

PMC-ND

(1.08.09.13)

U.S. DEPARTMENT OF ENERGY
OFFICE OF ENERGY EFFICIENCY AND RENEWABLE ENERGY
NEPA DETERMINATION

**RECIPIENT:** Oregon State University**STATE:** OR

PROJECT TITLE : Using Multiple In Situ Approaches to Assess Fish Communities and their Connectivity in the Vicinity of Natural Rocky Outcrops and an Adjacent Active WEC Site in the Pacific Northwest.

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0000816	DE-EE0006388		GO6388

Based on my review of the information concerning the proposed action, as NEPA Compliance Officer (authorized under DOE Order 451.1A), I have made the following determination:

CX, EA, EIS APPENDIX AND NUMBER:

Description:

A9 Information gathering, analysis, and dissemination	Information gathering (including, but not limited to, literature surveys, inventories, site visits, and audits), data analysis (including, but not limited to, computer modeling), document preparation (including, but not limited to, conceptual design, feasibility studies, and analytical energy supply and demand studies), and information dissemination (including, but not limited to, document publication and distribution, and classroom training and informational programs), but not including site characterization or environmental monitoring. (See also B3.1 of appendix B to this subpart.)
B3.3 Research related to conservation of fish, wildlife, and cultural resources	Field and laboratory research, inventory, and information collection activities that are directly related to the conservation of fish and wildlife resources or to the protection of cultural resources, provided that such activities would not have the potential to cause significant impacts on fish and wildlife habitat or populations or to cultural resources.

Rationale for determination:

The U.S. Department of Energy (DOE) is proposing to provide federal funding to Oregon State University to study the behavioral impacts of wave energy conversion (WEC) devices on fish with a specific aim to understand how these behavioral changes impact the fish communities. Project funding would be used to conduct hook and line surveys, acoustic telemetry studies, drop video camera surveillance and fixed seabed sonar platforms at two sites. Studies would be conducted at the Pacific Marine Energy Center- North Energy Test Site (PMEC-NETS), located in approximately 45 meter water depth just northwest of Yaquina Head, Oregon; and a natural reef, located in approximately 40 meter water depth due west of Yaquina Head. The PMEC-NETS facility is an open ocean wave energy test site about 3.4-km² (1-square-nautical-mile) centered about 3 km (2 miles) off the Oregon coast near the city of Newport, Oregon.

Project tasks include:

- Task 1: Detailed work plan
- Task 2: Hook and Line Survey-Phase 1
- Task 3: Acoustic Telemetry-Phase 1
- Task 4: Video Surveys-Phase 1
- Task 5: Sonar Surveys-Phase 1,
- Task 6: Project Performance Assessment for Phase 2
- Task 7: Hook and Line Survey-Phase 2
- Task 8: Acoustic Telemetry-Phase 2
- Task 9: Video Surveys-Phase 2
- Task 10: Sonar Surveys-Phase 2
- Task 11: Data Integration

Hook and line fishing surveys would be carried out with a chartered Commercial Passenger Fishing Vessel for three seasonal (spring, summer, fall) day cruises per year, for a total of seven trips. Each cruise would consist of at least six sampling stations, three at the PMEC-NETS and three at the nearby natural reef. At each station, three deckhands would make a series of five coordinated deployments using a standardized three-hook sampling rig with a maximum take of 45 fish per site. Individuals would be identified to species, measured and weighed. Additionally, a fin clip would be taken from each individual to account for potential recapture.

During the acoustic telemetry study, 25 fish would be tagged with acoustic tags each year (for two years) to monitor their movements both within the WEC device area and at the nearby natural reef. Individuals would be captured during the hook and line surveys and surgically implanted with an acoustic transmitter. The tagged fish would be

released using a recompression cage to allow the animals to recover from any pressure differential prior to release. Fifteen individuals would be collected, tagged and deployed at the wave energy site and 10 individuals would be collected, tagged and deployed at the natural reef site for 2 years (50 total tagged fish). Tags would be monitored using an array of 4 moored VR2W receivers (VEMCO) at each site with a single moored VR2W receiver between the two locations to monitor any movements between the two. No ESA listed species would be tagged.

Drop video camera surveys would be conducted around the wave energy test site and at the nearby reef. The video lander would be an aluminum frame with two sets of video cameras with lights mounted on the frame. This work would be conducted using the OSU research vessel R/V Elakha for three seasonal day cruises per year (7 total trips). On each sampling trip, 12 lander drops would be conducted, six each at the artificial reef and the natural reef. At each station, the lander would be pushed off the stern of the research vessel. The vessel would then drift away from the lander and remain off-station for 10 minutes to allow video observations with minimal vessel noise. After 10 minutes, the lander would be retrieved.

