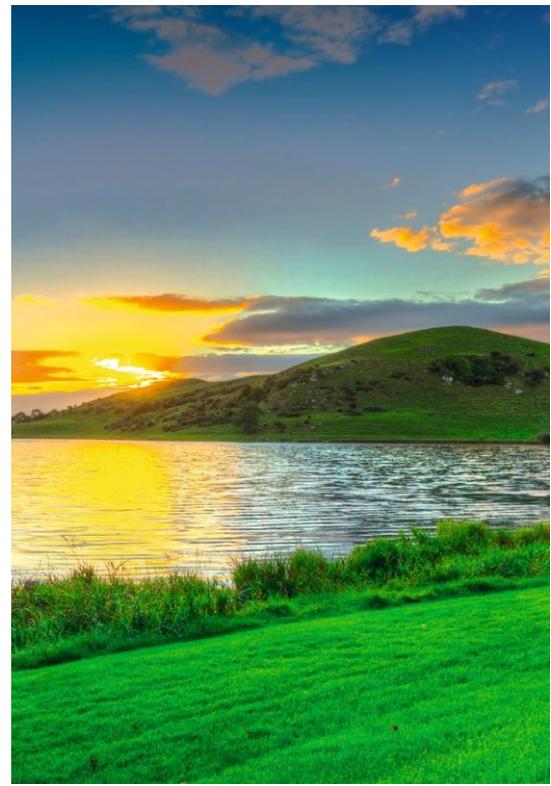


Marine Usage Licence Application Supporting Information for AIMU



Client: Oceyon

Location: Irish South Coast

Project Ref: OCE0001-1

October 2025

Report Sign Off Page

CLIENT REF:	OCE0001-1		
DEVELOPMENT ADDRESS	IRISH SOUTH COAST		
REVISION	DATE	ORIGNATOR	REVIEWER
R01	21/11/2025	JB	MOD

IMPORTANT NOTICE

Whilst Rowan Engineering Consultants have taken reasonable steps to ensure that the information contained within this document is correct, you should be aware that the information contained within it may be incomplete, inaccurate or may have become out of date. The findings and recommendations contained in this report are based in part upon information provided by third parties, and whilst Rowan Engineering Consultants have no reason to doubt the accuracy and that it has been provided in full from those it was obtained from, the items relied on have not been verified. No responsibility can be accepted for errors within third party items presented in this report. Accordingly Rowan Engineering Consultants, make no warranties or representations of any kind as to the content of this document or its accuracy and accept no liability whatsoever for the same including for errors or omissions in it. Any person makes use of this report at their own risk and it is recommended that they seek professional advice from their own advisor whenever appropriate. None of the above mentioned persons shall be liable whether in contract, tort (including negligence) or breach of statutory duty or otherwise for any loss or damage suffered as a result of any use of [the contents of this document] including direct loss, business interruption, loss of production, profits, contracts, goodwill or anticipated savings, loss arising from third party claims or any indirect or consequential loss (whether or not foreseeable). However, nothing in this disclaimer shall exclude or limit liability for death or personal injury resulting from the proven negligence of any person mentioned above or for fraud or any other liability which may not be limited or excluded by law.

Contents

1	Introduction.....	1
2	Project Description	2
2.1	Proposed Survey Equipment	3
2.1.1	Equipment	3
2.1.2	Vessel.....	4
2.2	Project Programme.....	4
3	Considerations.....	5
3.1	Environmental Impact Assessment (EIA) Directive	5
3.2	Water Framework Directive (WFD).....	5
3.3	Marine Strategy Framework Directive (MSFD).....	5
3.4	Planning & Development (including Statement of consistency with the National Marine Planning Framework (NMPF)).....	6
3.5	Marine Impact Assessment.....	6
3.6	Other Development or Cumulative Impacts -	8
3.7	Summary of Controls	8
3.8	Need for Mitigation	8
3.9	Summary of Mitigation and Monitoring.....	8
3.10	Conclusions.....	8

1 Introduction

To ensure MARA can fully assess all potential impacts of a proposed maritime usage, all applicants are required to submit the Assessment of Impacts of the Marine Usage (AIMU) Report in support of their maritime usage license application. The scale and complexity of the AIMU should reflect the scale and complexity of the project. This report contains an analysis of the likely effects (positive and negative) for the proposed maritime activities involved in using ROV and AUV to survey a number of wrecks in the waters off Cork, Waterford and Wexford (**Figure 1-1**).

