Sitewide Categorical Exclusion for Research Activities in Aquatic Environments, Pacific Northwest National Laboratory, Richland, Washington

Proposed Action

Pacific Northwest National Laboratory (PNNL) proposes to conduct small-scale, temporary surveying, site characterization, and research activities in the aquatic environment.

Location of Action

The proposed action would occur in rivers in the states of Oregon, Washington, or Idaho; off the Washington and Oregon coasts; or in Sequim Bay, Washington.

Description of the Proposed Action

The proposed action is to (1) acquire rights-of-way, easements, and temporary use permits; (2) install, operate, and remove passive scientific measurement devices; (3) conduct natural resource inventories, data and sample collection, environmental monitoring, and basic and applied research; and, (4) conduct surveying and mapping. Examples of such activities include, but are not limited to:

- Installation, operation and removal of antennae, tidal gauges, flow-testing equipment for existing wells, weighted hydrophones, salinity measurement devices, and water quality measurement devices
- Conducting benthic and fishery community inventories
- Collecting biotic and water samples for long- and short-term environmental monitoring
- Collecting biotic materials in support of habitat restoration

Proposed activities must meet the U.S. Department of Energy (DOE) categorical exclusion (CX) eligibility criteria (10 Code of Federal Regulations [CFR] 1021.410) and all of the following criteria:

1. Aquatic research 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.
2. Aquatic research activities would not 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). For example, the Washington Department of Natural Resources supports PNNL's scientific research activities conducted within the Protection Island Aquatic Reserve (located off the Washington coast) because such activities are consistent with the reserve's goals, objectives, and management.
3. Aquatic research activities would comply with applicable environmental administrative controls and permit requirements.

4. Aquatic research activities could use hazardous materials, should the use be necessary. Inventories would be maintained at the lowest practicable levels while remaining consistent with continuing operations and research goals, pollution prevention measures, applicable permits and licenses, manufacture label use instructions, and waste minimization practices.
5. Releases of liquid and/or airborne substances to the environment would be minimized and remain compliant with applicable facility, local, State, and Federal regulations; DOE Orders; and PNNL guidelines.
6. Wastes generated by aquatic research activities would be limited to those with an available disposal pathway. Volumes of waste generated by each activity would be reduced as much as possible by pollution prevention measures and waste minimization practices. Wastes would be dispositioned in accordance with applicable local, State, and Federal regulations and DOE Orders; and PNNL guidelines.
7. No permanent facilities or devices would be constructed or installed.
8. Aquatic research activities that require a U.S. Fish and Wildlife Service or National Oceanic and Atmospheric Administration or Marine Mammal Protection Act Incident Take Permit are not covered under this sitewide CX.

The proposed aquatic research activities would include reasonably foreseeable actions necessary to implement the proposed action (e.g., safety support; boat operation; material transport; project closeout; maintenance, development, and demonstration of processes, instruments, and detectors; consultation and planning with sponsors and collaborators; and maintenance, calibration, transport, and use of analytical and research equipment.

Biological and Cultural Resources

It is not likely that small-scale, temporary research activities in aquatic environments would result in adverse impacts to sensitive biological or cultural resources. However, when special project circumstances warrant it, biological and cultural resource reviews would be conducted to assure that impacts to sensitive resources are avoided and minimized.

Biological resource reviews would assure that impacts to sensitive biological resources are avoided. These reviews would identify the occurrence of Federally and State-protected species in the project area such as avian species protected under the Migratory Bird Treaty Act; Federally protected marine mammals (Marine Mammal Protection Act); plant and animal species protected under the Endangered Species Act (ESA), including candidates for such protection; and State species listed as threatened or endangered. Resource review recommendations would be followed to assure there are no adverse impacts to sensitive species and resources.

Cultural resource reviews would assure that impacts to sensitive cultural resources are avoided. Impact avoidance and mitigative measures would be implemented as stipulated by the resource review. If consultation with the State Historic Preservation Office and/or affected tribes is deemed necessary, it would be initiated before project implementation.

Categorical Exclusion to Be Applied

Because the proposed action is to conduct research activities in the aquatic environment, the following CX, as listed in the DOE National Environmental Policy Act (NEPA) implementing procedures 10 CFR 1021, would apply:

B3.16 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.

Eligibility Criteria

The proposed activity meets the eligibility criteria of 10 CFR 1021.410(b) because the proposed action does not have any extraordinary circumstances that might affect the significance of the environmental effects, 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 environmental impact statement preparation.

