

APPENDIX D

**U.S. Fish and Wildlife Service
Concurrence Letter**



November 22, 2017

Larry Crist
U.S. Fish and Wildlife Service
2369 West Orton Circle, Suite 50
West Valley City, UT 84119-7603

Re: Determination of Effects for Utah Frontier Observatory for Research in Geothermal Energy (FORGE) Site in Beaver County, Utah

Dear Mr. Crist:

The U.S. Department of Energy (DOE) is preparing an Environmental Assessment (EA) for the proposed action of providing financial assistance to the Energy and Geoscience Institute (EGI) at the University of Utah and its partners for the proposed Utah Frontier Observatory for Research in Geothermal Energy (FORGE) site in Beaver County, Utah. The EA is being prepared to fulfill the DOE's obligations under the National Environmental Policy Act (NEPA), the Council on Environmental Quality's NEPA regulations, and the DOE's NEPA implementing procedures. The EA will evaluate the potential effects of construction and 5-year operation of this full-scale pilot test facility. The purpose of this letter is to initiate a consultation under the Endangered Species Act (ESA) regarding potential listed species that may occur within the project area and to submit a preliminary determination of effects for consideration.

For the proposed action, the DOE would provide the EGI with up to \$29 million of financial assistance to construct and operate the proposed FORGE facility to conduct cutting-edge research on engineered geothermal systems (EGSs). The proposed FORGE site is approximately 10 miles northeast of Milford in Beaver County, Utah, on private, State of Utah, and U.S. Bureau of Land Management (BLM) lands (Figures 1 and 2).

The proposed project would consist of the following surface-disturbing elements as depicted on the attached figures:

- Office site
- Four main well pads, up to three well pads for groundwater wells, and the existing Accord-1 well pad
- Access roads connection
- Power line corridor
- Surface water line (within power line corridor)
- Fiber optic line
- 10 seismic monitoring drillholes (assume 50 × 50 feet of disturbance)
- 42 survey monument and tiltmeter sites (assume 20 × 20 feet of disturbance)

Federally listed endangered, threatened, and candidate species in Beaver and Millard Counties consist of California condor (*Gymnogyps californianus*), Frisco buckwheat (*Eriogonum soredium*), Frisco clover (*Trifolium friscanum*), Ostler's peppergrass (*Lepidium ostleri*), Utah prairie-dog (*Cynomys parvidens*), and yellow-billed cuckoo (*Coccyzus americanus*).

No potential habitat is present for these wildlife and plant species in the project area (Table 1). The project area is not located in a U.S. Fish and Wildlife Service (USFWS) Utah prairie dog recovery unit or within USFWS Utah prairie dog buffers. In addition, when the BLM Cedar City Field Office completed an EA for the 2D vibroseis survey for an earlier phase of the FORGE project, it was noted that no listed species occurred within the project area. Frisco clover is found in Beaver and Millard Counties on volcanic soils at a total of five sites statewide. All known sites are located west of the project area in the San Francisco Mountains, Tunnel Spring Mountains, Beaver Lake Mountains, or south of the project area at Blue Mountain. There are no known occurrences of Frisco clover in or near the project area. Frisco buckwheat and Ostler's peppergrass are known to occur in the San Francisco Mountains in north-central Beaver County. They are narrow endemics restricted to soils derived from Ordovician limestone outcrops. No such outcrops exist in the project area.

Based on this analysis, the DOE believes a "no effect" determination would be valid for the ESA experimental population, nonessential California condor, and the federally threatened Utah prairie dog and yellow-billed cuckoo. The DOE requests your review of the proposed project and concurrence with this "no effect" determination.

Table 1. Potential habitat and effects determinations for federally listed species

Species	Status	Habitat Present	Determination
California condor	ESA, experimental population, nonessential in Utah	No	No effect
Frisco buckwheat	Candidate	No	Not applicable
Frisco clover	Candidate	No	Not applicable
Ostler's peppergrass	Candidate	No	Not applicable
Utah prairie dog	Threatened	No*	No effect
Yellow-billed cuckoo	Threatened	No	No effect

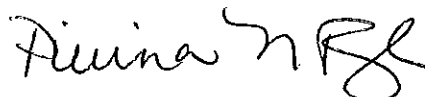
* The analysis area is not located in a USFWS Utah prairie dog recovery unit or within USFWS Utah prairie dog buffers.

