



**WESTERN  
PACIFIC  
REGIONAL  
FISHERY  
MANAGEMENT  
COUNCIL**

**August 1-4, 2011  
Hawaii Convention Center  
Honolulu, HI**

**CMSP Training Workshop Report**

**Background**

Coastal and marine spatial planning (CMSP) is an approach to address the conflicts among the various existing and future uses of the coastal and marine environment. CMSP is also one of the nine strategic actions in the National Ocean Policy, established by President Obama by executive order on July 19, 2010. The national CMSP framework calls for the creation of a Pacific Islands Regional Planning Body to implement CMSP in Hawaii, Guam, the Commonwealth of the Northern Mariana Islands (CNMI) and American Samoa.

**Workshop Objective and Details**

To prepare US Pacific Island communities for CMSP, the Western Pacific Regional Fishery Management Council sponsored a training workshop, held August 1 to August 4, 2011, for 125 fishing, indigenous and community members from Hawaii, Guam, CNMI, and American Samoa. Assisting in the training workshop was the Hawaiian Islands Humpback Whale National Marine Sanctuary and the State of Hawaii's Division of Aquatic Resources.

The training curriculum was provided by several professionals in planning and resource management and led by Anne Walton of the NOAA National Marine Sanctuaries Program's International Program.

**Balancing Uses in Developing Mock CMSP Plans**

Historically, the ocean has been primarily used for fisheries, transportation and recreation. Today, however, sewage, research, tourism, protected areas, military training, aquaculture, wind and wave energy, and ocean thermal energy conversion are competing for increasingly limited coastal and marine space.

Working in teams of six, participants were walked through the CMSP process as they developed mock plans for selected areas based on a mixture of real and made up information. The locations the groups developed mock plans were as follows: Hagatna, Guam, Tanapaq, CNMI, Kalaeloa, Oahu, Maunalua Bay, Oahu, and West Hawaii, Hawaii Island.

**Outcomes**

Participants took away from the training the complexities in conducting planning activities and acknowledged that the quality of planning depends on the quality of information available. In this regard, having the right people at the decision making table is critical, especially as it relates to generational knowledge of a specific place. For US Pacific Islanders, generational knowledge is not found in textbooks or reports, but is often held within indigenous communities. As CMSP is further used in the US Pacific Islands, it is vital that government planners engage with local and indigenous communities and ocean user groups in developing specific CMSP plans.



**DAY 1 – OVERVIEW OF THE PROCESS**  
**Coastal and Marine Spatial Planning (CMSP)**  
**August 1, 2011 – Honolulu, Hawaii**

TIME	ACTIVITY	HANDOUTS	LEAD
8:30-9:15	<b>OPENING SESSION</b> <ul style="list-style-type: none"> <li>▪ Introductions</li> <li>▪ Course Overview</li> <li>▪ Team Structure</li> <li>▪ Ground Rules</li> <li>▪ Overview of Planning Process</li> </ul>	<u>Poster:</u> <i>Overview of Planning Process</i>	
9:15-10:00	<b>PRESENTATION: TRADITIONAL PACIFIC ISLAND APPROACHES TO RESOURCE MANAGEMENT</b>  <i>Objective: to understand that coastal and marine spatial planning may include different formal and informal approaches to temporal and spatial management, and that native peoples have already been practicing these approaches to meet different management objectives.</i>		Guest Speaker: Dr. Puakea Nogelmeier, Assoc. Professor of Hawaiian Language, UH
<b>BREAK</b>			
10:20-10:40	<b>PRESENTATION 1.1: OVERVIEW OF PLACE-BASED MARINE PLANNING</b> <ul style="list-style-type: none"> <li>▪ Overview of Place-based Marine Planning</li> <li>▪ Benefits of Place-based Marine Planning</li> <li>▪ Lessons Learned From Terrestrial Zoning</li> <li>▪ Place-based Marine Planning Process Model</li> </ul> <i>Objective: to understand how coastal and marine spatial planning is a useful management tool for addressing the challenges and benefits of multiple use areas.</i>		
10:40-10:55	<b>PRESENTATION 1.2: DEFINING THE AREA OF FOCUS FOR YOUR PLANNING PROCESS</b> <ul style="list-style-type: none"> <li>▪ Dimensionality and Defining the Coastal and Marine Environment</li> <li>▪ Defining the Management Area</li> <li>▪ Defining the Study Area</li> </ul> <i>Objective: to understand the distinction between the management area (boundaries of area for which a coastal and marine spatial plan is being developed) and the study area (area of influence).</i>	<u>Handout 1.1:</u> <i>Examples of Management vs Study Areas</i>	
10:55-11:30	<b>EXERCISE 1.1: DEFINING THE AREA OF FOCUS FOR YOUR PLANNING PROCESS</b>  <i>Objective: to understand the importance of considering the 3-dimensionality of the marine environment and areas of influence when defining the study area.</i>	Maps of Study Areas	
11:30-12:00	<b>PRESENTATION 1.3 &amp; DISCUSSION: ASSESSING RELEVANT POLICIES AND ASSOCIATED FACTORS</b> <ul style="list-style-type: none"> <li>▪ Overview of Laws and Institutions</li> <li>▪ Bringing Different Management Authorities to the Table</li> <li>▪ Case Study on Cooperative Management</li> </ul> <i>Objective: to understand that there are a range of management jurisdictions within any marine and coastal environment, each with different mandates and authorities.</i>		Guest Speaker: Dr. Alison Rieser, Distinguished Chair, UH
<b>LUNCH</b>			
1:00-2:00	<b>1.4 DEMONSTRATION: COMMUNITY MAPPING – MAKING THE MOST OF LOCAL KNOWLEDGE</b>  <i>Objective: to look at some of the basic tools used for gathering local information, creating data layers and applying it to maps.</i>		Mimi D'iorio