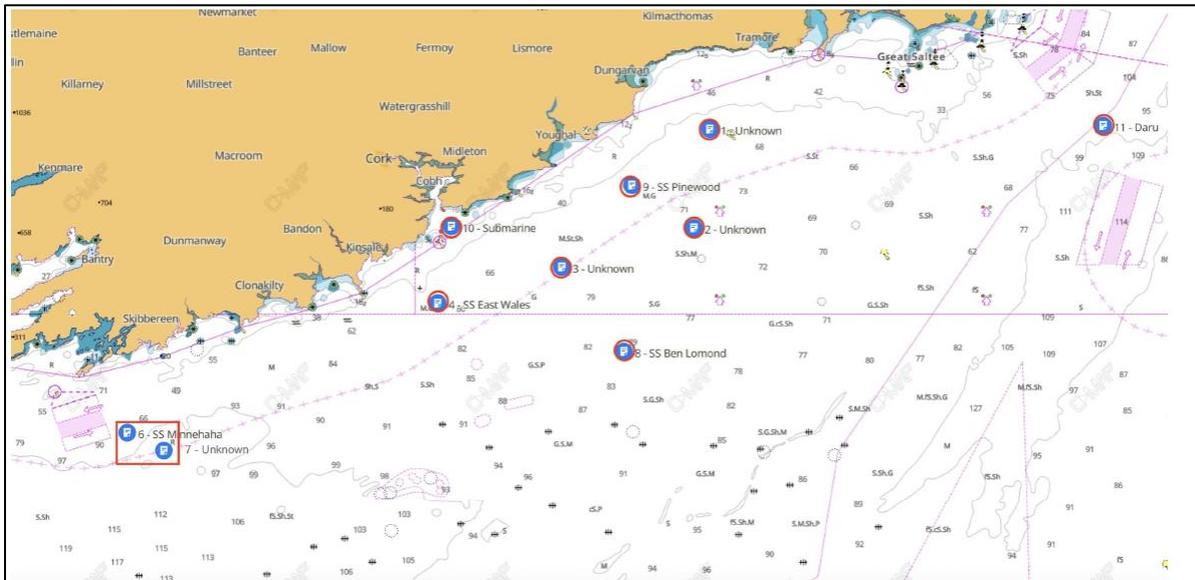


Figure 1-1: Proposed Survey Plan

2 Project Description

Oceyon are a compliance and technology company based in Switzerland, developing underwater technology on Remote Operated Vehicles (ROV) and Autonomous Underwater Vehicles (AUV) to survey and support salvage and safety interventions of anthropogenic structures (wrecks) by creating 3D and other models from data. This technology has been tested in alpine lakes in Switzerland, and the company now wish to test the methodology on marine shipwrecks.

The aim is to augment Oceyon's proprietary deep learning technology, which processes survey data into models. These models can be used to identify, wreck, identify historic seabed environmental or navigational risks and the output of the surveys can be used to provide public data analysis on heritage assets to the community at large.

Oceyon now wish to test the equipment in saline waters in the North Atlantic and have identified a number of wrecks off the south coast of Ireland to investigate. The assessment is based on non-invasive visual and acoustic surveys of the wrecks using ROV and AUVs deployed from a single small vessel.

The proposed Marine Usage Licence (MUL) is for a small, chartered vessel (up to 5 people and crew) to operate from coastal ports or harbours and visit a series of wrecks deploying remotely operated electric underwater vehicles (ROV and AUV) that will not disturb the wrecks, taking only photography and acoustic data scans. No divers will be used.

