

PMC-ND

(1.08.09.13)

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

**RECIPIENT:** Florida Atlantic University**STATE:** FL

**PROJECT TITLE** Technical Performance and Cost Optimization of Unobtrusive Multi-static Serial LiDAR Imager (UMSLI)  
 : for Wide-area Surveillance and Identification of Marine Life at MHK Installations

<b>Funding Opportunity Announcement Number</b>	<b>Procurement Instrument Number</b>	<b>NEPA Control Number</b>	<b>CID Number</b>
DE-FOA-0001418	DE-EE0007828	GFO-0007828-002	

**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.)

Rationale for determination:

The U.S. Department of Energy (DOE) is proposing to provide funding to Florida Atlantic University (FAU) to develop and field test an optical monitoring system for environmental monitoring and real time classification of marine animals at marine hydrokinetic sites. The proposed device is known as the Unobtrusive Multi-static Serial LiDAR Imager (UMSLI).

The proposed project would be divided into three Budget Periods, with a Go/No Go decision point between each Budget Period. Task 1 was reviewed as part of NEPA determination GFO-0007828-001 (CX A9, B3.16). This NEPA review is for Budget Period 2 (BP2) only. In BP2 FAU would conduct three subtasks. Subtask 2.2 would include implementing hardware improvements (optical, electronic and mechanical) to the UMSLI, based on analysis conducted in BP1. Subtask 2.3 would include implementing detection and classification improvements to analyze data obtained from the improved UMSLI system. Subtask 3.1 would include testing the improved UNSLI system in Sequim Bay at Pacific Northwest National Lab.

The UMSLI is a remote sensing device that uses light in the form of a pulsed radar to measure ranges (variable distances) to an object. The device also contains a camera to identify objects. The device would be housed in an aluminum cage, would emit no sound, and contain no fluids which may leak. The device would be lowered off the back of a small research vessel within Sequim Bay, and either towed behind the vessel or placed on the ocean floor. PNNL staff would operate the research vessel, secure the device to the ocean floor, if needed, and would follow PNNL established safety procedures.

Subtasks 2.2 and 2.3 would be limited to data analysis, systems design improvements and modifications to the UMSLI. All such work would occur at Florida Atlantic University in Fort Pierce Florida at dedicated university facilities designed for this type of work.

Subtask 3.1 would include testing the improved UMSLI in Sequim Bay at PNNL. Sequim Bay houses thirteen threatened or endangered (T&E) species, as well as numerous marine mammals. There is not enough information at this time to evaluate the potential impacts of testing the improved UMSLI in Sequim Bay.

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 Subtasks 2.2 and 2.3, 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 2.2 and 2.3 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:

Budget Period 2: Subtask 3.1: In-water improvement validation

Budget Period 3 (All Tasks)

This restriction does not preclude you from:

Budget Period 2: Subtasks 2.2: Implement hardware improvements and 2.3: Implement detection and classification improvements

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.

Note to Specialist :

Water Power Program

This NEPA review does require a tailored NEPA provision

Review completed by Roak Parker 7/16/18

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

NEPA Compliance Officer Signature:

 Electronically Signed By: Kristin Kerwin  
NEPA Compliance Officer

Date: 7/18/2018

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