



1. Requirement overview:

Requirements	Investigating the balance between the benefits of marine activities with the risks in a seasonal context
Requirement detail	The timing of marine works is generally driven by measures to mitigate risks to seasonable birds / migrating fish. This often means that works take place during summer months which could potentially lead to a larger impact on social and economic factors (for example tourism) than might occur during other seasons. This work would outline a process to balance the risks of an activity (environmental, social and economic) against the benefits and potentially propose approaches to mitigate the risk within the licensing framework.
MMO use	<p>Marine Licensing: A shared understanding of the full benefits of marine activities would help licensing to understand better how the impacts of a project are balanced against the benefits.</p> <p>Marine Planning: Improve how marine plans consider marine developments and seasonality.</p>
External interest	Natural England, Environment Agency, Joint Nature Conservation Committee, Centre for Environment, Fisheries and Aquaculture Science
Delivery target	Q2 2018

2. Aims and objectives

The objectives of this requirement are as follows:

- Identify types of marine development and their associated risks and benefits.
- Describe the effect of seasonality on the risks and benefits
- Develop possible methodologies to use the new information in the marine licensing process

3. Existing evidence

MMO	MMO1035 considered the positive and negative social impacts of five marine activities; fishing, aquaculture, tourism, recreation and protecting
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	marine areas for biodiversity. This was done in the context of marine planning and would be a good start for this evidence requirement.
Academic	<p>Dvarskas 2017 described the ecological and economic impacts of tourism on a coastal zone.</p> <p>Bonar et al 2015 looked at the social and ecological issues associated with wave and tidal current energy generation.</p> <p>Jacob et al 2016 looked at the impacts of maritime economic activity and investigated the use of Environmental Impact Assessments (EIAs) as suitable instruments to achieve the No Net Loss objective.</p>
Other	Guidance on Gov.uk states that any construction near a protected area or wildlife might not be able to go ahead if it could adversely affect it. It also refers to mitigation strategies to avoid harm.

4. Current activity

The marine licensing team will consider impacts on protected sites, species and interest features when reviewing new applications. Conditions can then be placed on the marine licence / deemed marine licence in order to minimise and mitigate the identified risks.

5. Associated evidence requirements

Ref	Title
R007	Seasonal bird density and key foraging areas
R071	Acclimatisation of bird species to noise impacts
R082	The potential positive impacts of marine activities
R110	Temporal variability of marine habitats

More information is available [here](#)

6. Potential delivery route

The MMO will look to partner with organisations of relevance to widen the potential impact of any work undertaken in this area. Similarly, where appropriate, the MMO will explore opportunities to influence the research of others to gather evidence that can be applied within a marine management context. As work progresses it is implicit that **knowledge exchange** is required throughout the duration of this requirement and not limited to when delivery is complete.

Commissioning

Delivery window: Q1-Q2, 2018

This approach has been taken for previous MMO projects and has delivered work that has been useful for the teams it was aimed at. Direct commissioning will ensure the work can be delivered in line with the MMO's immediate needs.

See table 1 for timescales.

7. Contact

For more information or to add further research to the existing evidence list please email evidence@marinemanagement.org.uk

Table 1: Delivery timescales 2017 to 2020

Delivery Route	2017				2018				2019				2020			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Commissioning																

Key

	No activity
	Actively undertaking
	Outside of delivery target