

PMC-EF2a

(2.04.02)

**U.S. DEPARTMENT OF ENERGY
EERE PROJECT MANAGEMENT CENTER
NEPA DETERMINATION**



RECIPIENT: Oregon Department of Energy

STATE: OR

PROJECT TITLE : Oregon ARRA SEP – Henley High School Geothermal Upgrade

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE FOA 0000052		GFO-10-472	0

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:

- B2.5** Safety and environmental improvements of a facility, including replacement and upgrade of facility components, that do not result in a significant change in the expected useful life, design capacity, or function of the facility and during which operations may be suspended and then resumed. Improvements may include, but are not limited to: Replacement/upgrade of control valves, in-core monitoring devices, facility air filtration systems, or substation transformers or capacitors; addition of structural bracing to meet earthquake standards and/or sustain high wind loading; and replacement of aboveground or belowground tanks and related piping if there is no evidence of leakage, based on testing that meets performance requirements in 40 CFR part 280, subpart D (40 CFR part 280.40). This includes activities taken under RCRA, subtitle I; 40 CFR part 265, subpart J; 40 CFR part 280, subparts B, C, and D; and other applicable state, Federal and local requirements for underground storage tanks. These actions do not include rebuilding or modifying substantial portions of a facility, such as replacing a reactor vessel.
- B5.1** Actions to conserve energy, demonstrate potential energy conservation, and promote energy-efficiency that do not increase the indoor concentrations of potentially harmful substances. These actions may involve financial and technical assistance to individuals (such as builders, owners, consultants, designers), organizations (such as utilities), and state and local governments. Covered actions include, but are not limited to: programmed lowering of thermostat settings, placement of timers on hot water heaters, installation of solar hot water systems, installation of efficient lighting, improvements in generator efficiency and appliance efficiency ratings, development of energy-efficient manufacturing or industrial practices, and small-scale conservation and renewable energy research and development and pilot projects. The actions could involve building renovations or new structures in commercial, residential, agricultural, or industrial sectors. These actions do not include rulemakings, standard-settings, or proposed DOE legislation.

Rational for determination:

The State of Oregon will provide \$643,000 in Recovery Act funding to Henley School for the purchase and installation of equipment to enhance the School's heating system. The project has two components, 1) improvement to the school's insulation and HVAC system to better utilize geothermal energy, and 2) installation of a discharge pipeline and injection well to return the geothermal water to the aquifer from which it was drawn. The project is driven by the State's decision to disallow the discharge of the spent geothermal water to a cooling pond, which empties into a drainage ditch and to the Lost River. The project will allow the school to maintain the use of and to maximize the energy potential of an existing geothermal well for supplying HVAC needs to the School. Henley School is located at 8245 Hwy 39, Klamath Falls, OR.

Recovery Act funds will be used to support improvements to the building envelop (insulation and lighting), heating system, and heating system controls, including installation of HVAC upgrades to the library, music room, classrooms, gymnasium, locker rooms, cafeteria, and maintenance shop. A separate funding source is being used to support the discharge pipe and injection well work. These are connected actions.

The Henley School Complex is outside of the Klamath Falls urban growth boundary. The School includes a variety of buildings, parking lots, several sports fields, a stadium and track, and access roads. The School complex also includes two large agricultural fields that are sprinkler irrigated. The entire parcel is relatively flat with vegetation limited to weeds and grasses. The project area is zoned Exclusive Farm Use (EFU) and the surrounding areas as rural residential and EFU. There are two man-made ponds on the northwest corner of the property. The lining on the North Pond is significantly degraded and now supports vegetation and wetland plants. The lining on the South Pond is still in tack. There is an irrigation drainage ditch on the eastern edge of the property. The Army Corps of Engineers (Corps) has determined that the drainage ditch (uncertain jurisdiction) and the North Pond (jurisdictional waters) are wetlands, but that the South Pond is non-jurisdictional.

The project will disturb an area of about 0.07 acres via an approximate 2800 foot long pipe that will return geothermal water to the to-be-constructed reinjection well. The reinjection well will be approximately 1100 feet deep and located

approximately 2200 feet from the existing well. The reinjection well is to conform to the aesthetics of the surrounding environment. The re-injected water will be about 50 degrees cooler than what was drawn.

In response to the mandate from the Oregon Department of Environmental Quality to stop the discharge of the spent geothermal fluids into open waters, the school district initiated an environmental study and related consultation requirements to assess the potential environmental impact of the project. The DOE has reviewed the findings of that study and support its findings and conclusions, portions of which are synopsized below.

- Based on the State and local zoning laws, the project will have no impact on important farmland or forest areas.
- The Corps advised that a permit will be required if the project intends to discharge fill or dredge material into jurisdictional waters. The Corps also advised that the project will have no effect on Federal or State sensitive status species. It is noted here that a permit is not required as the project will not discharge fill or dredge material into jurisdictional waters. Further, the project area will not impact a designated floodplain area.
- The State Historic Preservation Office advised that the project area has high potential for buried artifacts or human remains, but that the project can proceed with precaution. Construction efforts are to cease should the work uncover artifacts or remains of cultural significance or interest. In related consultations, the Klamath Tribes advised that the project will most likely have no impact on cultural resources.
- The U.S. Fish and Wildlife Service advised that there was no concern about federally listed plants and animals in the general vicinity of the project. The habitat was previously disturbed and the specific habitat exhibited at the project area is not of concern for any of the species listed in the area.
- The Oregon Fish and Game advise that the project will have a positive impact on water quality and fish habitat for several listed species in the Lost River.

The environmental study indicates that the project is likely to have an overall positive impact on the surrounding environment. The DOE concurs with the findings of the study. Based on the information provided, the work outlined is consistent with activities identified in Categorical Exclusion B2.5 and B5.1.

NEPA PROVISION

DOE has made a final NEPA determination for this award

Insert the following language in the award:

Insert the following language in the award:

You are required to:

Advise the DOE project officer and NEPA compliance officer should asbestos or PCBs be found during renovation of the school building. The recipient is to provide documentation to support the proper handling and disposal of asbestos or PCBs should they be uncovered.

Note to Specialist :

According to the project officer, funding for this effort is \$643,000. Unless there is a significant change in the scope of this effort, a change in funding will not affect my determination.

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____

NEPA Compliance Officer

Date: 6/23/10

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 :