

Outcome 1: Development of effective processes (see below) and conditions (see below) necessary to prepare and achieve implementation of an effective “integrated, multi-use ocean management” (IMUOM) plan for Massachusetts’ coastal ocean, advanced by the Massachusetts Ocean Partnership Fund (MOPF). The plan: integrates management across sectors and interests; is based on scientific principles of ecosystem-based management; reflects public input and support of major affected groups; is implemented in a timely manner and is adaptive; and supports sustainable marine uses and improved ecosystem stewardship leading to resilient and productive ocean ecosystems in MA state waters. (Processes may include mechanisms for cross-sector collaboration, multi-attribute trade-off analysis, and incorporating new scientific information into plan revisions. Conditions may include active partnerships and commitment of public and private resources including financial and staff resources.)

Output	Description	Schedule	Who?
1.1 Formally establish MOPF and maintain it as a representative, effective, and well-run partnership with the organizational and financial capacity to accomplish its objectives.	Establish organizational operating protocols/policies for governance and management functions, including procurement of contractor services; develop and implement financial sustainability plan, monitor and evaluate progress toward partnership objectives.	Ongoing	MOPF executive staff, Governing Board and UMB Co-PIs with support from organizational consultant as needed.
1.2. Advance integrated ocean management through fostering demonstrable commitment and active partnerships among leaders, decision makers and affected groups.	Establish public-private partnership roles, responsibilities and commitment of resources to support ocean management. Secure MOPF participation in state-mandated planning activities.	Jan08-Jun09	MOPF senior staff, Governing Board and partners with consultant support as needed.
	Convene up to two collaborative problem-solving Working Groups per year around partnership-defined critical issues in a non-regulatory environment.	Mar08-ongoing	MOPF staff and Working Groups with consultant support.
	Link with relevant efforts in GOM region and elsewhere to share information and benefit from lessons learned.	Ongoing	MOPF staff, Science Integration Advisory Group and partners.
1.3 Engage targeted stakeholders in ocean management issues through strategic communications and outreach to enhance the effectiveness and durability of integrated ocean management.	Conduct outreach/communications program to expand/strengthen partnership, engage stakeholders around definition of, need for & key issues involved in IMUOM; communicate progress to decision makers, constituents, media.	Ongoing	MOPF staff, Governing Board/Communications Committee and Sr. Advisor with consultant support.
	Conduct an in-depth stakeholder needs assessment. Identify general and sector-specific informational, financial, institutional and political barriers to and short- and long-term benefits of IMUOM. Results will support preparation of Output 2.1 framework, partnership building, stakeholder involvement process design, etc.	Jan-Apr08	Subcontract managed by MOPF staff.

	Develop and conduct stakeholder involvement programs to support state ocean management planning efforts, in cooperation with state agencies.	TBD	Subcontract managed by MOPF staff.
Outcome 2: Critical science is synthesized and developed for integration with MA ocean management planning and decision making, including an operational framework for IMUOM, integrated data systems and research and monitoring priorities, ecosystem and economic models and scenario analyses, and indicators of ecosystem services.			
Output	Description	Schedule	Who?
2.1 Develop an effective framework for IMUOM in MA including conceptual goals, operational objectives and decision-making processes embraced by partners including management and policy decision-makers, industry, scientific, conservation and other sectors.	Develop preliminary conceptual and operational framework. o Research and report on strengths/weaknesses and lessons learned from existing EBM-related frameworks. o Conduct a workshop to review findings and develop preliminary framework applicable for MA	Jan08-Jun08	Subcontract(s) managed/overseen by MOPF staff and Working Group.
	Vet preliminary framework with partners and stakeholders through a series of forums, workshops, on-line forums, etc.	May-Oct08	As above.
	Develop consensus IMUOM framework report; distribute among partners and release more broadly.	Oct08-Mar09	As above.
	Develop IMUOM technical manual for managers to support framework implementation and development of IMUOM plan.	Jan-May09	As above.
2.2 Improve integration, interoperability, accessibility and information management of ocean data, research and monitoring for more effective use by resource managers, scientists, user groups, public interest groups and others.	Integrated data network. In partnership with relevant agencies and others, and in coordination with existing relevant state / regional efforts, make tangible progress toward developing dynamic integrated statewide data network. o Compile an on-line directory of <i>existing</i> data sources for immediate use by managers, scientists, user groups and others o Develop and test a prototype system with GIS interface o Expand system to incorporate information from other public and private sources. o Secure commitment from appropriate agencies and other entities to maintain data network beyond Dec10.	Jun08	Subcontract(s) managed/overseen by MOPF staff and Working Group.
		Mar10	
		Dec10+	

