Agenda Item E.1
Situation Summary
March 2013

CURRENT HABITAT ISSUES

The Habitat Committee (HC) will meet on Wednesday, March 6, 2013, to discuss the Fishery Ecosystem Plan, the NOAA Habitat Blueprint focus area, and other topics.

Council Action:

1. **Consider comments and recommendations developed by the HC at its March 2013 meeting.**

Reference Materials:

1. Agenda Item E.1.b, Supplemental HC Report.

Agenda Order:

a.	Agenda Item Overview	Jennifer Gilden
b.	Report of the Habitat Committee	Joel Kawahara
c.	Reports and Comments of Advisory Bodies and Management Entities	
d.	Public Comment	
e.	**Council Action:** Consider Habitat Committee Recommendations	

PFMC
02/13/13

Agenda Item E.1.b.
Supplemental Habitat Committee Report
March 2013

HABITAT COMMITTEE REPORT ON CURRENT HABITAT ISSUES

Habitat Blueprint Focus Area

The Habitat Committee (HC) heard a report from its NMFS representative on the NOAA Habitat Blueprint. California's Russian River watershed has been selected as the first NOAA Habitat Blueprint Focus Area.

The purpose of the Habitat Blueprint is to provide a framework for NOAA to act strategically to improve habitat conditions for fisheries and coastal and marine life, and support economic, cultural, and environmental benefits. The Blueprint process takes a three-pronged approach: establishing Habitat Focus Areas, implementing a strategic approach to habitat science to inform effective decision-making (the Habitat Assessment Stock Prioritization Process), and strengthening policy and legislation to achieve meaningful habitat conservation.

The Southwest Region was chosen to go through the process of selecting a Habitat Focus Area first, with the outcome and lessons learned serving as a pilot for the other regions. The selection process has two key requirements: the Focus Area must show measurable progress within five years, and must demonstrate clear, cross-NOAA collaboration. Based on these principles, the Russian River watershed was selected as the first NOAA Habitat Focus Area. Other areas considered included San Francisco Bay and the Southern California Bight, but NOAA decided that focusing on a more discrete geographic region like the Russian River would be more manageable, and progress would be easier to demonstrate. Also, the Russian River area is already the focus of collaboration and restoration projects involving multiple entities, which helps to demonstrate the Focus Area model.

NMFS' involvement in the Russian River includes issuing a Biological Opinion in 2008, a Recovery Plan for Central California Coast coho, and multiple habitat restoration projects, including opening coho salmon breeding grounds and converting gravel pits into salmonid habitat. NOAA's National Weather Service and Office of Oceanic and Atmospheric Research are also conducting forecasting and modeling for flood and water management issues in the Russian River watershed. In addition, should the National Ocean Service expand their Sanctuary boundary to include the Russian River estuary, they would likely become more involved in fish and water issues there.

The next step will be to identify key objectives and actions to build upon over the next five years. The Northwest region will undergo the same process in the future, although other regions (e.g., Pacific Islands) may go through the process next. For more information, please see http://www.habitat.noaa.gov/habitatblueprint/russianriver.html.

Ocean Observation Initiative

Dr. Ed Dever of the College of Earth, Ocean and Atmospheric Sciences at Oregon State University gave the HC a report on the status of the Ocean Observation Initiative, which is a

long-term, National Science Foundation-funded program to provide 25-30 years of sustained ocean measurements to study climate variability, ocean circulation and ecosystem dynamics, air-sea exchange, seafloor processes, and plate-scale geodynamics. The Council will hear a similar presentation in April. There is a Newport Ocean Observing Conference April 30-May 1, 2013 at the Hallmark Resort and Hatfield Marine Science Center. See www.ybooi.org for more information.

