

Friends of Penobscot Bay

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NE Regional Planning Body
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June 6, 2016

Comments on the six priorities of the Draft Northeast Ocean Plan

Dear Betsy

Thanks for the opportunity to comment on the Draft North East Ocean Plan. We strongly support implementation of the plan and urge followup workshops on an annual basis to evaluate local federal officials' adherence to the plan. We see the plan providing two things:

- * Creation and maintenance of a one-stop North East Ocean data portal to provide the New England coasts' planners, developers, permit and license reviewers and other stakeholders with easy access to well organized, regularly updating, peer reviewed biogeophysical data about every part of their jurisdictional waters – from shore to offshore.
- * Outlining the obligations of relevant federal agencies staff to both (a) supply and update high quality information to the Portal, and (b) access the Portal as part of their various licensing and oversight roles, to fill data needs.

We believe that Penobscot Bay area municipalities will benefit greatly from easy access to this well-sorted information portal. Development pressures are increasing along the western bay's Route 1 corridor, and on the ferry-connected Fox Islands & Islesboro. If Maine's top lobster producing bay is to continue to provide those and other renewable seafood resources, then those species' habitat and water quality needs must be preserved despite growth along the west Penobscot Bay coast. When the bay's municipalities have access to the data they need to make informed decisions, they **will** conserve these natural marine resources in their towns' waters,

We have specific comments on the 6 priorities of the Plan.

Priority 1. Understanding of marine life and habitats The New England Fishery Management Council has developed a plan that would go great strides toward increased understanding of both offshore coral habitats and the shallow water habitats needed by the Gulf's inshore juvenile cod and the young of many other fishes, which living at least part of their lives in the shallows.

This by nearing final designation of both inshore and offshore Habitat Areas of Particular Concern, or HAPC. The offshore sites designate certgin deep sea canyons bearing deepwater corals as HAPCs.

At the same time the entire northern New England coast, from low tide to the 20 meter depth contour will become a federal Juvenile Cod Habitat Area of Particular Concern.

The designation recognizes the particular importance of rocky shallow water habitats and good water quality in the survival of coastal juvenile cod from Age Zero larvae to maturity.

In order to conserve these habitats, they need to be mapped and ecologically inventoried. That way, local, state and federal environmental officials will have both knowledge of the existing habitat and water quality and from that, determine the probable impacts to consider when applications for coastal development arise. Protect the water quality and habitat quality needed not only by cod but also their co-habitants.

Priority 2. Understanding of tribal cultural resources.

A. Early Native American coastal sites at risk of immersion. Even at this time, there are numerous significant Native American paleoarchaeology sites along our Gulf of Maine coast and the so-called Red Paint People their predecessors who settled primarily along tidal shores, rivers and streams. Many sites have already been drowned or are now facing site immersion as water levels rise.

It is especially important to survey all ravines along the Maine shore that empty into the Gulf of Maine or a bay or tidal river. These “waste” lands are sometimes that last bit of land Native Americans were allowed to live in from the 18th to the 20th century. Coastal developers need to ascertain whether a ravine proposed for filling contains artifacts of such past long term encampments before filling it in. To do so they need easy access via the Portal to information

B. Reasserting Penobscot commercial fishing rights in Penobscot Bay. If significant portions of the Penobscot Nation's river fishing grounds have been contaminated or otherwise made unfishable, then the tribe could be granted compensatory finfishing rights in Penobscot Bay. This should be explored.

Priority 3 Understanding human activities, coastal communities, socioeconomics, and interactions between uses

A. Ocean windpower. With the recent federal decision to fund the UMaine led project to build and operate two large floating wind turbines off Monhegan, we now are going to begin using the western Gulf of Maine airshed with deepwater floating windparks. We will be involved in development of Maine's offshore in have an opportunity to learn about the hydrodynamic impacts of the windshadow and upwelling created by floating wind turbines as they extract energy from the wind. Renewable, wind power may be, but it is still an extractive industry with impacts on the windshadow area that is continuously stripped of wind energy and needs to be managed as one. See page 13 of Umaine oceanographer Peter Jumar's [“Anticipated environmental effects of offshore wind development in the Gulf of Maine.”](#)

B. Better Cumulative Impact Analyses. Decisionmakers around the bay have for the most part resisted making bay wide cumulative impact analyses of development applications and discharge licenses coming before them, even when the changes do have baywide implications. The portal needs to be structured to allow reviewers to easily examine the cumulative harborwide, reach-wide and baywide implications of adding new development and discharges to existing ones.

The Ocean Plan needs to specifically require federal agencies to consult the portal and carry out cumulative impact reviews at one or more of those scales, as needed.

Priority 4. Characterize the vulnerability of marine resources to specific stressors

This will be critical to the success of the inshore juvenile Cod HAPC mentioned above. The chronic impacts of legacy waste sites that leak toxins and nutrients into the water column and sediments can include failing coastal fish restoration efforts. What and where are the chemical and petroleum wastes left behind along our coasts in the 19th and 20th centuries? How much acid waste from 19th and 20th century chemical & fertilizer factories in coastal towns? Many sites have been remediated **but most have not**. Ocean planners need to enlist academia and NGOs to locate and deal with these legacies of more naive times.

Priority 5 Characterize changing environmental conditions, particularly resulting from climate change, and characterize resulting impacts to existing resources and use. Inshore trawl surveys and beach seining and video surveys are vital to actually discover and map what those changing conditions actually are and what living marine resources either benefit from the changes or are being suppressed by them.

Priority 6 Advance ecosystem-based management (EBM) by building on the previous priorities and also including cumulative impacts and ecosystem services.

The Portal needs to include both more details about a wildlife sector that has received very little oversight and conservation, and make their conservation comprehensible to decisionmakers.

These are the natural marine microbes that are the living fabric upon which our fish, shellfish, algae and seagrasses depend. For example a Woods Hole report noted that *“results show that newly-hatched cod larvae require soft-bodied microzooplankton in the size range of 40 to 80 μm at a nominal concentration of about 2 cells ml⁻¹ in order to maximize survival through yolk-sac absorption (~10-15 days post-hatch)”*. Other reports show healthy natural biofilms on the surfaces of seagrasses, algae, submerged ledges and boulders are necessary for mussels and other species to land upon when settling out of their floating plankton stages.

These one celled species are sensitive to herbicides, pesticides, changes in pH and water temperature and more. The cumulative impact of a failure among marine microbial species would ricochet throughout the greater marine ecosystem. Yet conservation of the marine microbiome has been largely ignored, due to lack of organized data about it. Amoeba conservation may sound ridiculous, but with protozoa essential even obligate prey for juvenile cod and other marine vertebrates and invertebrates we would be foolish not to oversee and manage their abundance and distribution. The Plan need to makes this possible.

Thank you for this opportunity to present our concerns and ideas. We look forward to implementation of the Northeast Ocean Plan.

Ron Huber

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