

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

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0001418	DE-EE0007828	GFO-0007828-003	GO7828

Based on my review of the information concerning the proposed action, as NEPA Compliance Officer (authorized under DOE Policy 451.1), 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.)

B3.6 Small-scale research and development, laboratory operations, and pilot projects Siting, construction, modification, operation, and decommissioning of facilities for smallscale research and development projects; conventional laboratory operations (such as preparation of chemical standards and sample analysis); and small-scale pilot projects (generally less than 2 years) frequently conducted to verify a concept before demonstration actions, provided that construction or modification would be within or contiguous to a previously disturbed or developed area (where active utilities and currently used roads are readily accessible). Not included in this category are demonstration actions, meaning actions that are undertaken at a scale to show whether a technology would be viable on a larger scale and suitable for commercial deployment.

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).

There have been two previous NEPA reviews which reviewed tasks 1, 2.1, 2.2 and 2.3, GFO-0007828-001 and -002 (CX A9, B3.16). This NEPA review is for tasks 2.4, 3.1, 4.1, and 4.2

The UMSLI is a remote sensing device that uses light in the form of a pulsed green or red 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 tested in Sequim Bay, at the Pacific Northwest National Lab (PNNL). 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 2.4 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 with a green radar in Sequim Bay at PNNL. Sequim Bay houses thirteen threatened or endangered (T&E) species, as well as numerous marine mammals. On April 20, 2020 DOE made a determination that the proposed action may affect but would not likely adversely affect (NLAA) any of the listed species. DOE engaged in informal consultation with the National Marine Fisheries Service (NMFS) and the U S Fish and Wildlife Service. On June 26, 2020 the agencies concurred with DOE's determination. However, NMFS required that all in water work be conducted between July 16 and October 14.

In subtasks 4.1 and 4.2 FAU would develop plans towards a field test at a more energetic test site. Planning would include developing of any necessary Biological Evaluations and identifying and obtaining necessary permits.

In subtask 4.3 FAU would test their device at a more energetic test site than Sequim Bay. That site has not yet been determined and thus that subtask is restricted until further NEPA review.

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.

NEPA PROVISION

DOE has made a conditional NEPA determination.

The NEPA Determination applies to the following Topic Areas, Budget Periods, and/or tasks:

Budget Period 1 - All Tasks
 Budget Period 2 - All Tasks
 Budget Period 3 - Subtask 2.4, Subtask 4.2

The NEPA Determination does not apply to the following Topic Area, Budget Periods, and/or tasks:

Budget Period 3 - Subtask 4.3

Notes:

This NEPA determination does require a tailored NEPA provision.
 Water Power Technology Office
 Roak Parker 4/20/21

FOR CATEGORICAL EXCLUSION DETERMINATIONS

The proposed action (or the part of the proposal defined in the Rationale above) fits within a class of actions that is listed in Appendix A or B to 10 CFR Part 1021, Subpart D. To fit within the classes of actions listed in 10 CFR Part 1021, Subpart D, Appendix B, a proposal must be one that would not: (1) threaten a violation of applicable statutory, regulatory, or permit requirements for environment, safety, and health, or similar requirements of DOE or Executive Orders; (2) require siting and construction or major expansion of waste storage, disposal, recovery, or treatment facilities (including incinerators), but the proposal may include categorically excluded waste storage, disposal, recovery, or treatment actions or facilities; (3) disturb hazardous substances, pollutants, contaminants, or CERCLA-excluded petroleum and natural gas products that preexist in the environment such that there would be uncontrolled or unpermitted releases; (4) have the potential to cause significant impacts on environmentally sensitive resources, including, but not limited to, those listed in paragraph B(4) of 10 CFR Part 1021, Subpart D, Appendix B; (5) involve genetically engineered organisms, synthetic biology, governmentally designated noxious weeds, or invasive species, unless the proposed activity would be contained or confined in a manner designed and operated to prevent unauthorized release into the environment and conducted in accordance with applicable requirements, such as those listed in paragraph B(5) of 10 CFR Part 1021, Subpart D, Appendix B.

There are no extraordinary circumstances related to the proposed action that may affect the significance of the environmental effects of the proposal.

The proposed action has not been segmented to meet the definition of a categorical exclusion. This proposal is not connected to other actions with potentially significant impacts (40 CFR 1508.25(a)(1)), is not related to other actions with individually insignificant but cumulatively significant impacts (40 CFR 1508.27(b)(7)), and is not precluded by 40 CFR 1506.1 or 10 CFR 1021.211 concerning limitations on actions during preparation of an environmental impact statement.

A portion of the proposed action is categorically excluded from further NEPA review. The NEPA Provision identifies Topic Areas, Budget Periods, tasks, and/or subtasks that are subject to additional NEPA review.

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____

 Electronically Signed By: **Roak Parker**
 NEPA Compliance Officer

Date: 4/20/2021

FIELD OFFICE MANAGER DETERMINATION

- Field Office Manager review not required
 Field Office Manager review required

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

Field Office Manager's Signature: _____
Field Office Manager

Date: _____