	Establish a process and schedule for identifying, developing, updating and improving ecological, economic and human use data, mapping, research and monitoring priorities to support IMUOM. Produce a MA ocean research / monitoring plan.	Jan09-Sep09	Working Group and MOPF staff with consultant support.
	Support integration of seafloor mapping information and statewide data network.	Jun08-Dec10	MOPF staff with consultant support.
2.3 Develop and apply ecosystem and economic modeling and scenario analyses to ocean management planning and decision-making.	Capitalizing on existing modeling efforts and in collaboration with state and regional partners, develop, test and operate spatially explicit ecosystem modeling platform(s) to support development of an integrated ocean management plan. Begin with existing information to develop immediately useful decision support tools. Incorporate additional information, for example from economic valuations below, as available and develop more sophisticated decision support tools over time.	Jun08-Dec10	Subcontract(s) managed/overseen by MOPF staff and Working Group.
	Conduct market and non-market valuation exercises for selected relevant issues to better understand and incorporate non-market valuation into ocean management decision making. The projects will be relevant to pressing ocean management challenges in MA. Six valuations will be simpler and smaller-scale for areas with considerable available data, thereby providing immediately useable information. Two others will be more complex studies of longer duration (1.5-2.5 years). Examples of valuation exercises might include: the effect of the presence of offshore infrastructure (wind turbines, LNG terminals, etc.) on people's valuation of scenic views and assessing the monetary benefits of policies designed to improve ecosystem resiliency and enhance ecosystem services. Methodologies may include small-scale property value analysis, single-site recreational demand models, multi-site random utility models, large scale stated preference analyses, etc.	Jun08-Dec10	As above.

	<p>Develop and run ecological / economic scenario analyses for priority areas or scenarios, e.g. for proposed new uses affecting the coastal ocean for which little information exists. Expedite priority scenario analyses in the short-term utilizing best available information. Develop and run more in-depth scenario analyses as additional information and more sophisticated tools are developed. Specifically - develop and apply improved tools to evaluate ecological and economic tradeoffs across sectors; and support research and simulation tools to improve scientific and management understanding of cumulative impacts of development and management actions across sectors.</p>	<p>Jun08- Dec10+</p>	<p>As above.</p>
	<p>Develop and implement adaptive management approaches, consistent with the hierarchy of ecosystem goals and objectives set forth in IMUOM framework, in cooperation with appropriate agencies. Design and implement 2-3 adaptive management programs.</p>	<p>Jun09- Dec10</p>	<p>As above.</p>
<p>2.4 Develop credible indicators, for non-scientific audiences, for improved communications about the ocean's capacity to provide ecosystem services. Develop effective approaches for communication about/application of these indicators.</p>	<p>Develop preliminary indicators in cooperation with relevant agencies and other partners, conduct market analysis among non-scientific audiences, test with media outlets. Objective is increased awareness of MA ocean health/ecosystem services. With lessons learned from preliminary indicators program, develop improved indicators targeting strategic changes in attitude and behavior, consider data development and ongoing monitoring needs, work with partners to secure commitment to fund ongoing monitoring.</p>	<p>Jan09- Mar10</p>	<p>Subcontract(s) managed/overseen by MOPF staff and Working Group.</p>