2:00-2:10	<p><b><u>PRESENTATION 1.5: IDENTIFYING TARGET RESOURCES FOR PROTECTION</u></b></p> <ul style="list-style-type: none"> <li>▪ Ecologically and biologically important areas</li> <li>▪ Conservation targets</li> <li>▪ Cultural and historic resources</li> </ul> <p><i>Objective: to identify those natural and cultural resources and processes that need greatest protection in your area of focus, and will be considered when determining spatial allocation and management of your area.</i></p>		
2:10-2:50	<p><b><u>EXERCISE 1.2: MAPPING &amp; RANKING PRIORITY TARGET RESOURCES FOR PROTECTION</u></b></p> <ul style="list-style-type: none"> <li>▪ Each team will map each of their target resources showing geographic location and distribution of the resources</li> <li>▪ After all target resources are mapped, use worksheet 1.1 and the given criteria to rank the top 5 target resources.</li> </ul> <p><i>Objective: to identify the priority target resources around which you will be building your coastal and marine spatial plan.</i></p>	<p>Poster Size Maps of Each Study Area &amp; Site Characterization</p> <p><u>Worksheet 1.1:</u> Criteria for Ranking Targets</p>	
2:50-3:10	<p><b><u>PRESENTATION 1.5: USING MANAGEMENT OBJECTIVES AS THE DRIVERS FOR DECISION-MAKING</u></b></p> <ul style="list-style-type: none"> <li>▪ Developing multiple use management objectives</li> <li>▪ Addressing conflicts between objectives</li> <li>▪ Learning how to make trade-offs and balancing decision-making</li> </ul> <p><i>Objective: to understand how multiple use areas are also commonly trying to meet multiple management objectives, and how we start to address these challenges.</i></p>		
<b>BREAK</b>			
3:20-4:00	<p><b><u>EXERCISE 1.3: BUILDING OBJECTIVES FOR PLACE-BASED MARINE PLANNING</u></b></p> <p>Selecting from a range of provided management objectives, each team will assemble and weight their management objectives based on the following categories:</p> <ul style="list-style-type: none"> <li>▪ Socioeconomic objectives</li> <li>▪ Biophysical objectives</li> <li>▪ Governance objectives</li> <li>▪ Cultural objectives</li> </ul> <p><i>Objective: to develop clearly articulated multiple use objectives that will define what each team will be trying to achieve in their coastal and marine spatial plan.</i></p>	<p><u>Worksheet 1.2:</u> Developing and Weighting Management Objectives</p>	
4:00-4:45	<p><b><u>EXERCISE 1.4: MAPPING USES OF THE MARINE ENVIRONMENT</u></b></p> <p><i>Objective: to identify specific uses in each management area as a baseline for identifying areas of potential conflicts and compatibilities.</i></p>	<p>Poster Size Maps of Each Study Area</p>	
4:45-5:30	<p><b><u>EXERCISE 1.5: UNDERSTANDING USES OF THE MARINE ENVIRONMENT (ADDING DIMENSION)</u></b></p> <p>List (and diagram) for each human use activity the areas of the coastal and marine environment where each activity has spatial requirements and/or impacts:</p> <ul style="list-style-type: none"> <li>▪ Sea surface</li> <li>▪ Water column</li> <li>▪ Seabed</li> <li>▪ Above the sea surface</li> </ul> <p><i>Objectives: to determine the space requirements of each activity, and the location requirements.</i></p>	<p>flip chart and felt pens</p>	
5:30	<p><b><u>WRAP-UP</u></b></p>		