Offshore Energy Development
The HC received an overview of hydrokinetic energy technologies from Keith Kirkendall, NFMS, and discussed the current status of wave and tidal energy and offshore wind off the West Coast. Since wind energy technology is considerably more mature than wave and tidal energy technology, some companies are shifting their focus to offshore wind turbines. However, tests of wave and tidal energy technology continue to move forward, with a marine energy testing facility now operational off Newport, Oregon, and a tidal turbine soon to be deployed in Puget Sound.

More details about ocean energy development are included as an appendix to this report.

NWPPC Program Amendments
The Northwest Power Planning and Conservation Council will be adopting amendments to their Columbia Basin Fish and Wildlife Program in 2013. The HC will keep tabs on the commenting schedule so that the Council may develop essential fish habitat comments in a timely manner if it wishes to do so.

Klamath
The HC is aware that a large Klamath Fall Chinook ocean stock size (although not of the magnitude seen in 2012) is predicted to return to the Klamath River this year. Average to below-average hydrologic conditions in Klamath Basin this year suggest that water supplies will be limited. Given these potentially adverse conditions, the HC intends to provide a draft letter for the Council to consider at the April meeting, requesting that the Department of the Interior provide supplemental flows, if necessary, to ensure safe adult fish passage through the lower Klamath River. The Council sent a similar letter last year. The DOI did provide supplemental flows for salmon, and no fish kill was observed. Also, it should be noted that the Department of Interior will soon have a new Secretary, so it would be timely to bring this matter to the new Secretary's attention.

ATTACHMENT

Outer Continental Shelf (OCS)
BOEM (Bureau of Ocean Energy Management) is responsible for leases for energy development on the Outer Continental Shelf. In **Washington**, the Olympic National Marine Sanctuary prevents any development on the OCS from the Canada border to the mid-Washington coast, and there aren't any large population centers on the south Washington coast that would enable ocean energy development.

In December 2012, the Department of Energy funded seven **offshore wind** demonstration projects totaling $168 million over six years. One West Coast demonstration project, spearheaded by Principle Power, was selected and would be located in Federal waters off Coos

Bay, Oregon. Maps of coastal wind speeds indicate Oregon as having the highest average offshore wind speeds off all coastal states in the continental U.S. (National Research Energy Laboratory). The demonstration project will receive up to $4 million for Phase 1 to conduct engineering, site evaluation, and planning, including addressing challenges associated with installing utility-scale offshore wind turbines, connecting offshore turbines to the power grid, and navigating new permitting and approval processes. Upon completion of Phase 1, the DOE Wind Program will select up to three of these projects for commercial development, eligible for up to $47 million over four years, subject to congressional appropriations. Projects are intended to be operational by 2017. This process is out front of the national marine spatial planning process for defining appropriate offshore areas for developing ocean energy.

Principle Power's "WindFloat" technology has a turbine with a rotor diameter of 120-170m that floats on a ballasted heave plate, which is moored to anchors via four mooring lines. The project site is at 300-400m depth range and within the migratory path of several marine and avian species. Consultations have not been initiated, but will likely start this year. The project is receiving substantial funding to complete the engineering, site evaluation, and planning phase and includes installation of five semi-submersible floating foundations outfitted with six-megawatt direct-drive offshore wind turbines. More information is available at: http://www1.eere.energy.gov/wind/offshore_wind.html

BOEM established the Oregon Outer Continental Shelf Renewable Energy Task Force in 2011 and has convened four task force meetings and a science meeting. BOEM's stated goal at the September 2012 meeting was to define a process for identifying "suitable" areas off Oregon for offshore energy development, but no apparent progress has been made on this front. A BOEM-sponsored science meeting was held at OSU in November, 2012. Additional information is available at: http://www.boem.gov/Renewable-Energy-Program/State-Activities/Oregon.aspx

In **California**, there are no developments pending on the OCS.

