

Ocean SAMP Stakeholder Meeting #14
Notes, April 6, 2010, 6:00 – 8:15 p.m.
Hazard Rooms A and B, URI Bay Campus

Purpose of the Meeting:

1. Present a summary of the Ocean SAMP Renewable Energy draft chapter for discussion.
2. Present a summary of the Ocean SAMP Ecology draft chapter for discussion.
3. Update stakeholders on Ocean SAMP research, outreach and policy activities.

Welcome – Ken Payne

Payne opened the meeting by reminding the group of approximately 30 attendees that climate change, the focus of one of the meeting presentations, is “one of the great driving issues” of the Ocean SAMP and a key reason that the decision to do the SAMP was made in the first place.

New Ocean SAMP Developments – Grover Fugate, CRMC

Fugate indicated that Massachusetts and Rhode Island are working to determine which state has the right to nominate, through a Request For Interest (RFI) process, to the U.S. Department of the Interior a particular portion of offshore property, or lease blocks, for potential renewable energy projects. Fugate said that the SAMP process remains on time, with the formal adoption process still on target for this August 2010. CRMC has already preliminarily approved several initial chapters, such as the marine recreational chapter and the marine transportation, but final approval will take place once the complete SAMP document is submitted as a whole in August. He said that upon CRMC completing the adoption process, the SAMP will also go through a separate approval with the Secretary of State Office, and a separate federal consistency review. In the federal process, the state will ask for an extension of the state ocean waters boundary from three miles out from shore to 30 miles out from shore. This would be done so the state will have the legal ability to participate in the federal decision making process involving the review of potential offshore renewable energy projects. No project, he said, can proceed until all these adoption and review steps are addressed.

Update on Ocean SAMP Chapters – Jennifer McCann, URI

McCann reported that two ecological scientists from Europe, Frank Thomsen and Andrew Gill, are providing technical expertise to the Ocean SAMP – specifically, what standards and protocols may be helpful, per the European experience with windfarms, for developing an ecosystem based evaluation and monitoring plan for potential Rhode

Island projects. McCann said the experts worked with the Ocean SAMP team on looking at what are the effects of offshore renewable energy on different aspects of ecology, and on understanding further research and potential mitigation opportunities. She said the Ocean in Motion lecture series about the Ocean SAMP has been well attended and that the community has been very active in providing valuable input to the SAMP, both through stakeholder and public events, and through written chapter comments. She also said that each chapter goes through basically a 100-day review process, and that the Ocean SAMP document will be available as a whole for a 30-day review period at the end of the document development. Both McCann and Payne encouraged the attendees to continue reading the draft chapters.

Global Climate Change Draft Chapter – Jim Tobey, URI

Tobey indicated in his presentation that his methodology for developing the chapter was to work with experts, participate in appropriate workshops, and complete a literature review. Pam Rubinoff, of the URI Coastal Resources Center/Rhode Island Sea Grant was also a chapter author. He said the findings for the draft chapter are that the effects of global climate change are being witnessed, should intensify, and will effect ecology, so it should be considered when considering future uses. He provided an overview of climate change trends and projections concerning air and ocean temperatures, sea level rise, storminess, precipitation, and ocean acidification. Tobey said that in terms of the greenhouse effect, carbon dioxide is on the increase and is higher than it's been in 650,000 years. In general, all posed scenarios created by science have already been surpassed by current trends, as evidenced by indicators such as increases in air and ocean temperatures and sea level rise. To start meeting some of the challenges of climate change, Tobey said the SAMP process can provide for developing policies and standards, periodically reviewing and enhancing those standards, promoting data collection, assessing infrastructure vulnerability, creating design standards, and supporting public awareness of global climate change.

After the presentation, group discussion focused on the inherent uncertainties of global climate change – how can we better predict what will happen here in Rhode Island? What research can we do now to figure out what these changes mean for ocean activities and resources? How threatened will our fish stocks be – and which kinds of fish will be most affected? Fugate indicated that “the problem is we really don't understand the system that well. There will be precipitous changes and they'll be rapid. But nobody really knows. We're only able to deal with the observations we're seeing now,” and Payne said that while the issue is difficult, the SAMP is making an important start: “No other state is addressing it the way you're doing here. This chapter presents a huge burden, and these have been very valid questions.” He said the goal of the chapter is not to answer these questions, but to provide a frame of reference for starting the climate change dialogue.

