Marine Minerals Information System (MMIS) and a Sea Turtle Decision Support Tool (ASTER)

Alexa Ramirez[1], Keith Struzzieri[1], Patrick Lines[1], Connie Kot[2], Kevin Criss[3]
[1]Quantum Spatial Inc., [2]Duke University, Marine Geospatial Ecology Lab., [3]Argis Solutions

BOEM's Marine Minerals Program seeks to minimize adverse environmental effects related to project specific dredging operations through deliberate planning efforts and the implementation of relevant and effective mitigation measures. The inability of the MMP team to easily access more than 30 years of BOEM funded data sequestered on CDs and in PDFs inhibits the ability to make fully informed decisions and increases rework. QSI has created an enterprise database system that stores mission critical data related to the geology and leasing of OCS sediment. As the database has matured, MMP can now share data internally between regions as well as with external partners. New mapping and analysis products are currently being developed, leveraging this now available data.

One of these products is the Analyzing Sea Turtle Entrainment Risk (ASTER) decision support tool. Technical insight was gathered from both Sea Turtle and Dredge Expert communities who have a broad knowledge base and understanding of the relationship of dredging entrainment risk relative to sea turtle distribution and behavior, dredge operational parameters, and the implementation of existing mitigation measures. This information is being used to inform the development of a standardized geographically and temporally based decision support tool for use by practitioners in the Atlantic and Gulf region to assess project-specific dredging entrainment risk within a common framework. More informed decisions may minimize impacts to sea turtle species while also decreasing dredging costs. For additional information, check out the following "Story Map:" http://arcg.is/298s5BO.