

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** : 3rd Generation Integrated Instrumentation: Enhancements to the Adaptable Monitoring Package

<b>Funding Opportunity Announcement Number</b>	<b>Procurement Instrument Number</b>	<b>NEPA Control Number</b>	<b>CID Number</b>
DE-FOA-0001418	DE-EE0007827	GFO-0007827-003	GO7827

**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.
- 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.)

Rationale for determination:

The U.S. Department of Energy (DOE) is proposing to provide funding to the University of Washington (UW) to develop and field test an integrated instrumentation package purpose built for environmental monitoring and marine hydrokinetic sites.

The proposed project would be divided into three Budget Periods (BP), with a Go/No Go decision point between each BP. DOE previously completed two NEPA reviews which reviewed BP1 (GFO-0007827-001 CX A9 and B3.16, 12/08/2016) as well as tasks 2, 3 and subtask 4.1 in BP2 (GFO-0007827-002 CX A9 and B3.6, 9/14/2017). Subtask 4.2 and 4.3 of BP2 could not be reviewed as additional consultation with the National Marine Fisheries Service (NMFS) was required. That consultation is now complete. Thus, this review is for the remaining subtasks in BP2, subtask 4.2 and 4.3. This NEPA Determination does not apply to BP3.

In subtask 4.2, UW would field test the upgraded iAMP device at the Pacific Northwest National Laboratory's (PNNL) Sequim Bay. In subtask 4.3, UW would analyze the data gathered in subtask 4.2.

In previously reviewed BP2 tasks, UW proposed to upgrade the iAMP device. The iAMP device is approximately 3 by 6 feet and integrates active acoustic, passive acoustic, and optical sensors. The active components would include an optical stereo camera, a multi beam sonar and an acoustic camera. It is a cabled system that is connected to shore

via a dual power and fiber optic cable. It is both deployed and retrieved by use of a remote operational vehicle. The upgraded device would include the integration of a 38kHz – 200 kHz sonar (known as the EK80). Consultation was previously completed regarding the original iAMP device (see GFO-0007827-002). However, due to the addition of the EK80 consultation was reinitiated.

On February 15, 2018, DOE, through PNNL, provided to NMFS a Biological Assessment regarding potential impacts that could occur due to deployment of the new unit. The new sonar unit would not be within the hearing range of any fish species, but would be within the hearing range of mammals. This would include one Endangered Species Act listed species, the Southern Resident Killer Whale (SRKW). However, the ecosounder on the unit would be pointed towards Travis Spit which is an area too shallow for SRKWs. The unit would also be within the hearing range of non-listed marine mammals (California sea lion (*Zalophus californianus*), Stellar sea lion (*Eumetopias jubatus*), harbor seal (*Phoca vitulina*), harbor porpoise (*Phocoena phocoena*), and Dall's porpoise (*Phocoenoides dalli*)). However, even for those mammals which could be within the shallow waters, there would be a very low risk of adverse effects to marine mammals. Based on the above analysis DOE determined that the use of the new sonar unit would Not Likely Adversely Affect (NLAA) any threatened or endangered species. The use of the unit would not occur in any area of critical habitat, and thus would not effect critical habitat. On March 7, 2018, NMFS concurred with DOE's assessment, but required UW to comply with certain best management practices during operation of the new unit.

Subtask 4.3 would involve only data analysis which would occur at the UW offices.

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 that subtasks 4.2 and 4.3 fit within the class of actions and the integral elements of Appendix B to Subpart D of 10 CFR 1021 outlined in the DOE categorical exclusions 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. Subtasks 4.2 and 4.3 are categorically excluded from further NEPA review.

#### 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:

All Budget Period 3 Tasks

This restriction does not preclude you from:

All Budget Period 1 and 2 Tasks

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:

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.

The recipient is shall ensure that the following mitigation measures and monitoring requirements are followed:

- Sampling via the EK80 shall occur only during daylight hours and when conditions support visibility to include the opposite shoreline of Travis Spit.
- There will be a minimum of one observer stationed on the dock during all EK80 operation time periods.
- The observer will be informed regarding identification of marine mammals that may occur in Sequim Bay, the approximate extent of the estimated acoustic footprint of the EK80, and typical marine mammal behavior. Observations

will begin 30 minutes prior to operation of the EK80 to ensure the area is devoid of marine mammals.

- The EK80 device must be shut down upon observation of any cetacean within or approaching the approximate acoustic footprint or upon observation of any apparent distress or adverse behavioral reaction evinced by any pinniped.

Note to Specialist :

Water Power Program

This NEPA review requires a tailored NEPA provision

NEPA review completed by Roak Parker 4.4.2018

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

NEPA Compliance Officer Signature:

 Electronically Signed By: **Kristin Kerwin**  
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 NEPA Compliance Officer

Date: 4/5/2018

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