequent and at low speeds, minimising collision risk. Acoustic outputs from the MBES and ADCPs occur at high frequencies outside the hearing range of cetaceans and seals and therefore will not cause disturbance. Rhodamine WT dye, which will be used for dispersion tracing, degrades rapidly, does not bioaccumulate, and has no known toxicological effects at the concentrations proposed. No haul-out sites, resting areas or critical habitats will be lost or functionally affected. Accordingly, the proposed works do not pose a risk of significant effects on Annex IV species and there is no legal or ecological basis for seeking a derogation licence.

### **REFERENCES**

- Environment and Climate Change Canada (2010). *Screening Assessment for the Challenge: Rhodamines Group*. Government of Canada.
- Smart, P.L., & Laidlaw, I.M.S. (1977). An evaluation of some fluorescent dyes for water tracing. *Water Resources Research*, 13(1), 15–33.
- Tai, D. Y., & Rathbun, R. E. (1988). Photolysis of rhodamine-WT dye. *Chemosphere*, 17(3), 559–573.
- Wilson, J. F., Cobb, E. D., & Kilpatrick, F. A. (1986). *Fluorometric procedures for dye tracing*. Department of the Interior, US Geological Survey.