

PMC-ND

(1.08.09.13)

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



RECIPIENT: University of Washington

STATE: WA

PROJECT TITLE: An Intelligent Adaptable Monitoring Package for Marine Renewable Energy Projects

<b>Funding Opportunity Announcement Number</b>	<b>Procurement Instrument Number</b>	<b>NEPA Control Number</b>	<b>CID Number</b>
DE-FOA-0000971	DE-EE0006788	GFO-0006788-004	GO6788

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:

**B3.16 Research activities in aquatic environments** Small-scale, temporary surveying, site characterization, and research activities in aquatic environments, limited to: (a) Acquisition of rights-of-way, easements, and temporary use permits; (b) Installation, operation, and removal of passive scientific measurement devices, including, but not limited to, antennae, tide gauges, flow testing equipment for existing wells, weighted hydrophones, salinity measurement devices, and water quality measurement devices; (c) Natural resource inventories, data and sample collection, environmental monitoring, and basic and applied research, excluding (1) large-scale vibratory coring techniques and (2) seismic activities other than passive techniques; and (d) Surveying and mapping. These activities would be conducted in accordance with, where applicable, an approved spill prevention, control, and response plan and would incorporate appropriate control technologies and best management practices. None of the activities listed above would occur within the boundary of an established marine sanctuary or wildlife refuge, a governmentally proposed marine sanctuary or wildlife refuge, or a governmentally recognized area of high biological sensitivity, unless authorized by the agency responsible for such refuge, sanctuary, or area (or after consultation with the responsible agency, if no authorization is required). If the proposed activities would occur outside such refuge, sanctuary, or area and if the activities would have the potential to cause impacts within such refuge, sanctuary, or area, then the responsible agency shall be consulted in order to determine whether authorization is required and whether such activities would have the potential to cause significant impacts on such refuge, sanctuary, or area. Areas of high biological sensitivity include, but are not limited to, areas of known ecological importance, whale and marine mammal mating and calving/pupping areas, and fish and invertebrate spawning and nursery areas recognized as being limited or unique and vulnerable to perturbation; these areas can occur in bays, estuaries, near shore, and far offshore, and may vary seasonally. No permanent facilities or devices would be constructed or installed. Covered actions do not include drilling of resource exploration or extraction wells.

Rationale for determination:

The Department of Energy (DOE) is proposing to authorize the expenditure of federal funding by the University of Washington (UW) to develop and field test an integrated instrumentation package to be used for environmental monitoring at marine and hydrokinetic energy sites. The integrated package is an enhanced version of the Adaptable Monitoring Package (iAMP) being developed by researchers at the Northwest National Marine Renewable Energy Center.

This project has three Budget Periods (BP). Three NEPA reviews were previously conducted for BP1 and BP 2 activities (GFO-0006788-001, CX A9, B3.6, September 5, 2014; GFO-0006788-002, CX A9, B3.6, July 12, 2016; GFO-0006788-03, CX B3.16, October 14, 2016) during which UW designed and tested the iAMP system. BP 3 consists of two tasks, both of which involve in water testing; this review is for both BP3 tasks.

The iAMP system includes a variety of environmental monitoring sensors. All sensors are either passive or operate at active frequencies beyond the hearing range of marine fishes and marine mammals. Specifically, sensors on the iAMP include: a multi-beam sonar which operates at 500 kHz; an acoustic camera which operates at 2250 kHz; a Doppler wave and current profiler which operates at 500 kHz; four passive hydrophones; and, a passive fish tag receiver.

In task 3.1, UW would deploy the iAMP system in Kaneohe Bay, Hawaii. That deployment would allow the iAMP system to monitor at an active marine and hydrokinetic energy site. Specifically, the iAMP would be attached to the LifeSaver Wave Energy Converter (LifeSaver) which would be deployed at the Navy's Wave Energy Testing Site (WETS) in Kaneohe Bay, Hawaii. DOE is not involved in the LifeSaver deployment. The LifeSaver, which has previously been deployed at both the WETS deep and shallow water locations, would be re-deployed at the shallow water location. A Biological Assessment (BA) was completed by the Department of Navy which evaluated the potential impacts from the deployment of the LifeSaver, with the iAMP package included, to Endangered Species Act (ESA)

listed species and their critical habitats, as well as Essential Fish Habitat. That BA concluded that the deployment would Not Likely Adversely Affect and ESA listed species, would have no effect on their habitat, and may effect Essential Fish Habitat (EFH) but those effects would be minimal and insignificant.

