

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



RECIPIENT: NREL

STATE: CO

PROJECT TITLE : NREL-25-022 Canal Floating Pan Evaporation Measurement System – Pinal County, AZ

Notice of Funding Opportunity Number	Procurement Instrument Number	NEPA Control Number	CID Number
	DE-AC36-08GO28308	GFO-NREL-25-022	GO28308

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:

**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's (DOE) is proposing to assist the Gila River Tribe, and the U.S. Bureau of Reclamation to temporarily install a measurement system device on an existing project in Pinal County, Arizona.

The purpose of this project is to place a "Canal Floating Pan Evaporation Measurement System" (Measurement System) that would float beneath existing solar panels along a Pinal County irrigation canal. This project received a prior NEPA Determination of a categorical exclusion (CE) by the Bureau of Reclamation (CE No. PXAO-23-26). The Measurement System would be used to measure water hydraulics and discharge, evaporation, solar panel production and efficiency, and aquatic plant growth. NREL would be subcontracted to perform technical advisory services, data collection and modeling, installation of instrumentation, reporting, and other technical assistance related to the Measurement Device.

The proposed project would first involve testing in three locations prior to installation. Testing would involve the deployment of the Measurement Device to determine functionality prior to use. The first two testing locations would be at the Ralston Reservoir and a canal off the reservoir in Jefferson County, Colorado. Denver Water (DW), the landowners, would allow access to the property and the use of one of their boats; DW staff would pilot the boat. Once complete, the Measurement Device would be transported to Pinal County in Arizona where the third round of testing would occur. Upon successful completion of the third test, the Measurement Device would be installed underneath the existing solar panels and tethered to them using ropes. The Measurement Device would be connected to a small datalogger that is positioned on land.

The project was proposed and funded by the Gila River tribe and has received authorization to conduct research on their land. DW has provided authorization for the use of the canal and reservoir for testing.

This NEPA Determination applies only to the scope of work outlined in this review. Should the project expand to other locations a further NEPA review would be required.

Impacts

U.S. Fish and Wildlife Service has identified eight threatened and three endangered species for both project areas using the Information for Planning and Consultation (IPaC) tool. At the Pinal County location, species that could be found in the area include the Cactus Ferruginous Pygmy-Owl, Yellow-billed Cuckoo, and the Gila Topminnow. At the Jefferson County location, species that could be found in the area include the Preble's meadow jumping mouse, Mexican spotted owl, Piping plover, Whooping crane, Greenback cutthroat trout, Pallid sturgeon, Ute ladies'-tresses, and Western prairie fringed orchid. IPaC identified the Bald Eagle, Golden Eagle, and twenty-four other migratory birds in the proposed project area in Jefferson County. The Bald Eagle and six other migratory bird species are identified in the Pinal County project area. There are no critical habitats designated for either location. Because the proposed work would occur under or around existing solar panels, the activities would preserve natural ecological conditions of the area, and protective measures would be implemented, the proposed project would have no effect on threatened or endangered species.

The Bureau of Reclamation initiated a Section 106 Consultation with the Community and the Bureau of Indian Affairs for potential impacts to three historic properties identified adjacent to area of potential effect of the project. The Community's Tribal Historic Preservation Office concurred with the Reclamation's determination of "No Adverse Effect" on November 30, 2023; the scope of work involved in the consultation includes the assistance NREL would provide.

All waste generated during the project would be reused, recycled, or disposed of in accordance with applicable regulations and NREL's policies and procedures. Local travel for research activities would result in de minimis air emissions.

Individuals working on this project could be exposed to various hazards. Existing corporate health and safety policies and procedures would be followed including employee training, work/worker authorization, proper protective equipment, engineering controls, and monitoring, as well as obtaining a Safe Work Permit. Additional policies and procedures would be implemented as necessary if new health and safety risks are identified.

For Categorical Exclusion Determinations:

- The proposal fits within a class of actions that is listed in Appendix B to 10 CFR Part 1021 or Appendix B and C of DOE's NEPA Implementing Procedures (June 30, 2025). To fit within the classes of actions listed in Appendix B to 10CFR Part 1021, or Appendix B of DOE's NEPA Implementing Procedures, a proposal must satisfy the conditions that are integral elements of the classes of actions in Appendix B of both 10 CFR Part 1021 and DOE's NEPA Implementing Procedures.
- 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.
- The proposed action is categorically excluded from further NEPA review.

NEPA PROVISION

DOE has made a final NEPA determination.

Notes:

NREL

Brandon Bammel, 10/10/2025

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature:

 Electronically Signed By: Nicole Serio

NEPA Compliance Officer

Date: 10/10/2025

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: _____