The "Integral Elements" of 10 CFR 1021 are satisfied as discussed in Table 1.

Table 1. Integral Elements, 10 CFR 1021, Subpart D, Appendix B (1)-(5)

Would The Proposed Action:	Evaluation:
Threaten a violation of applicable statutory, regulatory, or permit requirements for environment, safety, and health?	The proposed action would not threaten a violation of regulations or DOE or executive orders.
Require siting and construction or major expansion of waste storage, disposal, recovery, or treatment facilities?	No waste management facilities would be constructed under this CX. Any generated waste would be managed in accordance with applicable regulations in existing facilities. Waste disposal pathways would be identified prior to generating waste and waste generation would be minimized.
Disturb hazardous substances, pollutants, or contaminants that preexist in the environment such that there would be uncontrolled or unpermitted releases?	No preexisting hazardous substances, pollutants, or contaminants would be disturbed in a manner that results in uncontrolled or unpermitted releases.
Have the potential to cause significant impacts on environmentally sensitive resources., including, but not limited, to: • protected historic/archaeological resources • protected biological resources and habitat • jurisdictional wetlands, 100-year floodplains • Federally or State-designated parks and wildlife refuges, wilderness areas, wild and scenic rivers, national monuments, marine sanctuaries, national natural landmarks, and scenic areas.	No environmentally sensitive resources would be adversely affected. Refer to the Biological and Cultural Resources section for details. The proposed action would not adversely affect floodplains, wetlands regulated under the Clean Water Act, national monuments or other specially designated areas, prime agricultural lands, or special sources of water.
Involve genetically engineered organisms, synthetic biology, governmentally designated noxious weeds, or invasive species?	The proposed action would not involve the use of 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.

Checklist Summarizing Environmental Impacts

The following checklist summarizes environmental impacts that were considered when preparing this CX determination. Answers to relevant questions are explained in detail in the text following the checklist.

Would the proposed action:		Yes	No
1	Result in more than minimal air impacts?		X
2	Increase offsite radiation dose measurably?		X
3	Require a radiological work permit?		X
4	Cause more than a minor or temporary increase in noise level?		X
5	Discharge any liquids to the environment?	X	
6	Require a Spill Prevention Control and Countermeasures plan?	X	
7	Require an excavation permit (e.g., for test pits, wells, utility installation)?	X	
8	Disturb an undeveloped area?		X
9	Use carcinogens, hazardous, or toxic chemicals/materials?	X	
10	Involve hazardous, radioactive, polychlorinated biphenyl, or asbestos waste?	X	
11	Require environmental permits?	X	

Explanations:

5. Liquid wastes, including any liquid biological waste, generated by research operations would be discharged into existing treatment systems and/or managed in accordance with applicable local, State, and Federal regulations and permit requirements; DOE Orders; and PNNL guidelines.

6. Aquatic research 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.

7. Though expected to be a rare occurrence, it is possible that an excavation permit may be required for activities along the shoreline associated with aquatic research. Stipulations in the excavation permit to minimize potential impacts to safety and the environment would be followed.

9. Proposed aquatic research activities could use small quantities of carcinogens, hazardous and/or toxic chemicals and materials. Project inventories would be maintained at the lowest practicable levels and chemical wastes would be recycled, neutralized, or regenerated if possible. Product substitution (use of less toxic chemicals in place of more toxic chemicals) would be considered where reasonable. These materials would be recycled, re-used, or excessed for other uses to the extent practical.

10. Proposed aquatic research activities could result in hazardous or PCB wastes. If unrecyclable, such wastes would be returned to the client or characterized, handled, packaged, transported, treated, stored, and/or disposed of through treatment, storage, and disposal facilities in accordance with applicable local, State, and Federal regulations, DOE Orders; and PNNL guidelines.

11. Federal, State, or local environmental permits may be required for aquatic research activities. All necessary environmental permits would be obtained prior to conducting aquatic research activities.

Compliance Action

I have determined that the proposed action satisfies the DOE NEPA eligibility criteria and integral elements, does not pose extraordinary circumstances, and meets the requirements for the CX referenced above. Therefore, using the authority delegated to me by DOE Order 451.1B, Change 2, I have determined that the proposed action may be categorically excluded from further NEPA review and documentation.

Signature: _____ **Date:** 3/28/12

Theresa L. Aldridge
PNSO NEPA Compliance Officer