

AN ASSESSMENT OF CURRENT PRACTICE AND BEST PRACTICE FOR MARINE MAMMAL OBSERVATIONS AND BIRD RECORDING DURING LICENSABLE ACTIVITIES AT SEA

Executive Summary

This report has been prepared by:

Irish Whale and Dolphin Group (IWDG) on behalf of the
IWDG Research Team on contract to the Maritime Area
Regulatory Authority (MARA) as part of MARA's
Improving Compliance Series.

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The purpose of this study is to address any gaps in *observation – recording – responding – reporting* associated with licence conditions relating to mammal observations and bird recording for which MARA has responsibility. It contains a review of existing guidance for both mammals and birds, and an analysis of the data/information received by MARA for a sample of licences for marine mammal observations. The relevant licences were determined under either the Maritime Area Planning Act (2021) as amended, or the Foreshore Act (1933) as amended.

About MARA

Since establishment, 17 July 2023, the Maritime Area Regulatory Authority (MARA) acts as custodian and regulator of Ireland's maritime area.

The establishment of MARA represents one of the most important maritime governance reforms in the history of the Irish State. It marks a significant milestone in Ireland's efforts to establish a robust, transparent and fit-for-purpose system for the governance of Ireland's vast and diverse maritime area.

As an independent regulatory agency, MARA is tasked with implementing the Maritime Area Planning (MAP) Act 2021, as amended – a transformative piece of legislation that places sustainable marine planning and development at the heart of national policy. Its functions are set out in Acts 2021 and 2022, including:

- Assessing Maritime Area Consent (MAC) applications for the maritime area, which are required by developers before development permission can be granted.
- Determining Maritime Usage Licence (MUL) applications for specified activities.
- Compliance and enforcement of MACs, licences and offshore development consents.
- Investigations and prosecutions.
- Administration of the existing Foreshore consent portfolio.
- Fostering & promoting co-operation between regulators of the maritime area.

Improving Compliance

MARA's Compliance and Enforcement activity supports the continued development and operation of a robust compliance monitoring and enforcement regime.

The target outcomes compliance and enforcement policy are:

- a culture of compliance amongst regulated entities.
- effective and efficient compliance monitoring and enforcement activities that are focussed on providing the greatest overall benefit to the public, users of the maritime space and the state, on whose behalf MARA regulates.
- enforcement actions that deliver a proportionate deterrent against noncompliance or unauthorised activities or development.
- compliance monitoring and enforcement activities that represent value in protecting the public interest.

About this Report

This report serves as a record of work commissioned by MARA to inform MARA's work in improving compliance with conditions of authorisations where MARA has compliance assessment and enforcement responsibility. However, the views and recommendations presented in this report are not necessarily those of MARA and should, therefore, not be attributed to MARA.

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Scope

This study is a desk-based review of marine mammal and seabird monitoring, mitigation, and reporting practice for licenced activity where MARA has responsibility. The information/data associated with specific licence conditions is analysed for 10 licences where marine mammal observations were required. The licences were determined either under the Foreshore Act 1933 as amended or the Maritime Area Planning Act 2021 as amended. The study analyses the survey data, field notes, records and reports, held by MARA to identify:

- Whether the data collected is accurately reflected in final reports submitted,
- Whether the actions taken (such as by vessel operators) are in-keeping with observations/recommendations made by observers and associated guidance/conditions of licence, and
- Any barriers and opportunities to enhancing the information collated, its communication to operators and licence holders to ensure appropriate responses by operators.

The analysis is supported by a review of current guidance available nationally and internationally in the area of *observing - recording - responding – reporting* for marine mammals and birds and provides a series of recommendations to improve practice including communications and operational aspects that may pose a barrier while carrying out activities at sea under such licences.

Executive Summary and Table of Recommendations

This desk-based study provides a review of marine mammal and seabird monitoring, mitigation, and reporting practices associated with the conditions of licences for which MARA has responsibility. This includes activities (permitted maritime usages) licensed by MARA under the Maritime Area Planning Act 2021 and activities previously licensed by the Department of Environment, Climate and Communications as foreshore licences under the Foreshore Act 1933 as amended. MARA has a compliance assessment and enforcement role for such licences.