The proposal is for approximately one day surveys to each wreck site over the course of 2-3 week deployment period (**Figure 2-1** and **Table 2-1**)



Figure 2-1: Survey Plan

Table 2-1 Listing of proposed wrecks for survey

No	Name	Lat	Long	Length	Width	Depth	Distance from Coast (nm)
1	Unknown	51.96232	-7.31195	106	19	49.9	10
2	Unknown	51.74800	-7.36768	78	10.5	66.6	17
3	Unknown	51.66267	-7.82900	153.7	28	72.98	12
4	SS East Wales	51.58418	-8.26282	118	26.8	71.5	8
5	<i>removed</i>						
6	SS Minnehaha	51.30054	-9.34774	185	0	71.7	9
7	Unknown	51.26097	-9.21967	35.5	8.2	110.4	14
8	SS Ben Lomond	51.47836	-7.61222	96	17	74	25
9	SS Pinewood	51.84073	-7.58448	100	19	61.19	8
10	Submarine	51.75132	-8.21518	45	8	27	2
11	Daru	51.96990	-5.93738	113	15	88.7	20

2.1 Proposed Survey Equipment

The proposed survey is to deploy Remote Operated Vehicles (ROV) and Autonomous Underwater Vehicles (AUV) from a small 15m offshore craft to investigate wrecks off the southern coast of Ireland. The ROV will be deployed at each site, the AUV will be deployed only as required.

2.1.1 Equipment

The ROVs will be using the SeaTrac USBL by BluePrint for underwater positioning from a vessel and unit transponder.

ROV 1 equipped with:

- Sonoptix obstacle avoidance sonar dual frequency (400kHz and 700kHz)
- Tracker 650 DVL (Doppler velocity log) Frequency 650kHz
- Omniscan Side Scan Sonar Frequency 450kHz

ROV 2 equipped with:

- Oculus Imaging Sonar Dual Frequency 750kHz and 1200kHz
- Nortec 500 DVL Frequency 500kHz Noise Levels
- No Side Scan Sonar

AUV equipped with

- Side scan sonar 400kHz to 900kHz

2.1.2 Vessel

The equipment will be deployed from port and harbour facilities along the coast as needed. It is likely that the primary ports of call will be Cork Harbour or Youghal. The vessel is classed as a 15m crew transfer vessel. The proposed specification is outlined below (Table 2-2) The survey will be from this vessel or similar dependant on availability for the survey window.

Table 2-2 Proposed Vessel Specification

VESSEL SPECIFICATION			
VESSEL NAME	Fionn Mac Cumhail	TONNAGE	15.2 GT
CARGO	1t	BOLLARD PULL	3.28t
HULL MATERIAL	Marine grade aluminium	FUEL	Diesel
LENGTH OVERALL	16.1m	MAX SPEED	25 knots
BEAM	4.0m	FUEL BURN	120 litres per hour
DRAFT	0.6m	MAX WAVE HEIGHT	1.5m Hs
PASSENGERS &	12 PAX, 2 CREW	LICENCE	MSO P5 & MCA Cat. 2



Figure 2-2: Fionn MacCumhail vessel

2.2 Project Programme

The project will plan its deployment, subject to conditions and vessel availability upon the receipt of an MUL. Early planning was for October 2025; however, the project will await the appropriate licencing to commence the project programme. The next likely window for survey is Spring (March-April) 2026 or will be conducted at the next available window in 2026-7. The survey duration is approximately 14 days over a period of 2-3 weeks dependant on weather.

3 Considerations

3.1 Environmental Impact Assessment (EIA) Directive

Under the EU's Environmental Impact Assessment (EIA) Directive (2011/92/EU as amended by 2014/52/EU), major building or development projects in the EU must first be assessed for their impact on the environment. This survey constitutes a survey using remote operated vehicles from a small surface vessel and the technical equipment used, are non-invasive and small in scale, and therefore their impact on the seabed and the marine ecosystem is assessed as negligible. An EIA Screening has been conducted for this application. The project is not considered a category of development requiring an EIA, nor is there a significant risk to environmental aspects in relation to the proposed activities therefore an **EIAR is not required**.

3.2 Water Framework Directive (WFD)

The Water Framework Directive (WFD) focuses on ensuring good qualitative and quantitative health i.e. on reducing and removing pollution and on ensuring that there is enough water to support wildlife at the same time as human needs. The WFD is the main law for water protection in Europe. It applies to inland, transitional and coastal surface waters as well as groundwaters. Our study sites are offshore and not connected to any areas relevant for the WFD. Therefore, there is no need to consider the WFD for our proposed project.