**DAY 2 – UNDERSTANDING ADJACENT ENVIRONMENTS & FUTURE USES**  
**Coastal and Marine Spatial Planning (CMSP)**  
**August 2, 2011 – Honolulu, Hawaii**

TIME	ACTIVITY	HANDOUTS	LEAD
8:30-8:45	<u>REVIEW OF DAY 1</u>		
8:45-9:00	<p><b><u>PRESENTATION 2.1: WORKING WITH STAKEHOLDERS</u></b></p> <ul style="list-style-type: none"> <li>▪ Understanding Stakeholders and Their Relationship to Your Management Area</li> <li>▪ How to Identify and Select Members of a Planning Team</li> <li>▪ Selecting a Team Leader</li> <li>▪ Roles and Responsibilities of the Team</li> <li>▪ Communication with Your Planning Team</li> <li>▪ Using Facilitators</li> </ul> <p><i>Objective: to understand the purpose and need for engaging stakeholders, the type of investment required in stakeholder engagement, and what a stakeholder-based planning team might look like.</i></p>		
9:00-10:00	<p><b><u>EXERCISE 2.1: STAKEHOLDER IDENTIFICATION</u></b></p> <ul style="list-style-type: none"> <li>▪ Fill Out Worksheet 2.1</li> <li>▪ Characterize Stakeholders by Following Diagram in Handout 2.1</li> </ul> <p><i>Objective: based on current uses, identify all possible stakeholders and their relationship to your management area.</i></p>	<p><u>Worksheet 2.1:</u> Stakeholder Identification</p> <p><u>Handout 2.1:</u> Selecting Stakeholder-based CMSP Team</p>	
<b>BREAK</b>			
10:20-10:40	<p><b><u>PRESENTATION 2.2: UNDERSTANDING IMPACTS FROM OUTSIDE THE MANAGEMENT AREA</u></b></p> <ul style="list-style-type: none"> <li>▪ Vessel Traffic</li> <li>▪ Offshore Energy</li> <li>▪ Coastal Development</li> <li>▪ Watershed Impacts</li> </ul> <p><i>Objective: to understand the influences from outside the management area and how they need to be considered as part of the marine spatial planning process, particularly in regards to spatial allocation..</i></p>		
10:40-11:30	<p><b><u>EXERCISE 2.2: ADDING HUMAN USE ACTIVITIES FROM OUTSIDE THE STUDY AREA TO THE MAP</u></b></p> <p><i>Objective: to understand that human use activities outside of the study area can influence spatial allocation.</i></p>	Maps of Each Study Area	
11:30-11:45	<p><b><u>PRESENTATION 2.3: PREDICTING AND MAPPING FUTURE USES OF MARINE ENVIRONMENT</u></b></p> <p><i>Objective: to understand the importance of identifying future uses and the need to make a determination now about the spatial and temporal requirements, and impacts, of these future uses.</i></p>	<u>Handout 2.2:</u> Gathering Information to Predict Future Uses	
11:45-12:30	<p><b><u>EXERCISE 2.3: IDENTIFYING POTENTIAL FUTURE COASTAL AND MARINE HUMAN USES – part 1</u></b> <i>preparing for interviews</i></p> <ul style="list-style-type: none"> <li>▪ Expansion of Existing Activities</li> <li>▪ Mariculture</li> <li>▪ Tourism Development</li> <li>▪ Alternative Energy</li> <li>▪ Fisheries Extraction</li> <li>▪ Coastal Development</li> <li>▪ Extraction or Development in the Watershed</li> </ul>		

