

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



RECIPIENT: University of Massachusetts Amherst

STATE: MA

PROJECT TITLE: Fishway Entrance Palisade

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0001662	DE-EE0008340	GFO-0008340-001	

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.) |
| B3.6 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 on Energy (DOE) is proposing to provide funding to the University of Massachusetts, Amherst (UMass), to improve fishway entrance efficiency through a fish Entrance Palisade (EP) while reducing fishway construction and maintenance costs.

The proposed project would contain 6 tasks plus project management and reporting.

Tasks 1 and 2 would involve creating multiple EP designs and conducting computer analysis of each design.

Task 3 and 4 would involve fabricating the chosen EP design at the United States Geological Service (USGS) Conte Anadromous Fish Research Laboratory (CAFRL). The CAFRL is a research facility owned and operated by the USGS and which is designed to test experimental fish passages and hydraulic structures at model and full scales. The facility includes an approximate 14,000 square foot building which contains an indoor flume approximately 120 feet long, 20 feet wide and 20 feet deep through which water can flow to simulate a river environment. UMass would fabricate the temporary EP within the existing flume. The EP would be fabricated using stainless steel walls and gates, would be approximately 50 feet long, 20 feet wide and 10 feet deep, and would be located in the lower half of the flume. UMass would install video cameras and antennas within the EP to monitor the movement of fish.

Tasks 5 would involve testing the EP. UMass would collect blueback herring, walleye, American shad, and/or white sucker from the Connecticut River for use in the tests. Permits have been obtained for the collection of the fish and for

conducting tests with the fish. All fish would be collected from locations where no Threatened or Endangered species are present. For testing, the flume would be filled with water, collected fish would be placed into the flume entrance, and fish would be guided downstream towards the EP to determine whether the utilized design will guide fish into the EP, as well as how quickly the fish will enter the EP. Up to 35 tests would be conducted over a two month period of time. Each test would contain between 20 – 100 fish. Tests would last between 2.5 and 20 hours.

All procedures and protocols issued and approved by the Leetown Science Center's Institutional Animal Care and Use Committee would be adhered to throughout the testing activities and for disposal of specimens.

UMass would partner with USGS as well as the United States Fish and Wildlife Service and the National Oceanic Atmospheric Administration during all phases of the proposed project (design, fabrication, and testing).

No modifications to the existing CAFRL facility or new permits for construction would be needed.

Any work proposed to be conducted at a federal facility may be subject to additional NEPA review by the cognizant federal official and must meet the applicable health and safety requirements of the facility.

Based on the review of the proposal, DOE has determined that 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 federal facility may be subject to additional NEPA review by the cognizant federal official and must meet the applicable health and safety requirements of the facility.

Note to Specialist :

Water Power Program
This NEPA determination does require a tailored NEPA provision
NEPA review completed by Roak Parker 8/1/18

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature:


Kristin Kerwin
NEPA Compliance Officer

Date: **8/2/2018**

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: _____