

Categorical Exclusion Determination

Bonneville Power Administration
Department of Energy



Proposed Action: Quagga Mussel Study Funding

Project No.: TIP 344

Project Manager: Kim Johnson, Public Utilities Specialist – PGA-6

Location: Lake Mead, Nevada

Categorical Exclusion Applied (from Subpart D, 10 C.F.R. Part 1021): B3.16 Research activities in aquatic environments

Description of the Proposed Action: BPA proposes to fund Smith-Root Inc. to conduct a study to determine whether ultraviolet light technology is effective in controlling dreissenid mussels, at the larvae stage. BPA's "Power Generation Asset Management Technology Roadmap" (Roadmap), published in November, 2014, identified dreissenid mussels as aquatic nuisance species that affect operations of dams and other water facilities by biofouling hard substrates, including pipes and water intakes, with accumulated shell debris. This biofouling results in expensive and labor intensive debris removal measures. Effective treatment of dreissenid mussels at the larvae stage would minimize or eliminate the expense of biofoul removal from the Federal Columbia River Power System projects.

Smith-Root, Inc., proposes to expose raw Lake Mead water, known to contain Dreissenid larvae, to different levels of ultraviolet light radiation and measure effects this exposure has on larvae mortality. Smith-Root will temporarily install a UV commercial system and cooling tanks in a 300 square foot area at the Alfred Merritt Smith Water Treatment Facility (Facility) in Boulder City, Nevada. Raw Lake Mead water collected at the intake will pass through a commercial UV system where it is exposed to ultraviolet light. The water then passes into a cooling tank containing plates to which any remaining larvae can adhere. The plates are then removed and the remaining water will be treated by the facility. The plates are then submerged from a pontoon boat in Lake Mead Marina to permit growout of any remaining larvae so that they can be detected and evaluated. Once the plates have been evaluated, they will be disposed of in accordance with Federal, state, and local laws.

No ground disturbance will result from the study. The study's discharge water is covered under SNWA's NPDES permit (EPA # 110042387574; Cerclis ID 110042387574). Also, Smith-Root, Inc., has obtained a Scientific Research and Collecting Permit from the National Park Service.

Findings: In accordance with Section 1021.410(b) of the Department of Energy's (DOE) National Environmental Policy Act (NEPA) Regulations (57 FR 15144, Apr. 24, 1992, as amended at 61 FR 36221-36243, July 9, 1996; 61 FR 64608, Dec. 6, 1996, 76 FR 63764, Nov. 14, 2011), BPA has determined that the proposed action:

- (1) fits within a class of actions listed in Appendix B of 10 CFR 1021, Subpart D (see attached Environmental Checklist);
- (2) does not present any extraordinary circumstances that may affect the significance of the environmental effects of the proposal; and

(3) has not been segmented to meet the definition of a categorical exclusion.

Based on these determinations, BPA finds that the proposed action is categorically excluded from further NEPA review.

/s/ Jennifer A. Corwin

Jennifer A. Corwin

Environmental Protection Specialist

Concur:

/s/ Stacy L. Mason

Stacy L. Mason

NEPA Compliance Officer

Date: October 29, 2015

Attachment(s): Environmental Checklist

Categorical Exclusion Environmental Checklist

This checklist documents environmental considerations for the proposed project and explains why the project would not have the potential to cause significant impacts on environmentally sensitive resources and would meet other integral elements of the applied categorical exclusion.

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Project Site Description

Water Treatment Facility of the Southern Nevada Water Authority at Lake Mead in Boulder City, NV and on a pontoon boat at Lake Mead Marina.

Evaluation of Potential Impacts to Environmental Resources

Environmental Resource Impacts	No Potential for Significance	No Potential for Significance, with Conditions
1. Historic and Cultural Resources	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<u>Explanation:</u> The project will occur within existing facility and result in no ground disturbance.		
2. Geology and Soils	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<u>Explanation:</u> The project will occur within existing facility and result in no ground disturbance.		
3. Plants (including federal/state special-status species)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<u>Explanation:</u> The project will occur within existing facility and result in no ground disturbance.		
4. Wildlife (including federal/state special-status species and habitats)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<u>Explanation:</u> The project will occur within existing facility and result in no ground disturbance.		
5. Water Bodies, Floodplains, and Fish (including federal/state special-status species and ESUs)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<u>Explanation:</u> The project will occur within an existing water treatment facility water obtained from facility's existing water intake. Once the water has been exposed and cooled, it is released and treated for human consumption.		

6. **Wetlands**

Explanation: The project will occur within existing facility and result in no ground disturbance.

7. **Groundwater and Aquifers**

Explanation: The project will require no ground disturbance.

8. **Land Use and Specially Designated Areas**

Explanation: The project will occur within an existing facility and result in no change to existing land use.

9. **Visual Quality**

Explanation: The project will occur within an existing facility. Consequently, no alterations to the visual quality of the area will occur.

10. **Air Quality**

Explanation: The project has no potential to affect air quality.

11. **Noise**

Explanation: The project has no potential to elevate noise levels beyond those produced by the existing water treatment facility in which the study will be performed.

12. **Human Health and Safety**

Explanation: The project has no potential to affect human health and safety.

Evaluation of Other Integral Elements

The proposed project would also meet conditions that are integral elements of the categorical exclusion. The project would not:

- Threaten a violation of applicable statutory, regulatory, or permit requirements for environment, safety, and health, or similar requirements of DOE or Executive Orders.

Explanation, if necessary:

- Require siting and construction or major expansion of waste storage, disposal, recovery, or treatment facilities (including incinerators) that are not otherwise categorically excluded.

Explanation, if necessary:

- 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.

Explanation, if necessary:

- 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 of the Department of Agriculture, the Environmental Protection Agency, and the National Institutes of Health.

Explanation, if necessary:

Landowner Notification, Involvement, or Coordination

Description: Smith-Root Inc., forwarded e-mail dated October 7, 2015, from, Dr. Todd Tietjen, Manager of the Southern Nevada Water Authority's Alfred Merritt Smith Water Treatment Facility, approving use of the facility for the study.

Based on the foregoing, this proposed project does not have the potential to cause significant impacts on any environmentally sensitive resources.

Signed: /s/ Jennifer Corwin
Jennifer Corwin

Date: October 29, 2015