	<ul style="list-style-type: none"> <li>▪ Infrastructure Development</li> <li>▪ Offshore Aquaculture</li> <li>▪ Military Uses</li> <li>▪ Conservation Areas</li> </ul> <p><i>Objective: through interviews with participants from agencies, get a better idea of future uses of the marine environment (they should have knowledge about permit inquiries, etc.); and interview other training participants to better understand past trends in the use of the marine environment in each study area region to identify areas that might need to be considered for expansion of existing use or new human use activities.</i></p>		
<b>LUNCH</b>			
1:30-2:30	<p><b><u>EXERCISE 2.3: IDENTIFYING POTENTIAL FUTURE COASTAL AND MARINE HUMAN USES – part 2</u></b>  <i>conducting interviews and completing worksheet</i></p>	<p><u>Worksheet 2.2:</u>  <i>Estimating Future Demands for Space</i></p>	
2:00-3:30	<p><b><u>PREPARE AND PRESENT: POSTER 2.1 PRE-PLANNING MODEL</u></b></p> <p><i>Objective: peer review of each team's planning model to make sure they are starting with a strong and sound foundation.</i></p>	<p><u>Poster 2.1:</u>  <i>Pre-planning Model</i></p>	
<b>BREAK</b>			
3:50-4:15	<p><b><u>PRESENTATION 2.4: IDENTIFYING AREAS OF CONFLICT AND COMPATIBILITY</u></b></p> <ul style="list-style-type: none"> <li>▪ Identifying Uses That are Compatible with Management Objectives</li> <li>▪ Identifying Uses That are Compatible with One Another</li> </ul> <p><i>Objective: to understand that it is necessary to identify which uses are: 1) compatible with your objectives, and 2) are compatible with one another.</i></p>		
4:15-5:00	<p><b><u>EXERCISE 2.4: IDENTIFYING USES THAT ARE COMPATIBLE WITH YOUR MANAGEMENT OBJECTIVES</u></b></p> <p><i>Objective: to take the first step in prioritizing which spatial uses should take place in your management area, and which should not, based on whether they are compatible with the primary management objectives for your management area.</i></p>	<p><u>Worksheet 2.3:</u>  <i>Identifying Compatible Uses</i></p>	
5:00-6:00	<p><b><u>EXERCISE 2.5: THE COMPATIBILITY MATRIX</u></b></p> <p><i>Objective: to make a list of the current and potential future uses in the planning area and determine how compatible they are with one another.</i></p>	<p><u>Handout 2.3:</u>  <i>The Compatibility Matrix</i></p> <p><u>Poster 2.2:</u>  <i>Compatibility Matrix</i></p>	
6:00	<p><b><u>WRAP-UP</u></b></p>		

**DAY 3 – DEVELOPING THE PLAN**  
**Coastal and Marine Spatial Planning (CMSP)**  
**August 3, 2011 – Honolulu, Hawaii**

TIME	ACTIVITY	HANDOUTS	LEAD
8:30-8:45	<b>REVIEW OF DAY 2</b>		
8:45-10:00	<p><b><u>EXERCISE 3.1: SORTING COMPATIBLE vs INCOMPATIBLE USES (COMPATABILITY BETWEEN USES)</u></b></p> <p><i>Objectives: 1) to identify compatible uses that could share the same space, 2) to identify incompatible uses and their temporal/spatial needs, and 3) to understand any specific spatial/temporal requirements of all current and potential future uses.</i></p>	<p><b>Poster 3.1:</b>  <i>Analysis of Compatibility of Uses (use post-its)</i></p>	
10:00-10:15	<p><b><u>PRESENTATION 3.1: OVERVIEW OF A PLACE-BASED MARINE PLAN</u></b></p> <p><i>Managing conflicts and compatibilities in regards to human uses and meeting management objectives:</i></p> <ul style="list-style-type: none"> <li>▪ Principles of CMS Management Planning</li> <li>▪ Key Aspects of the CMS Management Plan</li> <li>▪ CMS Management Tools and Approaches</li> </ul> <p><i>Objective: to examine different management tools and options for addressing incompatible activities in the management area.</i></p>		
<b>BREAK</b>			
10:30-11:00	<p><b><u>PRESENTATION 3.2: SELECTING MANAGEMENT STRATEGIES</u></b></p> <ul style="list-style-type: none"> <li>▪ Stakeholder Participation</li> <li>▪ Criteria for Selecting Management Measures</li> <li>▪ Specifying How, When and Where</li> </ul> <p><i>Objectives: to develop an understanding about the range of management approaches that are most useful and appropriate in terms of addressing incompatible uses and moving them towards becoming more compatible. This is also an opportunity to become more familiar with each of the management strategies, their use and function.</i></p>	<p><b>Handout 3.1:</b>  <i>Examples of Marine Spatial Measures by Sector</i></p>	
11:00-12:00	<p><b><u>EXERCISE 3.2: IDENTIFYING APPROPRIATE MANAGEMENT PLANNING STRATEGIES FOR THE MANAGEMENT AREA</u></b></p> <p><i>Objective: to make a determination on the range of management approaches that are most useful and appropriate in terms of addressing incompatible uses and moving them towards becoming more compatible activities. This is an opportunity to become familiar with each of the strategies, their use and function.</i></p>	<p><b>Worksheet 3.1:</b>  <i>Identifying Management Strategies</i></p> <p><b>Handout 3.2:</b>  <i>Decision Making Flow Chart</i></p>	
<b>LUNCH</b>			
1:00-2:15	<p><b><u>EXERCISE 3.3: SELECTING MANAGEMENT STRATEGIES FOR MANAGING SPECIFIC USES IN EACH MANAGEMENT AREA</u></b></p> <p><i>Objective: to identify appropriate management responses to each use based on how it will help to meet the management objectives of each management area.</i></p>	<p><b>Poster 3.2:</b>  <i>Selecting Management Strategies (use post-its)</i></p>	
2:15-3:15	<p><b><u>EXERCISE 3.4: EVALUATING MARINE SPATIAL STRATEGIES</u></b></p> <p><i>Objective: to determine the appropriate range of options and approaches for managing the marine spatial environment based on their practicality and how well they address the impacts from each human use activity.</i></p>	<p><b>Worksheet 3.2:</b>  <i>Evaluating Management Strategies</i></p>	