During the operational stage of these licensed activities, robust monitoring, response, and recording systems are required.

This review was commissioned by MARA to;

- Identify national and international guidance for monitoring, responding and recording during licensable activities for marine mammals and birds,
- Provide an analysis of current practice relating to marine mammal observations for a sample of licences (across licence holders, vessel operators and surveyors and associated reporting), and
- Provide recommendations for improving compliance by licence holders.

This report is structured in three parts:

Part 1: Summary of National and International Guidance

This part of the report provides a summary of existing national and international guidance on marine mammal and seabird monitoring and mitigation with a focus on the *observing, recording, responding and reporting* protocols.

The activities covered by guidance available include dredging, drilling, pile driving, geophysical acoustic surveys, and blasting. It summarises guidance available from Ireland, the UK, Germany, and the Netherlands whilst referencing other countries.

This part of the study underpins recommendations made in Part 3 to address areas for improvement identified in Part 2.

The findings identify that while direct comparison with other countries is not easy there are similarities in approaches/protocols that exist. Keeping up to date with new technologies/methodologies for surveys and incorporating this into guidance can be challenging without reviews, and there is evidence of the use of web-based and centralised systems for collation of data. Opportunities are identified to take on existing practice used elsewhere such as the use of trained observers, the need for research into mitigation effectiveness, and the existing gap in guidance available to triggering response/actions based on bird observations during licensed activities at sea.

Part 2: Analysis of Submitted Data and Reports

The report identifies the gaps or learnings in carrying-out the *observing, recording, responding and reporting* requirements of licence conditions for marine mammals. It provides an analysis of a sample of MMO reports and data submitted to MARA by licence holders in Ireland relating to marine mammals. Along with Part 1, this analysis will inform recommendations made in Part 3.

The sampled licences were issued between 2020 and 2025 and were determined under either the Foreshore Act 1933 or under the Maritime Area Planning Act 2021. The licensed activities in the sample included hydrographic and seismic survey operations, laying of cables, geophysical and geotechnical surveys, and drilling/cone penetration test (CPT)/vibrocoring activities.

The criteria assessed were:

- Whether the data collected is accurately reflected in the final reports submitted.
- Whether the actions taken (such as by vessel operators) were in keeping with the observations and recommendations made by Marine Mammal Observer(s)
- What barriers and opportunities exist to enhance the quality of the data collected and improve the communication of that information from observers to licence holders and vessel operators, to ensure more appropriate and timely responses during offshore operations.

Criteria were scored for performance on a five-point scale from Very Poor (1), Poor (2), Moderate (3), Good (4), and Excellent (5).

Findings identify that the majority of scores were Good to Excellent, there was one score of 2 (Poor), that Moderate scores was recorded in three of the ten licence returns sampled and that these cut across the three Criteria. In all cases, opportunities for better performance were identified. These included addressing gaps in communication, format of recording, ensuring a complete record of monitoring and reporting, potential errors due to manual transcribing, the need for a shared understanding of protocols between crew/operators and MMOs, the recording rationales for decision-making.

| Licence number | 1 | 2 | 3 | 4 | 5,6,7 | 8 | 9 | 10 |
|---|----------|----------|----------|----------|--------------|----------|----------|-----------|
| Criteria 1 Data accuracy & report | 5 | 2 | 5 | 5 | 4 | 5 | 5 | 5 |
| Criteria 2 Action v Recommendations | 4 | 5 | 4 | 5 | 5 | 4 | 3 | 5 |
| Criteria 3 Barriers & opportunities for data and communications | 4 | 4 | 3 | 4 | 4 | 4 | 3 | 4 |

Part 3: Recommendations

The final section pulls together findings from Parts 1 and 2 and to provide practical, evidence-based recommendations for addressing the identified learnings in carrying-out the *observing, recording, responding and reporting* requirements of licence conditions for marine mammals and birds.

