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(1.08.09.13)

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



RECIPIENT: Hydro Research Foundation

STATE: ID

**PROJECT TITLE :** Hydro Research Foundation University Research Awards - U of Idaho

<b>Funding Opportunity Announcement Number</b>	<b>Procurement Instrument Number</b>	<b>NEPA Control Number</b>	<b>CID Number</b>
DE-FOA-0000832	DE-EE0006506	GFO-0006506-009	GO6506

**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.)
- B3.16 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 U.S. Department of Energy (DOE) is proposing to provide federal funding to the Hydro Research Foundation (HRF) to award grants to individual research projects through its University Research Awards Program. The intent of the grants is to support innovative research related to conventional or pumped-storage hydropower, stimulate interest among students and universities in this research arena, and provide students with a foundation for productive careers related to the hydropower industry.

DOE completed a previous NEPA review (GFO-0006506-001 CX A9 2/7/2014) that included development of a Hydro Fellowship Program that would provide 8-10 competitively awarded hydro-power related graduate-level research awards for one-to-two year periods of study. This NEPA determination applies to activities associated with one of the projects being conducted by a researcher with the University of Idaho, which has been selected to receive a grant award from the HRF.

The awardee would use HRF grant funding provided by DOE to develop a new, simple and economical method to continuously monitor and record local streambed scours and depositions. The method uses naturally occurring daily temperature oscillations in stream water as a signal to detect changes in streambed elevation. Specifically, small arrays of three temperature probes each would be inserted into the streambed in approximately four scour-deposition zones of the South Fork of the Boise River in the tailwaters of the Anderson Ranch Dam prior to high flow season. Digital streambed temperature data would be stored within the probe or sent via cellular communications to a

laboratory computer. Data analysis would occur at the University of Idaho Center for Ecohydraulics Research. Probes would be installed by hand by driving a sleeve pipe into the bed up to 1 meter deep, inserting the probe into the sleeve, and removing the sleeve allowing bed material to settle against the probe. The probes would be completely sealed to avoid internal water contamination, thus no potentially hazardous material would be introduced to the environment. Each probe would be removed upon project completion.

The proposed project activities would occur in USFWS riverine areas that are designated critical habitat for bull trout. However, the South Fork of the Boise River from Arrowrock Reservoir to Anderson Ranch Dam is not considered bull trout spawning habitat, and bull trout are not known to use any of the South Fork tributaries for spawning. Adult bull trout are known to over-winter and occasionally over-summer in the South Fork with population numbers in the river being consistently low. Project activities would occur during the summer months and take place in shallow water (1-2 feet), which would limit any potential adverse effects since bull trout numbers are limited during this time and are known to occupy deep pools. Each probe location would be monitored prior to probe installation to ensure that no bull trout is observed using that specific location. DOE has received communications from both USFWS and Idaho Fish and Game acknowledging the proposed activities taking place in the South Fork of the Boise River and noting that they have no concerns regarding interference with bull trout that may be present. Due to the overall small scale nature of the proposed project and minimal to no contact with bull trout, DOE has determined that there would not be significant impacts to bull trout as a result of project activities.

Based on a review of the project information and the above analysis, DOE has determined that activities associated with the University of Idaho proposed project would not have significant individual or cumulative impact to human health and/or environment. DOE has determined that the work outlined is consistent with the actions identified in categorical exclusion A9 "information gathering and data analysis," B3.16 "Research activities in aquatic environments," and 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 you intend to make changes to the scope or objective of your project you are required to contact the Project Officer identified in Block 11 of the Notice of Financial Assistance Award before proceeding. You must receive notification of approval from the DOE Contracting Officer prior to commencing with work beyond that currently approved.

Note to Specialist :

Review completed by Logan Sholar on 8/7/2014.

This NEPA determination does not require a tailored NEPA provision.

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

NEPA Compliance Officer Signature: Electronically Signed By: Lori Gray / Lori Gray Date: 8/7/2014  
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: \_\_\_\_\_ Date: \_\_\_\_\_  
Field Office Manager