If you have any questions or comments, please contact Ms. Pierina Fayish at

National Energy Technology Laboratory M/S:922-1W13(D)
P.O. Box 10940
Pittsburgh, PA 15236-0940
Attention: Pierina Fayish
Pierina.Fayish@netl.doe.gov
(412) 386-5428

Thank you for your assistance in this matter.

Sincerely,



Pierina N. Fayish

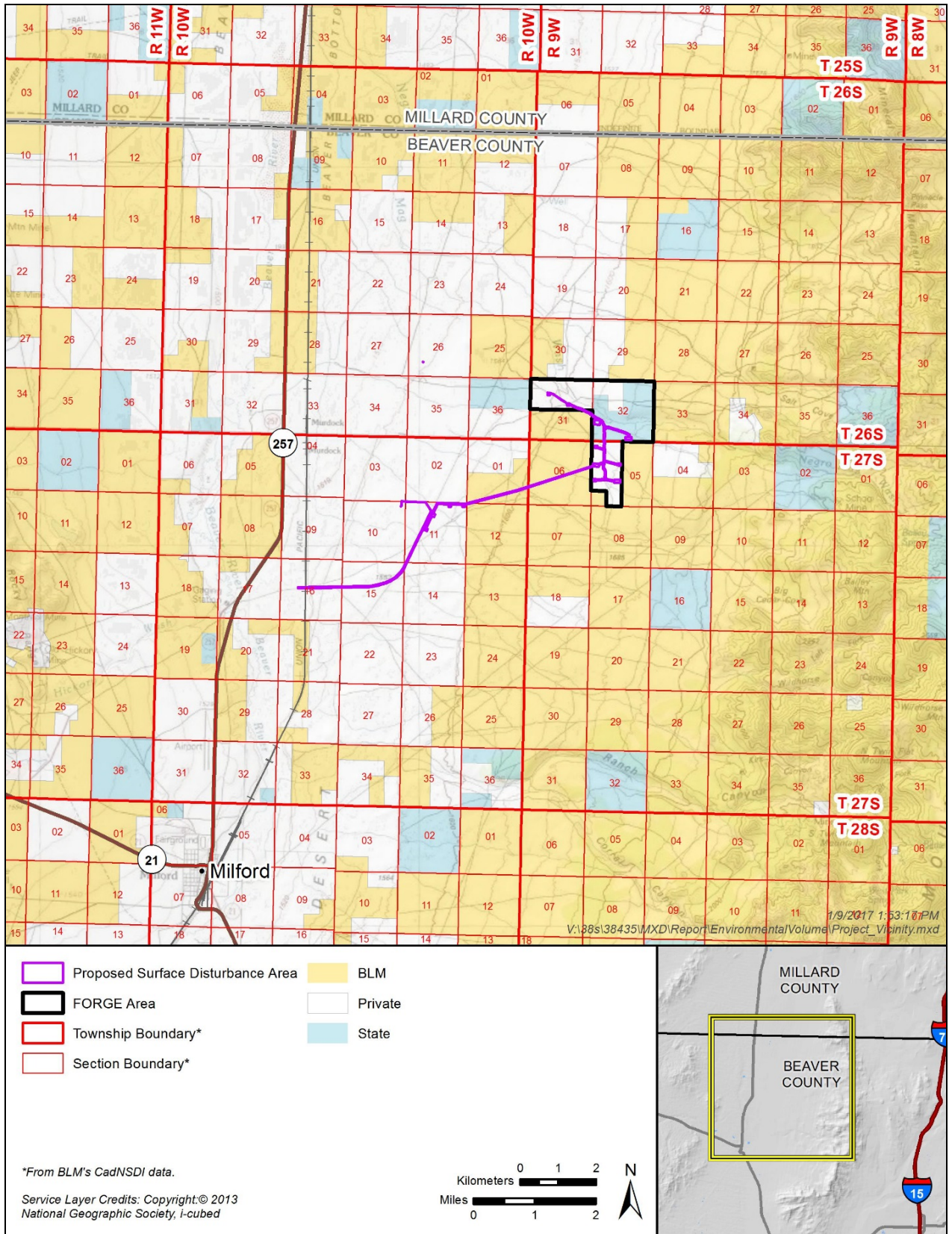


Figure 1. General project location.