A total of 29 recommendations are made to address gaps identified and include available guidance and practice. A number of these apply to both mammals and birds, and they include:

1. Practical measures to be developed for license holders and observer/recorders
2. Specified requirements of individual authorisations
3. National level measures to be progressed

Table of Recommendations

| | |
|-----------------------|---|
| Marine mammals | Standardised Data Collection and Central Reporting |
| | Recommendation 1: To develop a single standardised MMO recording template. |
| | Recommendation 2: To develop a Centralised MMO database. |
| | Recommendation 3: To develop a Web-based submission system. |
| | Evidence-Based Mitigation Measures |
| | Recommendation 4: To require operators to perform Noise Propagation Studies prior to noisy activities and tailor mitigation zones. |
| | Recommendation 5: To support research into mitigation efficacy. |
| | Recommendation 6: To develop an adaptive management approach. |
| | Recommendation 7: To require licence holders to engage at least two MMOs for visual watches (rotating to prevent fatigue). |
| | Recommendation 8: To require a Passive Acoustic Monitoring Officer (PAMO) when 24-hour operations are required. |
| | Observer Training and Qualification Standards |
| | Recommendation 9: To develop framework for training MMOs that emphasises verified mitigation experience and field competence, based on JNCC accreditation. |
| | Continuous Improvement and Adaptive Management |
| | Recommendation 10: To develop a mechanism to audit and analyse MMO reports periodically to identify lessons learned. |
| | Recommendation 11: To require the submission of raw observation data with associated quality checks. |
| | Clear and Enforceable Licence Conditions |
| | Recommendation 12: To specify monitoring effort (how many observers, hours), mitigation actions and identify overlap with monitoring for other authorisations. |
| | Inclusive of All Relevant Activities |
| | Recommendation 13: To ensure all relevant geophysical and geotechnical tools are considered so that no high-risk activity “falls through the cracks”. |

Seabirds

Precautionary Spatial/Temporal Measures

Recommendation 14: To incorporate **precautionary exclusions** where appropriate (depending on nature, scale and risks).

Robust Monitoring (Duration and Extent)

Recommendation 15: To ensure a **link between the robust baseline data and ongoing surveys/recording during activities.**

Modern Survey Methods (Boat, Aerial, and Remote Sensing)

Recommendation 16: To require the use of **best-available survey technologies.**

Avoiding Data Gaps – Weather and Seasonal Coverage

Recommendation 17: To require **supplementary surveys** ensuring that key periods are not missed.

Mitigation of Disturbance and Collision Risks

Recommendation 18: To require **species-specific mitigation protocols** avoiding breeding, over-wintering, and migration seasons, and avoiding known aggregations.

Recommendation 19: To ensure vessel operators and /or observers are **trained to avoid rafting seabirds.**

Recommendation 20: To require **bird ‘friendly’ light management plan** during offshore activities to safeguard nocturnal bird migration.

Recommendation 21: To require a **bird incident log** – documenting any stranded or collision events – and report these to the regulator.

Qualified Observers and Protocols for Birds

Recommendation 22: To establish **Guidance for seabird monitoring and response reporting during activities at sea.**

Recommendation 23: To make national guidance available by authorities in a transparent manner and, ideally, in multiple languages.

Recommendation 24: To ensure guidance integrates seabird mitigation principles, drawing from UK (ESAS) or OSPAR frameworks

Recommendation 25: To compile a **comprehensive literature review of the most current scientific research and knowledge on seabird interactions** with on-going activities and mitigations to inform the development of a best-practice.

Data Integration and Sharing

Recommendation 26: To require a **Bird Monitoring and Mitigation Protocol** where a license overlaps or is in proximity to sensitive bird populations (such as SPAs or in high-risk seasons).

Recommendation 27: To ensure collected data informs **adaptive management measures** - where significant disturbance is detected, regulators may impose additional mitigation requirements, such as temporary suspension of activities or the establishment of enhanced buffer zones.

Recommendation 28: To require seabird data to be reported in a consistent, standardised format and subjected to periodic quality assurance checks.

Recommendation 29: To develop a **centralised database** to store seabird monitoring data collected in-situ by observers, with access provided to relevant stakeholders.



MARA

An tÚdarás Rialála Limistéir Mhuirí
Maritime Area Regulatory Authority

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