On March 7, 2018, UW, DOE, and Navy met with the National Marine Fisheries Service (NMFS) and presented information regarding the proposed deployment, including potential impacts. On March 29, 2018, Navy and DOE jointly provided NMFS with the BA described above. On April 16, 2018, NMFS concurred regarding the conclusions in the BA regarding EFH. On April 24, 2018, NMFS concurred with the conclusions in the BA regarding the conclusions for ESA listed species and their habitats.

In task 3.2, UW would deploy the iAMP system in Sequim Bay, at the Pacific Northwest National Lab (PNNL) lab, for the purpose of testing the range of fish tag receivers. This would involve using a cabled fish tag receiver to determine how far from the iAMP the receiver could be located with the iAMP still being able to detect the receiver. Testing would occur in 2018.

In October 2015, DOE, through PNNL, submitted a BA to NMFS regarding a proposed five year scientific research plan at PNNL, including Sequim Bay. The five year plan would cover the period from January 2016 through September 2020. The BA identified and analyzed eight different types of research that could occur at the site. This included potential impacts from research involving environmental monitoring using fish tag receivers. That BA found that such research would Not Likely Adversely Affect ESA listed species and/or their habitat and would not effect EFH. On January 27, 2016, NMFS concurred with that conclusion and agreed that all research that fit within one of the 8 research areas identified, including fish tag receivers, would not need additional consultation as long as it occurred within the five year research period. In March of 2016, NMFS agreed that the conclusions found in the BA presented by PNNL and the NMFS concurrence regarding those conclusions would apply to EERE. On March 12, 2018, PNNL confirmed to EERE that the proposed actions in task 3.2 fall within the types of research within the October 2015 BA and thus would need no additional consultation.

Any work proposed to be conducted at a DOE laboratory may be subject to additional NEPA review by the cognizant DOE NEPA Compliance Officer for the specific DOE laboratory prior to initiating such work. Further, any work conducted at a DOE laboratory must meet the laboratory's health and safety requirements.

Based on the review of the proposal, DOE has determined the proposal fits within the class of action(s) and the integral elements of Appendix B to Subpart D of 10 CFR 1021 outlined in the DOE categorical exclusion(s) selected above. DOE has also determined that: (1) there are no extraordinary circumstances (as defined by 10 CFR 1021.410(2)) related to the proposal that may affect the significance of the environmental effects of the proposal; (2) the proposal has not been segmented to meet the definition of a categorical exclusion; and (3) the proposal is not connected to other actions with potentially significant impacts, related to other proposals with cumulatively significant actions, or an improper interim action. This proposal is categorically excluded from further NEPA review.

#### NEPA PROVISION

DOE has made a final NEPA determination for this award

Insert the following language in the award:

If the Recipient intends to make changes to the scope or objective of this project, the Recipient is required to contact the Project Officer, identified in Block 15 of the Assistance Agreement before proceeding. The Recipient must receive notification of approval from the DOE Contracting Officer prior to commencing with work beyond that currently approved. If the Recipient moves forward with activities that are not authorized for Federal funding by the DOE Contracting Officer in advance of a final NEPA decision, the Recipient is 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:

Any work proposed to be conducted at a DOE laboratory may be subject to additional NEPA review by the cognizant DOE NEPA Compliance Officer for the specific DOE laboratory prior to initiating such work. Further, any work conducted at a DOE laboratory must meet the laboratory's health and safety requirements.

Note to Specialist :

This NEPA review requires a tailored NEPA provision  
Water Power Program  
NEPA review completed by Roak Parker 4.25.18

**SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.**

NEPA Compliance Officer Signature: \_\_\_\_\_

 Electronically Signed By: **Kristin Kerwin**

Date: **4/30/2018**

NEPA Compliance Officer

**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: \_\_\_\_\_