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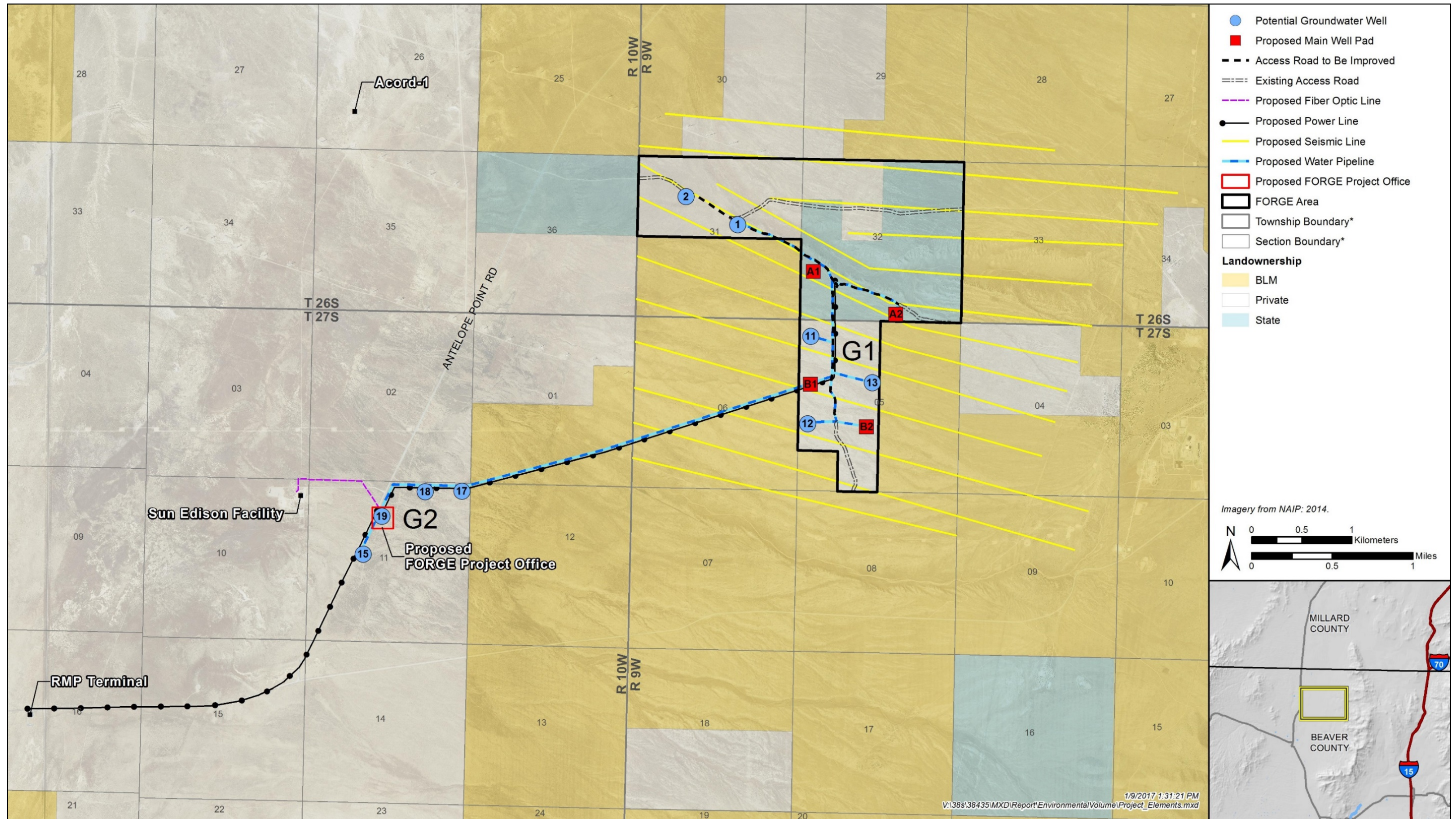


Figure 2. FORGE site project elements.

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