BREAK			
3:40-5:00	<b><u>TEAM PRESENTATIONS AND CRITIQUES ON MSP MANAGEMENT PLAN (POSTER 3.4)</u></b>	Poster 3.2: <i>Selecting Management Strategies (final version from exercise 3.3)</i>	Participants
5:00-	<b><u>WRAP-UP</u></b>		



**DAY 4 – DEVELOPING ZONES AND SETTING BOUNDARIES**  
**Coastal and Marine Spatial Planning (CMSP)**  
**August 4, 2011 – Honolulu, Hawaii**

TIME	ACTIVITY	HANDOUTS	LEAD
8:30-8:45	<u>REVIEW OF DAY 3</u>		
8:45-9:15	<u>PRESENTATION 4.1: DEVELOPING THE SPATIAL ALLOCATION PLAN</u>  <i>Objective: to understand how to use spatial and temporal management tools in order to address incompatibilities between uses of the management area and between uses and the management area's management objectives.</i>	<u>Handout 4.1:</u> Criteria for Ecosystem-based Spatial Allocation  <u>Handout 4.2:</u> Spatial Allocation (Zoning) Classifications	
9:15-10:15	<u>EXERCISE 4.1: DEVELOPING SPATIAL ALLOCATION (ZONING) CATEGORIES AND OBJECTIVES</u>  <i>Objective: to develop spatial allocation (zoning) categories and accompanying objectives (what you want to achieve with each zone) that complement the management objectives.</i>	<u>Poster 4.1:</u> Spatial Allocation (Zone) Categories and Objectives	
BREAK			
10:30-11:00	<u>PRESENTATION 4.2: DEVELOPING ENFORCEABLE BOUNDARIES</u>  <i>Objective: to understand how to describe and set spatial allocation boundaries to improve compliance and enforcement.</i>	<u>Handout 4.3:</u> Common Boundary Components  <u>Handout 4.4:</u> Boundary Writing Checklist	
11:00-12:00	<u>GIS DEMONSTRATION: TOOLS FOR UNDERSTANDING TRADE-OFFS ON PLACEMENT AND SIZE OF ZONES</u>		Charles Stenback
BREAK			
1:00-2:00	<u>EXERCISE 4.2: LOCATING ZONES</u>  <i>Objective: to identify the most appropriate size and location for each zone based on the objectives of each zone, and requirements of allowed activities.</i>	Management Area Maps (mylar overlays)	
2:00-2:20	<u>PRESENTATION 4.3: DEVELOPING REGULATORY LANGUAGE</u>  <i>Objective: to understand the importance of developing clear and concise regulatory language.</i>		
2:20-3:15	<u>EXERCISE 4.3: DESCRIBING YOUR ZONING BOUNDARIES AND REGULATIONS</u>  <i>Objective: to learn how to write clear, concise and enforceable boundary and regulatory descriptions.</i>	<u>Poster 4.2:</u> Describing Zones, Boundaries and Regulations	
3:15-3:40	<u>PREP FOR TEAM PRESENTATIONS</u>	<u>Poster 4.3:</u> Proposed Zone Packages	
BREAK			

4:00-5:00	<b><u>TEAM PRESENTATIONS: PROPOSED ZONE PACKAGES</u></b>	<b>Poster 4.3: Proposed Zone Packages</b>	
5:00-5:15	<b><u>WRAP-UP</u></b>		
5:15	<b><u>COURSE EVALUATION</u></b>		