3.3 Marine Strategy Framework Directive (MSFD)

The EU Marine Strategy Framework Directive (MSFD) was put in place to protect the marine ecosystem and biodiversity upon which our health and marine-related economic and social activities depend. In the directive it is stated that

"The marine environment is a precious heritage that must be protected, preserved and, where practicable, restored with the ultimate aim of maintaining biodiversity and providing diverse and dynamic oceans and seas, which are clean, healthy and productive".

The research is to test novel data analytical processes related to acquired sonar and multi-beam data from underwater vehicles. The research supports better understanding of wrecks and maybe used in the future with regard to survey and risk assessment of lost marine vessels (both environmental and navigational). Therefore, our objectives align with those stated in the MSFD directive.

Negative impacts stated in the MSFD is for example pollution, biodiversity loss, seabed damage, overexploitation, spread of non-indigenous species, marine litter, underwater noise, and ocean warming and acidification. The proposed survey equipment is of standard setup and orientation with the research focused on the post processing rather than acquisition. Surveys are of short duration focused on anthropogenic structures on the seabed. The technical equipment used, are non-invasive, and small in scale. Noise emission from the survey equipment is assessed as posing no significant impact to the marine environment, and is deployed of short duration (proposed as one day, limited to daylight hours per location) with suitable controls and assessment via the application of the DAHG 2014 Guidance to Manage the Risk to Marine Mammals from Man-made Sound Sources in Irish Waters, and appointment of a Marine Mammal Observer (MMO) for the survey.

Therefore, we do not assess any negative impacts on the objectives of the MSFD from our project.

3.4 Planning & Development (including Statement of consistency with the National Marine Planning Framework (NMPF))

We assess that the survey will have no impact on planning or development in the area, as the deployment is of very short duration and involves no contact with the seabed or the wrecks. Consequently, the project poses no potential effects on the environmental receptors as identified in the NMPF, including soils and seabed, water quality, fisheries and aquaculture, or landscape and seascape. Each environmental aspect is considered below.

3.5 Marine Impact Assessment

The presence of an operational vessel for one day per location will have negligible impact to any other marine users and the proposed survey sites are not within any major shipping lanes or port approaches,

Land & Soils - there will be no deployment of equipment to seabed or interaction with seabed

Water – there will be no risk to water quality from the survey as the project is limited to a short duration per site (1-2 working days), consists of a single vessel, and will be using non-invasive survey techniques to assess the wrecks. Any vessel refuelling is planned in existing inshore refuelling facilities.

Biodiversity – We assess the project will have no significant impacts to biodiversity. The project consists of operating a single vessel of moderate size and has no direct impact on biodiversity and negligible cumulative impact when considering its size operation and duration of survey in comparison to the volume of shipping in the area. Assessment of the vessel physical presence has no significant impact. No identifiable significant impact to fish or marine megafauna will occur from the survey.

Assessment of the noise output of the survey equipment and potential impacts to cetaceans and marine species is outlined in the Oceyon Annex IV species assessment report. There is no risk of damage or injury to marine species or habitats.

There is potential for temporary behavioural response to the survey. For marine mammals, behavioural disturbance is above the published thresholds from the operation of the side-scan sonar and USBL, with the maximum predicted disturbance range is 293m from the source. Vessel activities have very small, predicted disturbance ranges of 22m from engine noise. Duration at any site is less than one day (daylight hours only) and does not pose a risk of significant impact. Controls include an MMO and employment of the DAHG 2014 Guidelines.

Fisheries and Aquaculture We assess that there will be no significant impact on the fisheries and aquacultures in the area, as the survey is limited to a short duration per site, consists of a single vessel and is surveying locations not suitable for fisheries or aquaculture (wreck sites).

Air Quality There will be no impact on the air quality in the area, as the survey is limited to a short duration per site and consists of a single vessel.

Noise & Vibration Assessment of the noise output of the survey equipment and potential impacts to cetaceans and marine species is outlined in the Oceyon Annex IV species assessment report. There is no risk of damage or injury to marine species or habitats.