The BioSonics seabed platform would use an active acoustic system, including scientific split beam sonar and multibeam imaging sonar. The platforms may be cabled to an existing buoy for power and communication. In the cabled mode, the systems on the platform would collect data continuously and make daily transmit status reports, data summaries and alert conditions to selected observers. The second operational mode would allow the platforms to operate autonomously. Acoustic data would be extracted from the platform following recovery. If cabling to the OSU Ocean Sentinel, OSU would need to determine the requisite moorings, cabling and electrical connections. The platform would be deployed from June to October in 2014 and again in 2015.

DOE has determined that proposed in-water survey activities, summarized above, and currently listed as Tasks 2-5 and Tasks 7-11 in the project's Statement of Project Objectives (SOPO), are consistent with DOE CX B3.3 "research related to conservation of fish, wildlife, and cultural resources"; however, DOE is required to comply with the Marine Mammal Protection Act, the Magnuson-Stevens Fishery Conservation and Management Act, and the Endangered Species Act prior to authorizing the expenditure of project funds for the initiation and completion of in-water surveys and data collection.

DOE has determined the limited duration and scope of these in-water survey activities would have no effect on historical or cultural resources; and would not have a significant impact to ambient noise levels on and near the bay and local air quality or levels of criteria air pollutants.

All other proposed project management/planning activities as proposed in the current SOPO are administrative in nature and would be performed at facilities dedicated to this type of work.

Based on review of the project information and the above analysis, DOE has determined the proposed project is consistent with actions contained in DOE categorical exclusions A9 "information gathering, analysis, and dissemination," and B3.3 "research related to conservation of fish, wildlife, and cultural resources" and is categorically excluded from further NEPA review. Task 2-5 and Task 7-11 are conditioned subject to DOE's compliance with the Marine Mammal Protection Act, the Magnuson-Stevens Fishery Conservation and Management Act, and the Endangered Species Act.

NEPA PROVISION

DOE has made a conditional NEPA determination for this award, and funding for certain tasks under this award is contingent upon the final NEPA determination.

Insert the following language in the award:

You are restricted from taking any action using federal funds, which would have an adverse affect on the environment or limit the choice of reasonable alternatives prior to DOE/NNSA providing either a NEPA clearance or a final NEPA decision regarding the project.

Prohibited actions include:

Task 2-5 and Task 7-11 are conditioned subject to DOE's compliance with the Marine Mammal Protection Act, the Magnuson-Stevens Fishery Conservation and Management Act, and the Endangered Species Act.

This restriction does not preclude you from:

The remainder of project activities (Task 1 and Task 6) are categorically excluded from further NEPA review.

If you move forward with activities that are not authorized for federal funding by the DOE Contracting Officer in advance of the final NEPA decision, you are doing so at risk of not receiving federal funding and such costs may not be recognized as allowable cost share.

Insert the following language in the award:

You are required to:

DOE is required to comply with Marine Mammal Protection Act, Magnuson-Stevens Fishery Conservation and Management Act, and Section 7 of the Endangered Species Act prior to authorizing the expenditure of project funds for proposed in-water surveys and data collection under Tasks 2-5 and Tasks 7-11. The recipient is restricted from initiating Tasks 2-5 and Tasks 7-11 in-water survey activities until DOE complies with these regulations and notification has been received from DOE. The DOE Contracting Officer will notify the recipient, in writing, when they are authorized to initiate these activities.

Note to Specialist :

This NEPA determination requires a tailored NEPA provision.
Kelly Daigle 12/18/2013

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____

Electronically Signed By: Lori Gray
NEPA Compliance Officer

Date: 12/18/2013

FIELD OFFICE MANAGER DETERMINATION

Field Office Manager review required

NCO REQUESTS THE FIELD OFFICE MANAGER REVIEW FOR THE FOLLOWING REASON:

- Proposed action fits within a categorical exclusion but involves a high profile or controversial issue that warrants Field Office Manager's attention.
- Proposed action falls within an EA or EIS category and therefore requires Field Office Manager's review and determination.

BASED ON MY REVIEW I CONCUR WITH THE DETERMINATION OF THE NCO :

Field Office Manager's Signature: _____

Field Office Manager

Date: _____