

## HABITAT COMMITTEE REPORT

### Wave Energy

The Habitat Committee (HC) heard a presentation on alternative energy development (e.g. wave and tidal energy) from Cathy Tortorici of National Marine Fisheries Service (NMFS), with input from Keith Kirkendall, who works on Federal Energy Regulatory Commission (FERC) issues for NMFS. Keith reported that the U.S. Department of Energy predicts that wave and tidal energy will become a \$117 billion per year industry, potentially dwarfing the oil industry in the future. Of the entire U.S. coastline, the Pacific Northwest has the greatest potential for wave energy production. All three Pacific states have directives from their respective state governments to produce 20%-30% of their energy from alternative sources by 2020-2025. The energy industry (including Chevron and other large players) is investing heavily in wave and tidal technology. Currently, there are 24 proposed alternative energy projects proposed on the Pacific coast. For example, Golden Gate Energy has a preliminary permit proposal to develop 500 kilowatts to 2 megawatts (MW) of tidal energy in San Francisco Bay, with intention to expand to 1,000 MW in order to meet the City of San Francisco's total energy needs.

Currently, FERC is proposing a new pilot project licensing process that could be completed in as few as six months, without the need for the full licensing process. These would be short-term (five-year) licenses that may or may not become permanent. FERC is holding a workshop on October 2 to present FERC's proposed licensing process for hydrokinetic energy projects (5 MW or less). Comments are due 30 days after the meeting.

The HC thinks it is important that the Council comment on this process. This issue relates to several Council concerns, including impacts to fisheries, habitat, and marine protected areas. Because of safety and navigation concerns, these wave and tidal energy project areas **will likely be closed to all activities, including fishing.**

From a habitat perspective, the issues we'd like to address related to the FERC proposal include:

- Area closures and habitat impacts of displaced fishing effort.
- Habitat modification (creation of artificial structure, electromagnetic and acoustic impacts, effects on currents and sedimentation rates, changes in species distribution and composition, migration routes, effects on spawning habitat, and predator/prey relationships).
- Size of pilot projects (FERC has proposed that pilot projects be up to five megawatts, which could include large arrays of structures, depending on the generation capacity of each turbine).
- Term of licenses.
- Application of best available technology in order to minimize impacts.
- Baseline biological and habitat data.
- Monitoring of the project for biological and habitat impacts while in operation.
- Decommissioning and habitat restoration.
- Designation of sensitive habitats.

- Cumulative impacts of individual and aggregate projects (the process for addressing these is undefined).
- The need for adaptive management, given the lack of knowledge about impacts.

Several members of the HC plan on attending the meeting pursuant to their own job responsibilities, but the HC seeks the Council's endorsement to attend as members of the HC in order to learn more about this process and to prepare Council comments based on the concerns outlined above. Since the comment period deadline is November 2, the HC requests direction from the Council to prepare a comment letter after the FERC meeting to be approved via email using the fast-track process. Other Council advisory body members, such as the Groundfish Advisory Subpanel (GAP) and Salmon Advisory Subpanel, may be interested in attending the workshop in order to address fishery concerns.

Other alternative energy proposals are moving forward outside this pilot project process. One project off Reedsport, Oregon has a preliminary permit and is applying for a 30-50 year permit for a wave energy project. Many of the above concerns apply to this project, but comments must be made under a separate process. Comments are due on October 28 on the Preliminary Application Document ([http://elibrary.ferc.gov/idmws/file\\_list.asp?accession\\_num=20070702-5057](http://elibrary.ferc.gov/idmws/file_list.asp?accession_num=20070702-5057)).

The HC is not suggesting the Council comment on every proposed wave or tidal energy project, but since the Reedsport project is one of the earliest in the application queue, it sets a precedent for future proposals. For this reason, the HC requests direction to draft a second, fast-track letter specific to the Reedsport project.

Lastly, a scientific workshop on the ecological effects of wave energy development in the Pacific Northwest is scheduled for October 11-12 in Newport, Oregon (Hatfield Marine Science Center). The workshop will share current understanding and initiate a broad discussion of the potential ecological effects of ocean energy. The morning session of October 11 is open to the public. For more information, the website for the workshop is <http://hmsc.oregonstate.edu/waveenergy/index.html>.

### **Corals in the Olympic Coast National Marine Sanctuary**

Oceana provided public comment to the HC on corals and sponges off the Washington Coast. Oceana has submitted a public comment requesting the Council immediately initiate their interim Essential Fish Habitat (EFH) review process to protect newly discovered coral and sponge habitat off the Washington Coast. Also, Oceana asked NMFS to take emergency regulatory action to protect glass sponges in Grays Canyon off Grays Harbor.

The HC supports efforts to protect sensitive biogenic habitats such as corals and sponges. These habitats are important to many Council-managed fish, but the exact nature and extent of the relationships are not fully understood. Coral and sponge species are extremely slow growing and are very sensitive to impacts from any bottom contact gear.

While we are sympathetic to Oceana's concerns about these corals and sponges, the HC thinks that a more comprehensive planning effort is appropriate. The Council recently adopted an interim EFH review process that provides an opportunity to address some of these issues.\* A functional review process would help avoid operating in a reactionary mode, when new information becomes available. In addition, the HC reminds the Council that the newly reauthorized Magnuson-Stevens Act allows discretionary authority to designate zones for the protection of deep sea corals within fishery management plans, independent of the EFH process.

To address immediate concerns, perhaps the Council could facilitate a meeting between the GAP, tribes, Sanctuary, and the science community to discuss and share information about the significance and locations of corals and sponges, and to seek voluntary ways to minimize fishing impacts while longer term planning is done.

### **Other Topics**

The HC received a recently published paper by Drs. Mark Hixon and Brian Tissot on a comparison of trawled and untrawled seafloor habitat in the vicinity of Coquille Bank, Oregon. Dr. Hixon asked the HC if we would be interested in reviewing and discussing the paper.

The HC heard a presentation by meteorologist and hydrologist Kyle Dittmer of the Columbia River Inter-Tribal Fish Commission on the effects of climate change in the Columbia Basin. He presented several graphs of 100-year records showing trends in air and water temperature, precipitation, and timing of freshets, runoff, and stream flows. There were consistent patterns across watersheds throughout the northwest that are consistent with a warming trend. Lower elevation watersheds appear to be most at risk for major shifts in runoff timing patterns. In addition to regional changes, Mr. Dittmer talked about global climate change issues and impacts. Mr. Dittmer is available to speak to the Council on this subject if there is sufficient interest.

The HC also heard a presentation by HC member Dr. Charlie Petrosky on fish spills in the Columbia River. Dr. Petrosky described the current management of the spill program, benefits and risks of fish spill, and monitoring of total dissolved gas and gas bubble trauma. Data show that fish spill provides a significant benefit to juvenile survival compared to other passage routes.

The HC will not be meeting in conjunction with the November Council meeting, but is planning to meet in mid-October in the Portland area.

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\* The first interim EFH process deadline was this summer, so if the Council wanted to use this approach, some sort of waiver or exception to the schedule may be needed.