There is potential for temporary behavioural response to the survey. For marine mammals, behavioural disturbance is above the published thresholds from the operation of the side-scan sonar and USBL, with the maximum predicted disturbance range is 293m from the source. Vessel activities have very small, predicted disturbance ranges of 22m from engine noise. Duration at any site is less than one day (daylight hours only) and does not pose a risk of significant impact. Controls include an MMO and employment of the DAHG 2014 Guidelines.

Landscape/Seascape We assess that there will be no significant impact on the landscape/seascape in the area, as the survey is limited to a very short duration per site, are temporary in nature and consist of a single vessel in areas of existing marine traffic.

Traffic & Transport (including navigation) That there will be no significant impact on the traffic and transport in the area, as the survey is limited to a short duration per site, consists of a single vessel onsite for daylight hours, and controls include publishing of a Notice to Mariners to inform other maritime users.

Cultural Heritage (including underwater archaeology) We assess that there will be no risk of significant impact on cultural heritage, as the purpose of the survey is to collect additional information on wreck sites using non-invasive technologies only.

Population & Human Health We assess that there will be no impact on population and human health due to the survey.

Major Accidents & Disasters We assess that the survey presents no risk of major accidents or disasters. It uses non-invasive technologies only, with no seabed contact, no hazardous materials, and minimal vessel activity. Standard navigational practices and operation only in suitable weather conditions further minimise any risks. While the survey's purpose is to test technology that may later help assess risks from aged wrecks, the current activity has a negligible risk of significant impact.

Climate We assess that there will be no significant impact on the climate, as the project involves only a single vessel operating for a short, two-week period, resulting in minimal fuel use and negligible associated emissions

Waste The survey will not generate any waste through the activities. Any small amounts of waste generated on board vessel (e.g. food or packaging waste) will be secured on the boat and disposed of ashore through normal waste collection. No hazardous or special wastes are anticipated nor planned.

Material Assets The survey is non-invasive and will not impact any existing infrastructure. Vessel operations are of very short duration, typically only several hours per wreck site, with the possibility of a brief revisit. As such, the temporary vessel presence will not affect shipping, fishing, or other maritime users.

Interactions: We see no potential interactions to consider, due the very short duration of presence on any one site and the fact the project will not deploy any infrastructure, leave no

lasting presence or engage with the seabed in any way. There are no interactions between the environmental aspects noted.

3.6 Other Development or Cumulative Impacts -

The project does not constitute a development as defined under the EIA Regulations. No infrastructure will be deployed, and the survey is mobile and of short duration. Given the limited scale and temporary nature of the activity, no cumulative effects are anticipated.

3.7 Summary of Controls

No specific controls are required for the project.

Oceyon will employ a Marine Mammal Observer (MMO) and will apply the DAHG (2014) Guidance to Manage the Risk to Marine Mammals from Man-Made Sound Sources in Irish Waters throughout the survey. This includes the MMO on board for the full duration of operations.

A Notice to Mariners will be issued to inform other maritime users of the activity, and MARA will publish the MUL on its website.

Vessel operations will be limited to daylight hours, with the vessel returning to port each day for refuelling, maintenance, and the offloading of personnel or waste through registered facilities.

3.8 Need for Mitigation

No potential significant impacts have been identified for this survey; therefore, no additional mitigation measures are deemed necessary beyond the standard controls and best-practice procedures already outlined.

3.9 Summary of Mitigation and Monitoring

No additional mitigation or monitoring is required, as no significant impacts are predicted.

Standard control measures will be implemented, including the presence of an MMO in accordance with the DAHG (2014) guidelines.

Oceyon will provide MMO observation records to MARA and NPWS following the survey.

While processing of survey data is proprietary, Oceyon has committed to sharing the survey results with the wreck owners and the Department of Housing, Local Government and Heritage (Wreck Unit) after completion of the survey.

3.10 Conclusions

No potential significant impacts are identified for this survey and therefore no mitigation is required.

The survey is of short duration, with no deployment of any infrastructure and therefore will have no footprint except the physical vessel presence and survey operation for approximately one day per wreck site over a two-week period. Effects are classed as Insignificant and of temporary in nature and therefore a Negligible risk of impact.