State Waters

Washington

Admiralty Inlet: This is a pilot tidal energy project in Puget Sound, conducted by Snohomish Public Utilities, which uses two Openhydro turbines that should be fully licensed by FERC in 2013. In January 2013 Federal Energy Regulatory Commission (FERC) released a draft environmental assessment that found that placing the two turbines in Admiralty Inlet would not harm the environment or nearby fiber-optic cables. The owner of the fiber-optic cables disagrees; there are also concerns about effects on killer whales and native plants. If all goes well for the Snohomish County Public Utility District (PUD), which is leading the project, the turbines could be in place in mid-2014.

Oregon

Atmocean in Charleston: Last August, Atmocean received an U.S. Army Corps of Engineers (COE) permit to perform a short-term test of its device in federal waters off of Charleston. A notable concern is that they locate the test far from rocky reefs.

Reedsport OPT Wave Park: Ocean Power Technologies (OPT), a New Jersey company, is preparing to deploy its wave energy device off the coast of Oregon this spring. Last fall, they installed one anchor and subsurface float, and a marker buoy on the surface. OPT received Energy Department support to develop and refine its PB150, a computer-equipped buoy more than 100 feet long. The buoy captures energy by bobbing up and down as waves pass by. FERC gave OPT approval on Aug. 20 to build a grid-connected 1.5-megawatt wave power farm off the Oregon coast, making it the first wave power station permitted in the United States. Oregon Wave Energy Task Force **(**OWET) conducted initial baseline studies and additional baseline studies are still expected from OPT. Implementation Committees (as required by the FERC license) will review study results and modify the project as necessary. In August 2012, OPT received its FERC license for the full 10-buoy build-out. The license requires that OPT begin the build-out within 2 years and complete it within 5 years. Coordination with agencies has begun, as required by the FERC License.

NOOTS (Newport Open Ocean Test Site): This National Marine Renewable Energy Center (NNMREC) project (OSU/UW collaboration) is funded by the Department of Energy. It is a wave energy research and test site located in state waters off Yaquina Head. Equipment was deployed in August 2012 and consists of 1 test berth and 1 device, plus all the mooring associated with each. This device is not grid-connected. Tests have been performed on acoustics and electromagnetic fields, and data have been gathered on benthic conditions and potential impacts. NNMREC's draft annual report is currently being reviewed by the Adaptive Management Committee and applicable agencies (NFMS, USFWS and ODFW). DOE is funding this project and was the lead federal agency during the NEPA process. The Environmental Assessment resulted in a FONSI. In August 2012, Northwest Energy Innovations (NWEI) was the first company to test its technology, a scaled model of its wave energy conversion device, at the test site. The results of those tests will enable NWEI to improve the device and inform development of a commercial-scale device. NWEI received a grant from the Energy Department to support the tests and to conduct grid-connected testing on its device at the Navy's Wave Energy Testing Site in Hawaii.

PMEC (Pacific Marine Energy Center): This is NNMREC's newest test site for testing grid connectivity and testing multiple devices at once. In December 2012, NNMREC convened a community stakeholder group to help identify a suitable location for the site. Though not yet formally proposed, they are considering a site approximately 6 nm off Newport, south of Yaquina Bay.

The Federal Energy Regulatory Commission (FERC) and BOEM have joint oversight of the project. NNMREC has initiated a multi-agency review committee (BOEM, FERC, NMFS, USFWS, Corps, Department of Land Conservation and Development, Division of State Lands, DOE, DEQ, ODFW). The process and scope of the project are not yet defined and no permit applications have been submitted. A key concern is for rocky reefs located in the nearshore vicinity. An appropriate cable crossing method would need to be identified for both reef and shoreline.

CALIFORNIA

San Onofre Wave Energy (JD Products): FERC terminated the Individual License Process in March 2012. In February 2013, JD Products submitted a grant application to DOE for funding a prototype fabrication and testing. A Preliminary Permit remains in place for project.

Golden Gate (Oceana) Tidal Energy: This project is on hold pending funding and license issues with FERC. PFMC 03/08/13