

Transportation/Navigation/Infrastructure Workgroup Report Summary

In order to identify factors which may influence or affect various elements of the Massachusetts Ocean Management Planning initiative (e.g., siting of renewable energy infrastructure), the Transportation/Navigation/Infrastructure workgroup identified and ranked locations within Commonwealth waters that contain existing transportation, navigation, and infrastructure resources. To accomplish this task, the workgroup utilized all available data sources, prepared a ranked siting map, and identified any outstanding data sources needed to complete this analysis.

The workgroup focused on identifying existing transportation, navigation, and infrastructure resources located within the Ocean Planning Area. The following categories generally represent the topical areas that the workgroup considered during this review:

- location of existing shipping lanes/fairways and commercial ferry routes;
- location of existing utility infrastructure including gas pipelines, cables, cable areas, sewer lines; and
- location of navigational aids such environmental monitoring devices, buoys, lighthouses, and security/exclusion zones.

The workgroup's charge was to identify data that generally fell into the following categories: data that already exists in the Massachusetts Ocean Resource Information System (MORIS), data that is external to MORIS, and data that do not exist or exist in a rough or unfinished form ("non-extant data"). The majority of the data the workgroup used for this analysis consisted of 25 feature layers from the NOAA nautical charts, which are available on MORIS. External data sources, such as Ferry Routes and the Integrated Aids to Navigation Information System (IATONIS) were also used in this analysis.

The workgroup then ranked all of the map features or data layers as follows: high suitability, medium suitability, low suitability, or not suitable. It was determined that those with high priority could not be moved and, in many cases, allowing other activities in their location would be hazardous, depending on where those other activities were occurring (i.e., ships traveling over a gas pipeline on the seabed may be acceptable, but positioning a wind turbine on them would not). Those features with medium priority could potentially be moved, but doing so involves moving the activity to a less optimal location that will reduce the effectiveness of that activity compared to the present location. Features that were determined to be not suitable were generally outside of the planning area and not considered during this analysis.

The workgroup also identified external and non-extant data resources that we could not obtain during our initial data gathering which would be necessary to complete this analysis. In order to accurately map commercial vessel traffic spatially, the workgroup needs to obtain existing Automatic Information System (AIS) data, refine and/or convert any data if necessary, and add this data layer to the workgroup's use and suitability maps. For recreational boating, it appears that there is no comprehensive data set which spatially maps vessel traffic patterns and concentrations. Additional spatial data may need to be created to accurately assess vessel travel patterns and volumes.