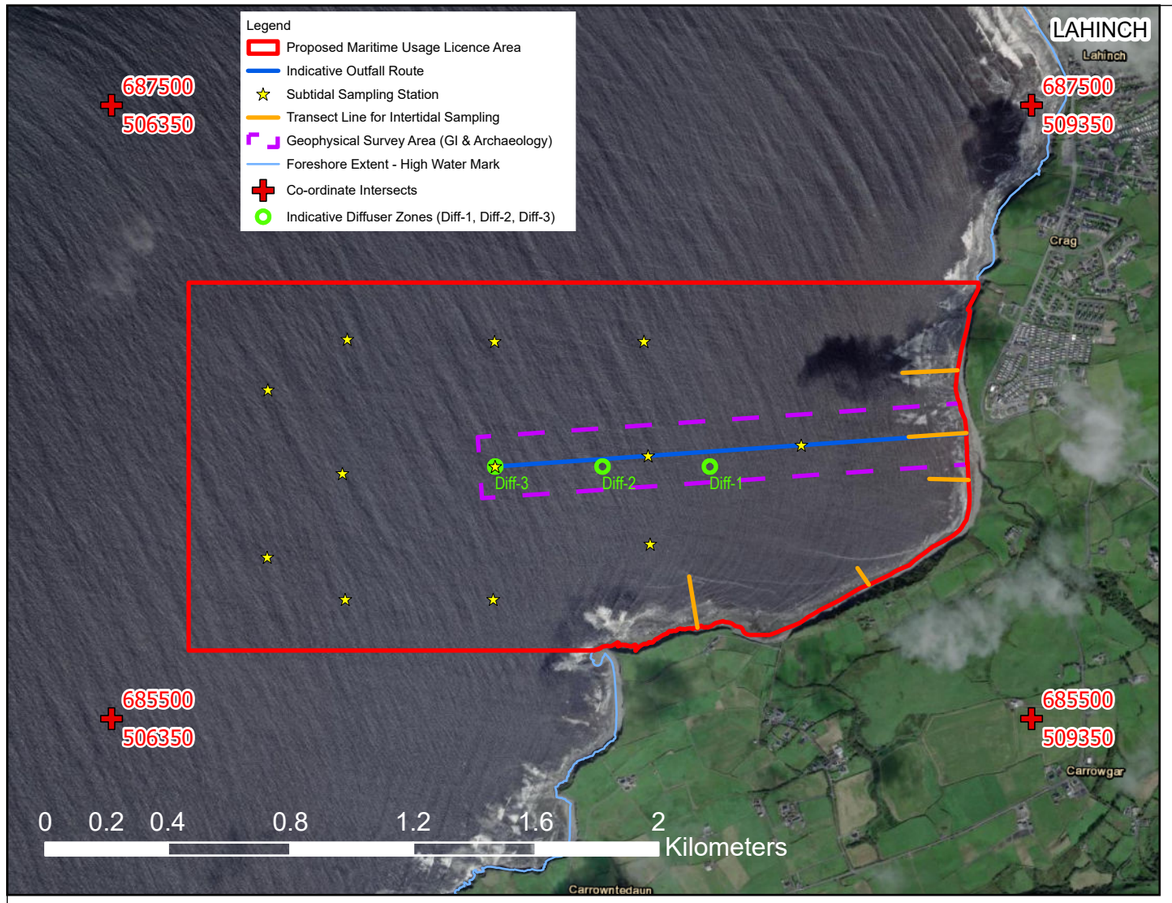
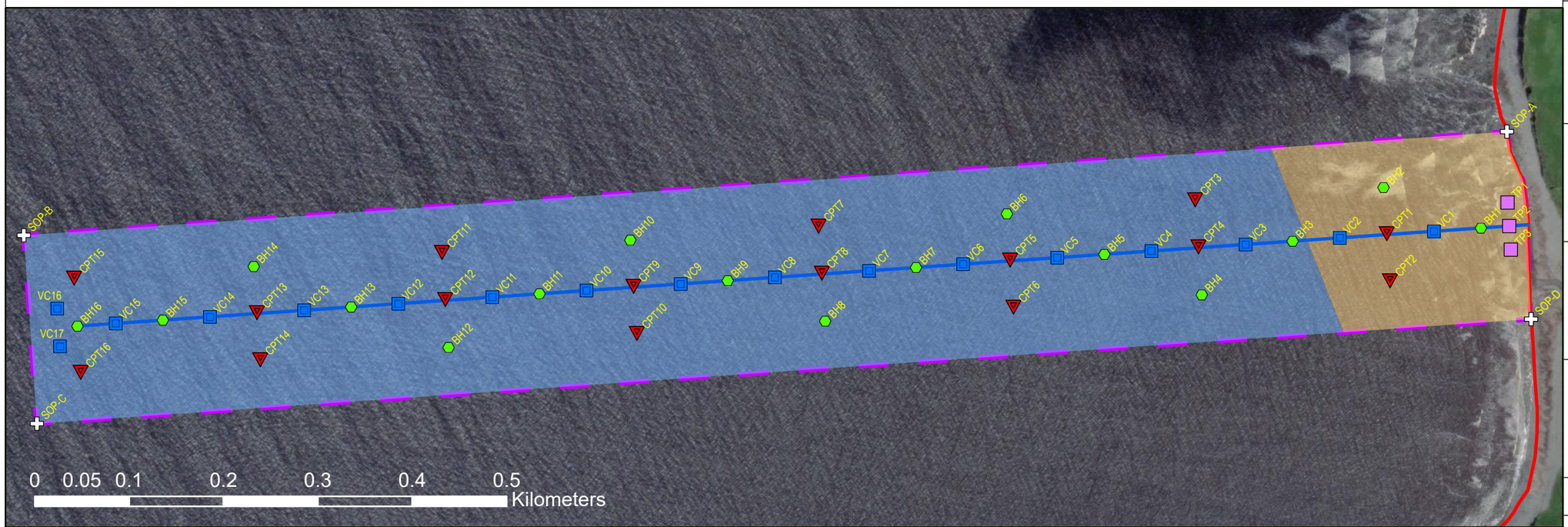


