

PMC-ND
(1.08.09.13)

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



RECIPIENT: Ruby Mountain Inc.

STATE: TX

PROJECT TITLE : The Convergence of Heat, Groundwater, & Fracture Permeability: Innovative Play Fairway Modeling Applied to the Tularosa Basin

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0000841	DE-EE0006730	GFO-0006730-002	GO6730

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:

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.)
B3.1 Site characterization and environmental monitoring	Site characterization and environmental monitoring (including, but not limited to, siting, construction, modification, operation, and dismantlement and removal or otherwise proper closure (such as of a well) of characterization and monitoring devices, and siting, construction, and associated operation of a small-scale laboratory building or renovation of a room in an existing building for sample analysis). Such activities would be designed in conformance with applicable requirements and use best management practices to limit the potential effects of any resultant ground disturbance. Covered activities include, but are not limited to, site characterization and environmental monitoring under CERCLA and RCRA. (This class of actions excludes activities in aquatic environments. See B3.16 of this appendix for such activities.) Specific activities include, but are not limited to: (a) Geological, geophysical (such as gravity, magnetic, electrical, seismic, radar, and temperature gradient), geochemical, and engineering surveys and mapping, and the establishment of survey marks. Seismic techniques would not include large-scale reflection or refraction testing; (b) Installation and operation of field instruments (such as stream-gauging stations or flow-measuring devices, telemetry systems, geochemical monitoring tools, and geophysical exploration tools); (c) Drilling of wells for sampling or monitoring of groundwater or the vadose (unsaturated) zone, well logging, and installation of water-level recording devices in wells; (d) Aquifer and underground reservoir response testing; (e) Installation and operation of ambient air monitoring equipment; (f) Sampling and characterization of water, soil, rock, or contaminants (such as drilling using truck- or mobile-scale equipment, and modification, use, and plugging of boreholes); (g) Sampling and characterization of water effluents, air emissions, or solid waste streams; (h) Installation and operation of meteorological towers and associated activities (such as assessment of potential wind energy resources); (i) Sampling of flora or fauna; and (j) Archeological, historic, and cultural resource identification in compliance with 36 CFR part 800 and 43 CFR part 7.

Rationale for determination:

The U.S. Department of Energy (DOE) is proposing to provide funding to Ruby Mountain, Inc. to address the overarching theme of uncertainty quantification and reduction for geothermal exploration, specifically through the development of Geothermal Play Fairways. Phase/Budget Period 1 of the FOA was reviewed by GFO-FOA0000841-001 on 07/31/14. A previous NEPA determination for this project reviewed BP2 activities (GFO-0006730-001; CX A9, B3.1; 07/29/16) but restricted Task 13 pending additional information. This NEPA determination is for Task 13 of BP2: "Conduct Flow test of well RMI 56-5 at the McGregor Range." Additional NEPA review will be required if the recipient is selected to move forward into Budget Period 3.

Proposed activities associated with Task 13 of the project would include data analysis, computer modeling, site characterization, ground work and excavation. A flow test would be performed on an existing well (RMI 56-5) located in a previously disturbed area on McGregor Range at U.S. Army Fort Bliss in Otero County, New Mexico. The estimated duration of the test would be 7-14 days, during which it is anticipated that roughly 3,000,000 gallons of water would be produced. Ground disturbing activities would involve construction of a 180ft by 360ft infiltration pond adjacent to the well pad to accommodate water from the test. A Fort Bliss Excavation Permit would be obtained before commencing any ground disturbing activities. A decision on whether to fill in the pond or retain it for future use would depend on the needs of the Army. No change in the use, mission or operation of existing facilities at Fort Bliss would

arise as a result of proposed Task 13.

All workers would undergo mandatory unexploded ordinance (UXO) training prior to being allowed access to the range work area. The proposed activities would not involve the use or handling of hazardous materials. Minor and temporary amounts of non-hazardous solid waste generated by a small crew of workers would be disposed of in proper on-site receptacles and removed. No siting, construction or major expansion of waste storage, disposal, recovery or treatment actions/facilities would be required.

Due to the previously developed nature of this site, in addition to the small footprint and temporary duration of the proposed field test, impacts are not anticipated to any resources of concern. Fort Bliss has reviewed flow test activities to assess potential impacts of the flow test under a separate Record of Environmental Consideration (REC; see uploaded documentation), and found that the proposed Task 13 activities do not have the potential for significant environmental impacts and there were no significant environmental concerns anticipated. DOE has reviewed the Fort Bliss REC and associated documentation and concludes that there are no resources of concern, extraordinary circumstances, or project impacts that would preclude the issuance of a CX for Task 13 activities.

Based on the review of the proposal, DOE has determined that Task 13 in Budget Period 2 fits within the class of action(s) and the integral elements of Appendix B to Subpart D of 10 CFR 1021 outlined in the DOE categorical exclusion(s) selected above. DOE has also determined that: (1) there are no extraordinary circumstances (as defined by 10 CFR 1021.410(2)) related to the proposal that may affect the significance of the environmental effects of the proposal; (2) the proposal has not been segmented to meet the definition of a categorical exclusion; and (3) the proposal is not connected to other actions with potentially significant impacts, related to other proposals with cumulatively significant actions, or an improper interim action. Task 13 in Budget Period 2 is categorically excluded from further NEPA review.

NEPA PROVISION

DOE has made a conditional NEPA determination for this award, and funding for certain tasks under this award is contingent upon the final NEPA determination.

Insert the following language in the award:

You are restricted from taking any action using federal funds, which would have an adverse affect on the environment or limit the choice of reasonable alternatives prior to DOE/NNSA providing either a NEPA clearance or a final NEPA decision regarding the project.

Prohibited actions include:

Budget Period 3

This restriction does not preclude you from:

Budget Period 1

Budget Period 2

If you move forward with activities that are not authorized for federal funding by the DOE Contracting Officer in advance of the final NEPA decision, you are doing so at risk of not receiving federal funding and such costs may not be recognized as allowable cost share.

Note to Specialist :

Geothermal Technologies Office

This NEPA determination requires a tailored NEPA Provision.

NEPA review completed by Whitney Doss, 04/03/17

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature:



Casey Strickland

Date: 4/3/2017

NEPA Compliance Officer

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.
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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 :

Field Office Manager's Signature: _____
Field Office Manager

Date: _____