Other Future Uses – Barry Costa-Pierce, URI

Costa-Pierce presented an overview of both “likely and fanciful” potential future uses for the Ocean SAMP area, and gave examples of activities happening in other places around the nation and the world. He said that the role of public process is important for the determination of Rhode Island’s future uses of its ocean waters. Costa-Pierce reviewed these uses:

1. Mining: Aggregate is getting scarce, especially where there is sea level rise. We are going to need to armor the coast more than ever before, and a lot of the aggregate we now have is tied up in state parks and is used for buildout. In the SAMP area, we have nothing on aggregate numbers. Recent research will get us mining aggregate numbers for the future. Downsides: habitat destruction, benthos disruption, and toxics.
2. Offshore Liquid Natural Gas (LNG): Avoids need to build landbased receiving facilities. Two are being considered for Massachusetts – there are nine currently operating in the U.S. The LNG is regasified for distribution. Downside: Lots of issues about safety, etc. But the demand is increasing, there is potentially a lower cost, and maybe less destruction to the environment.
3. Short sea shipping: Port growth. There is currently no short sea shipping in the U.S. There is a lot in Europe. Smaller barges would have roll-on roll-off trailers. It calls for less trucking. It’s more cost effective. The I-95 projections for transportation are disheartening, so this could be a potential answer and have positive impacts for Quonset Davisville and ProvPort. These ports could serve short sea shipping as a hub. There could be grant money for infrastructure improvements. This activity could mean \$125 million in jobs.
4. Conservation and fisheries enhancement: We could have a marine reserve, like California. We could close off a portion of ocean water for this. In some countries, the wind areas are closed. Or we could go the other extreme, open access. We could have special places for biodiversity, essential fish habitats, artificial reefs – or maybe a combination of these things? This is about choices: marine reserves, underwater parks, recreational areas -- these are examples. Combining aspects could be an opportunity to have your cake and eat it too. There are examples of fisheries working actively with conservationists to implement scenarios that benefit both – that’s the most important point here. Ten years ago, we didn’t have these options to look at. Great Debate. Real investment money. Nature conservancies are really getting involved.
5. Concrete reefs: Controversial. Are they aggregating or there actually new production? Aggregation vs. production. May want to consider this if towers go in other places. Looking at other examples. Predator prey relationships. We’re finding out that some of these platforms are equivalent to a lot of natural habitat – valuable from essential fish habitat perspectives. Not all artificial reefs are created equal – they differ for different species, for life stages for fish. We didn’t have all this information ten years ago. For

example, with an upwelling, you get nutrient rich water, accelerated production of fishfood production – a lot of this is done in Japan, a lot of this is getting published – which is exciting for ecosystem engineers. Recreational fishermen in Louisiana like the reefs. Structures of all kind would likely be fished.

6. Harvesting of bioactive compounds from structures: enormous amount of fouling will take place – colonization – oil and gas platforms in North America – climax communities like mussels in the tons. Four feet in depth in places. Drag on structures is huge, and it can cost \$100,000 a month to get rid of the mussels. Most of the stuff is pretty clean, except for those at drilling sites. If you don't clean them off, hypoxic areas can result. All kinds of organisms producing all kinds of compounds—some of them may help with illnesses or marine biotechnology.

7. Aquaculture: We could do this like it is in Europe. With a jacket structure, you can have a swivel system with submerged parts. Or like in the German Bight, with mussel longlines off the bases of turbines – here you get a collar system. Or you could do submerged fish cages. Or a single point mooring swivel system with fish cages, being considered for Nova Scotia/Canada. Seaweed? Shellfish? For oil, for food? Then there's finfish aquaculture. Aquapods. Huge. Productive. Is society ready? Then, merging of all these things – ocean stock enhancement.

8. Ecotourism: Wind tourism – Palm Beach, 12,000 visits each year. Visitors centers. South Carolina. If they did it, about 5,000 tourists each year. Half million econ dollars a year.

9. Underwater cemetery: This may seem out there, but there is one on Neptune Reef. It is a use.

10. Research and Education Center: Ireland. R & D. R & E. Could increase capacity at academic, community, private sectors, public sector. Look at oil refineries, algae processing. Big bags for growing algae for oil extraction.

After the presentation, the group discussed some of the uses further, but also said there could be problems with ensuring new uses do not deteriorate existing uses. Payne said that the point of having a chapter about future uses is to address the very idea that we don't know yet what could take place in our ocean waters, and people will want to look at many options first. "It's what could happen, not what's going to happen," he said. It was also pointed out that it could be helpful for the Ocean SAMP process to bring about dialogue about stormwater management infrastructure.

Next Meeting: May 4, 2010 – Fisheries and the Effects section of Renewable Energy