

PMC-ND

(1.08.09.13)

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

**RECIPIENT:** Integral Consulting Inc.**STATE:** WA**PROJECT TITLE:** Standardized and Cost-Effective Benthic Habitat Mapping and Monitoring Tools for MHK Environmental Assessments

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0001418	DE-EE0007826	GFO-0007826-005	GO7826

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.)

B3.16 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 funding to the Integral Consulting Inc. (Integral) to standardize and automate seafloor and sediment imaging technologies for rapidly characterizing sediment and biota and generating benthic habitat maps across a range of environments.

DOE previously completed four NEPA reviews: Tasks 1-5, GFO-0007822-001 CX A9 and B3.16, 12/08/2016; Tasks 6-10, GFO-0007822-002 CX A9 and B3.16, 1/05/2018; Tasks 11.1 and 15 GFO-0007822-003 CX A9, 2/14/2019; Tasks 12.1 and 13 GFO-0007822-004 CX A9, 4/19/2019. This review is for all remaining tasks and subtasks (subtasks 11.2, 11.3, 11.4, 12.2, task 14 and task 16).

In subtasks 11.2, 11.3, and 11.4 Integral would conduct in water research in the Pacific Ocean off the coast of Newport, Oregon. Specifically, research would be conducted in an approximate 1,483 acre area in and adjacent to

the Pac Wave South wave energy test site.

In subtask 11.2, Integral would use an R2 Sonic 2024 multibeam echosounder (MBES) system to map the sea floor in the study area as well as determine water depth. The MBES system uses sound waves to conduct mapping. The MBES survey, which would be conducted with support from the Pacific Northwest National Lab, would occur from a 29 foot aluminum survey vessel and would take approximately 5 days.

Following the MBES survey, in task 11.3, Integral would conduct a sediment profile imaging and plan view (SPI/PV) survey. The SPI/PV survey would use an Ocean Imaging Systems model 3731-D sediment profiling system camera, to which an OIS DSC 24,000 digital still camera and OIS remote head strobe Model 3831 is attached. The camera will survey approximately 50 target locations in the survey area. The SPI/PV survey would be conducted from the 54-foot research vessel Elakha. The SPI/PV system would be lowered from the A frame of the research vessel to the sea floor. As the system nears the sea floor a lead ball hanging from the bottom of the frame contacts the sea floor and releases a trigger switch activating the flash and plan view camera to capture the image. Subsequently, the base of the sediment profile image frame makes contact with the sea floor and cuts into the substrate where it activates the strobe and captures an image of the substrate. The SPI/PV survey would take approximately 4 days.

In subtask 11.4 Integral would collect sediment samples at 25 of the SPI/PV collection sites. Surface sediment samples would be collected using a modified 0.1 square meter Gray-O'Hara box core sampler. The core sampler would be lowered from the research vessel to collect a sample. Sediment sampling would be conducted to allow Integral to ground-truth the data collected in the DPI/PV survey. Sediment sample collection would take approximately 2 days.

Work conducted under tasks 11.3 and 11.4 would be conducted with support from Oregon State University.

The proposed action area could include twelve Endangered Species Act threatened or endangered species (listed species), as well as critical habitat for nine of those species. DOE completed a Biological Evaluation (BE) to evaluate impacts of the proposed project to those listed species, their habitat, as well as Essential Fish Habitat (EFH). DOE determined that the effects of the proposed actions would include increased sounds levels from vessel traffic and potential behavioral disturbance from survey activities. Based on the analysis in the BE of those effects DOE determined that the proposed action was not likely to adversely affect listed species, designated critical habitats, and EFH.

On March 20, 2019, DOE initiated an informal consultation with the National Marine Fisheries Service (NMFS) and sought concurrence regarding the DOE determination. On May 2, 2019, NMFS concurred with DOE's determinations. In their May 2, 2019 letter NMFS identified avoidance and minimization measures which are required to be implemented to minimize impacts to the marine environment and listed species.

In task 12.2, Integral would integrate data gather in tasks 11.2, 11.3 and 11.4 into existing data sets from earlier survey work. In task 14, Integral would update algorithms within their software based on the data collected. In task 16, Integral would submit a final report to DOE. Tasks 12.2, 14, and 16 are limited to information gathering, computer modeling, and data analysis.

NEPA PROVISION

DOE has made a final NEPA determination.

Include the following condition in the financial assistance agreement:

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.

Integral must comply with the avoidance and mitigation measures identified on pages 3-4 of the May 2, 2019 National Marine Fisheries Service concurrence letter.

Notes:

This NEPA determination requires a tailored NEPA provision.

Water Power Technology Office
NEPA review completed by Roak Parker 5/14/19

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.

The proposed action is categorically excluded from further NEPA review.

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____


NEPA Compliance Officer

Date: 5/17/2019

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: _____