

Research and analysis: Improved spatial data on activity distribution and intensity

The MMO, as marine regulators and planners, must consider the location and intensity of many marine activities in decision making within the MMO's remit.

The MMO already has access to diverse activity data such as that presented in [Marine Information System](#) or generated through internal processes including marine licensing, but would benefit from continued improvement of the best available evidence, including up to date, reliable and standardised spatial data on the distribution and intensity of activities that may impact the marine environment individually or in combination.

The diversity of marine activities are described in the [UK Marine Policy Statement](#). Of particular interest is information on the following sectors: tourism and recreation, cable routes and landfalls (particularly disused) and fishing activity from vessels less than 15m in length. The MMO is also interested in new or emerging activities.

Research and analysis: Acclimation of birds to disturbance from marine activities

Requirement R071

Requirement detail

Human use of the marine environment exerts a range of pressures on marine species including disturbance from noise or physical activity. Disturbance results include stress responses, flight, and changes in foraging for example. Such responses can directly or indirectly reduce the fitness of individuals and health of the population. To manage these potential negative impacts, disturbance impacts are considered in decision making.

However, there are increasing stakeholder observations and reports that bird species become, at least partially, acclimated to disturbance from some marine activities. If acclimatisation occurs, this may change the threshold at which disturbance impacts become significant and thus is of relevance to

marine decision making.

The MMO seek evidence on whether, or to what extent, acclimatisation occurs, whether acclimation is species dependant and the conditions under which acclimation occurs such as in interaction with other pressures.

[Research and analysis: Pressures of different fishing gear](#)

Requirement R045

Requirement detail

To enhance understanding of the types and magnitudes of pressures exerted by different types of fishing gear on the environment, and potential management actions that may be appropriate to manage any negative impacts from the fishing gear on protected features.

[Research and analysis: Cement manufacturing: use of fly ash and blast furnace slag](#)

The report models supply and demand for fly ash and granulated blast furnace slag up to 2030. It predicts a small shortage in the UK in 2016 and subsequent years, indicating that supply in the future may reduce further depending of operation of blast furnaces and expected closure of coal-fired power stations. It also notes a global over-production of these products, mainly in China, and recommends extending the current import route from China or other countries to minimise price increases in the UK.

[Research and analysis: Planning for](#)

the risk of widespread flooding

This project has developed methods and guidance to address the need for realistic planning scenarios that account for the risk of widespread flooding across England and Wales, flooding from multiple sources (river, surface water and sea) and the potential impacts.

The outputs of the project have:

- highlighted the scale of the risk of flooding to England and Wales
- changed the representation of flood risks for the public facing National Risk Register (NRR) and the Cabinet Office's National Risk Assessment (NRA)
- helped inform the National Flood Resilience Review (NFRR) and are being taken forward via that route.

They will allow central government, emergency planners and responders to review their planning assumptions, emergency response and mutual aid capabilities, to increase the England and Wales preparedness for widespread flooding.