Critical Data Needs for CMSP

Note: MARCO has already collected many essential CMSP data layers.

This list includes only unmet data needs in priority order with the most critical data needs at the top.

Category	Data Type	Description	Source of Data	Notes	Priority
Biological	Marine mammal migration paths	Existing marine mammal data highlights important concentration areas, yet may not reveal critical migratory pathways.	Unknown	Need to leverage existing data and survey efforts; additional surveys needed.	1
Human Use	Recreational boating and fishing data	Information about where non-commercial fishing (recreational/sport fishing) occurs.	States/Others	Variable existing data; additional data needs to be collected, this is a high priority for effective CMSP.	2
Human Use	Vessel Monitoring System (VMS) fishing data	VMS are required for many commercial fisheries to monitor the position, time at a position, and course and speed of	NOAA/NMFS	Data will need to be processed to provide maximum utility in consideration of confidentiality requirements.	3
Administrative	Military, hazard and restricted areas	Information pertaining to uses of the marine environment by the Department of Defense for training, classified or restricted areas, with unexploded ordinances, etc.	USCG & DOD including ACOE, Navy, etc.	Most spatial data exists, but may need to be attributed with additional information (e.g. permitted uses with zone types).	4
Biological	Important bird habitat (e.g. nesting, breeding, wintering, stopover)	Point and polygon data on sea bird and sea duck use of coastal and marine habitats.	Multiple sources	Need to leverage existing data and efforts; additional data needs to be collected.	5
Biological	Coldwater coral model	A high resolution, predictive model of coral habitat and distribution.	Multiple sources	Currently, point data is available; NCCOS and partners working on a layer for New York that could be expanded to the Bay of Fundy to Cape Hatteras region; estimated cost is $75K.	6
Human Use	Sand, gravel, cobble mining locations; Identified resources	Areas where materials are actively mined from the seafloor; Areas which have been identified as potential "donor" sites for materials.	Multiple agencies including ACOE, States	Currently, we have regional BOEMRE data without metadata and detailed information for MD.	7
Geophysical	Finite Volume Coastal Ocean Model (FVCOM) results	FVCOM is a coastal ocean circulation model developed by UMASSD-WHOI and includes information on current, wave regime, temperature, salinity and density.	Multiple including UMASS Dartmouth, Rutgers, NERACOOS, and MARACOOS	FVCOM will include all of the NROC area and the northern part of MARCO area; additional modeling may be needed for MARCO.	8
Human Use	Northeast Fishery Observer Program data	Observers collect, process and manage data and biological samples (e.g. takes of protected species, estimated discard of fishery resources, catch information, etc.) obtained during commercial fishing trips for scientific and fisheries management purposes.	NOAA Fishery Observer Programs	Data will need to be processed to provide maximum utility in consideration of confidentiality requirements.	9
Human Use	State landings and fishing effort data	State level information about fishery landings and fishing effort.	States	Data quality and availability varies by state.	10
Human Use	Municipal and private discharge	Discharge of effluent from waste water treatment plants receiving waste water from households, commercial establishments, and industries in the coastal drainage basin.	EPA	In addition to point locations, effluent plume models may be useful for informing CMSP.	11
Human Use	Energy facilities	Examples include nuclear power plant locations and discharge pipe locations, potential/existing hydrokinetic sites, etc.	Multiple agencies including FERC, NREL, NRC, and the EPA		12
Human Use	Automatic Identification System (AIS) shipping data	AIS is an automated tracking system used on ships and by Vessel Traffic Services for identifying and locating vessels by electronically exchanging data with other nearby ships and VTS stations and provides information such as unique identification, position, course, and speed.	NOAA	AIS data and tools expected from NOAA CSC, late 2011.	
Biological	Regional scale sea bird and sea duck habitat model	A high resolution, predictive model for sea bird and sea duck habitat and distribution.	PIROP/Manomet	BOEM-funded project underway to enable NCCOS to expand New York scale work to Mid-Atlantic region. Data expected in 2012.	