



## Aim

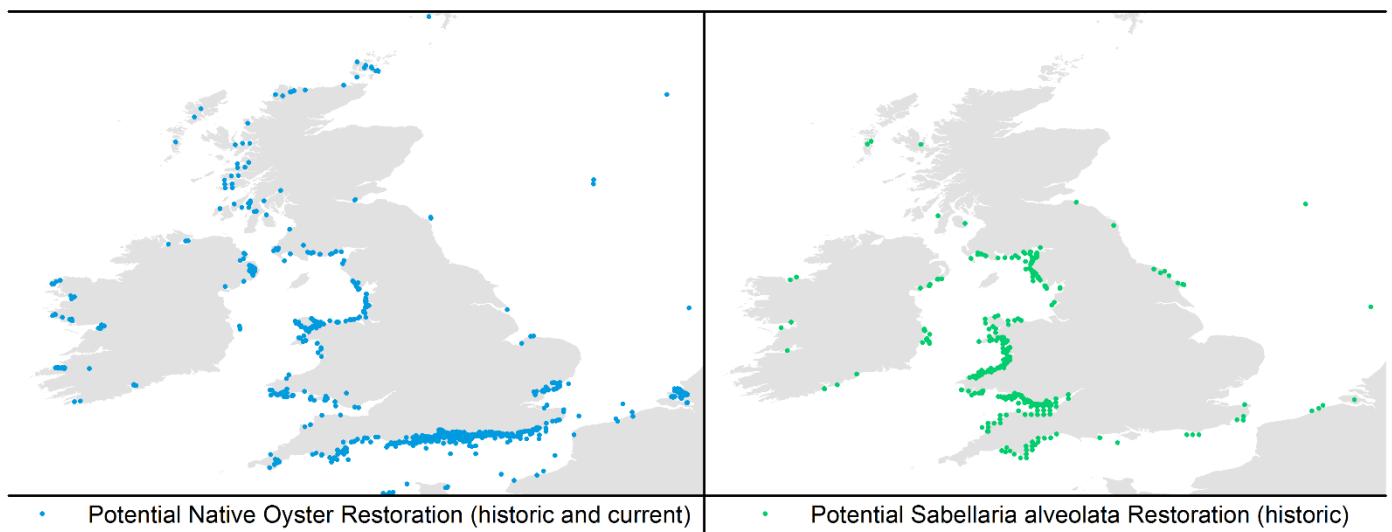
The project aimed to develop a national dataset of sites that are suitable for habitat restoration or creation. The dataset provides information to inform policy development that can help increase the amount of ecologically important habitat, where appropriate and in line with current legislation.

## Introduction and methodology

The Marine Management Organisation (MMO) is currently developing marine plans for English marine waters. During consultations, stakeholders expressed a desire for the creation of a national dataset for identifying sites suitable for coastal and marine habitat creation or restoration. In response, the MMO commissioned ABPmer to help create such a dataset and identify which habitats are most suitable for restoration or creation.

The main purpose of this study was to develop Geographical Information System (GIS) datalayers which could be used / uploaded onto the MMO's Marine Information System (MIS). Six datalayers were consequently created.

**Figure 1. Example Data Layers (“© Marine Management Organisation 2019 and Collins Bartholomew 2018 copyright.”)**



## Results

The six datalayers created for this project have been grouped in relation to the three habitats or habitat groups which formed the focus of the datalayer tasks:

- Mudflats and saltmarshes:
  - Potential habitat creation sites within the current floodplain (applying the techniques known as 'managed realignment' or 'regulated tidal exchange');
  - Potential beneficial use (mud) – stretches which may benefit;
  - Potential beneficial use (mud) - potential material sources (maintenance dredge disposal sites);
- Biogenic reefs:



- Potential honeycomb worm (*Sabellaria alveolata*) restoration - historic and current sites;
- Potential European flat oyster (*Ostrea edulis*) restoration - historic and current sites;
- Seagrass beds:
  - Potential seagrass creation / restoration – historic sites.

To facilitate the informed use of the datalayers created for this project, a brief literature review on the ecology of these habitats was produced, focusing on the environmental conditions required for their restoration or creation. Furthermore, the status of the habitats, and techniques which have been employed to create or restore them, have also been summarised.

To create a list of the ‘best’ habitats for use in (re)creation / restoration, the report presents a high-level matrix which broadly assesses the restoration feasibility of all marine and coastal habitats which are considered to be of principal national importance. This was undertaken in line with recommendations from stakeholders, and available guidance and reviews.

## Conclusions and recommendations

The datalayers can all be used to varying degrees to aid searches for potential restoration or creation sites. They would generally be most useful during the initial stages of a search for potential sites, and further investigations and consultation of local knowledge would always be required to confirm whether or not a site is actually suitable for the restoration or creation of a given habitat.

The development of the high-level habitat matrix was supported by a ‘mini-review’ of topics related to habitat offsetting and biodiversity and environment net gain, as these are subject areas where habitat accounting and issues of habitat equivalency would be encountered.

The review showed that in the marine environment, with the exception of a few habitats, notably saltmarsh, the development of an effective range of measures to improve on the negative environmental impacts of development, or achieve biodiversity net gain is still in its infancy. For many habitats, considerable uncertainties remain about the likely efficacy of possible marine habitat creation / restoration measures. Further trials, research and consistent monitoring are required to improve the evidence base and improve confidence in restoration / creation feasibility.

## MMO comments

The datalayers and report are valuable in the development of an evidence base for marine planning purposes. The outputs can be used to aid stakeholders in finding opportunities for the restoration and creation of coastal habitats. This work is an important step towards improving the marine environment and the aspirations of the UK Government’s new 25 year Environment Plan.

The report notes where additional information can be sourced to add value to datalayers and includes caveats and limitations of the different habitat types to help stakeholders achieve habitat restoration and creation.

## Further information

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