LOCATION MAP & ECOLOGICAL INVESTIGATIONS

NOTES:

1. For Maritime Usage Licence (MUL) application (Ref. MUL260006) purposes.
2. All exploratory hole positions and extents of marine surveys are indicative and are subject to finalisation in the marine outfall design development and prior to the implementation of the ground investigation site works.
3. Marine surveys are to be implemented, and the results reviewed and evaluated, prior to finalisation of exploratory hole positions and the execution of these intrusive works.
4. Ground investigations and surveys are to be undertaken for ground characterisation purposes to enable the detailed design and construction of the marine outfall. The construction approach for the marine outfall and the specific location of the diffuser head are yet to be determined, and will be subject to the findings of the marine ground investigations.
5. Boreholes (BH) are to be undertaken through superficial deposits and into bedrock, and are positioned in a staggered configuration along and to either side of the indicative marine outfall alignment. 16 no. boreholes (typically 150-200mm diameter) are spaced at approximately 110m centres along the route. Licence to allow for up to 20 no. boreholes located within the marine GI site boundary to account for repositioning / redrills. Provisional depth of BHs is 30m below seabed level. Borehole BH1 may be undertaken using land-based plant if intertidal access permits, otherwise will be undertaken using an overwater platform.
6. Cone Penetration Tests (CPT) are to be undertaken through superficial deposits, and are positioned along and to either side of the indicative marine outfall alignment alternating with BH locations. 16 no. CPTs are spaced at varying centres at approximately 50 to 100m. Licence to allow for up to 20 no. CPTs located within the marine GI site boundary to account for repositioning in response to early refusal. Provisional depth of CPTs is 20m below seabed level. If shallow bedrock and/or stiff soils are encountered across the site from boreholes then the use of CPTs may be curtailed.
7. Vibrocores (VC) seabed sediment samples are to be undertaken within the superficial deposits and are positioned along the indicative marine outfall alignment, alternating with BH and CPT locations. 17 no. VCs (typically 100-150mm diameter) are spaced at approximately 100m centres. Licence to allow for up to 20 no. VCs within the marine GI site boundary. Provisional depth of VCs is 10m. If shallow bedrock and/or stiff soils are encountered across the site from boreholes then the use of VCs may be curtailed.
8. Trial Pits (TP) are to be undertaken within the intertidal zone, using land-based machine excavator, to investigate the depth to rockhead and rock excavatability at the location of the outfall alignment. Provisional size of TPs are 1.5m wide, 3m long and up to 4m deep (subject to stability of side walls). Depending on the ground conditions encountered, the depth of pits be curtailed.
9. Any ground investigations proposed beyond the High Water Mark on the land are not subject to marine licence and as such are not included on this drawing.
10. The ground investigation scope and layout as depicted on this drawing is based on the longest potential outfall length. Should a shorter outfall length be confirmed prior to or during the implementation of the marine GI, then the scope of the investigation may be reduced and holes locally repositioned accordingly within the marine GI site boundary.
11. The following marine surveys are to be carried out within the marine GI site boundary, to provide full coverage of the area (A,B,C,D) as defined on this drawing:
- Bathymetric: for determining water depths and seabed levels across the site
- Side Scan Sonar: for mapping and characterising the seabed surface features
- Magnetometer: for identifying the presence of any metal objects and debris on or near the seabed
- Sub-bottom Profiling: for characterising the nature and stratification of the subsurface ground conditions



GI & ARCHAEOLOGICAL INVESTIGATIONS

Date : 02/07/2026

Legend
- Proposed Maritime Usage Licence Area
- Indicative Outfall Route
- Geophysical Survey Area (GI & Archaeology)
- Borehole (BH)
- Cone Penetration Test (CPT)
- Vibrocore (VC)
- Trial Pit
- Setting Out Point
- Archaeolgical Dive Survey Area
- Archaeolgical Wade Survey Area
- Foreshore Extent - High Water Mark

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Projection: Transverse Mercator; Datum: IRENET95

Data sources: Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community, Esri, USGS, Esri, HERE, Garmin, Microsoft

MOTT MACDONALD

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Uisce Éireann
Irish Water

MUL Ref - PA MUL 034
Lahinch & Ennistymon
Maritime Usage Licence Application
Map 5 - Marine Investigations

Drawn	GIS Checked	Checked	Approved
D Gallagher	E Tiri	J Hegarty	M Smith
Scale at A3	Status	Revision	Security
1:5,000	PRE	P2	STD

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