



United States Department of the Interior



BUREAU OF LAND MANAGEMENT
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In Reply Refer To:
NOPA-040-15-03

FEB 20 2015

NOTICE OF PROPOSED ACTION LANDS IN WILDERNESS

STATE: Nevada

COUNTIES: Lincoln

FIELD OFFICE(S): Caliente

WILDERNESS AREAS: Worthington Mountains

PROPOSED ACTION: Leviathan Cave – Climate History Research

Description of the Proposed Action

The Department of Geoscience at University of Nevada Las Vegas, has submitted a scientific proposal to study climate history based on Leviathan Cave formations. The proposal seeks to generate an extended climate history for the past half million years for the Great Basin from oxygen isotope time series from radiometrically-dated Leviathan Cave stalagmites, and to determine the age of the cave via Uranium-lead dating of spar and mammillary calcite deposits that formed beneath the water table prior to Basin and Range uplift of the Worthington Mountains.

The proposal developed by UNLV includes the following list of results that may be derived from this proposal:

- 1) the age and origin of Leviathan Cave;
- 2) the age and rate of formation of cave deposits;
- 3) the development of a climate history for Nevada;
- 4) development of natural history educational material to be provided to the BLM as part of the National Science Foundation research grant;
- 5) publication of results for availability to the international scientific community;
- 6) documenting the source of water infiltration to cave pools, which are an important water sources for bats living in Leviathan Cave; and

7) provide the 'natural' climate change background with which to understand future climate changes under an anthropogenically-altered climate.

The specifics of the proposal include:

- Hiking in/out to the cave daily, anticipating three days onsite. Camping at eastern trailhead. Seeking to undertake the project in April or September/November 2015.
- Collection of 3-6 dead and down stalagmites.
- Collection of one growth-position stalagmite.
- Collection of cave spar and mammillary calcites – 2-4 small hand sample-sized pieces.

Provide your comments on this proposed action to Emily Simpson, Wilderness Planner, at esimpson@blm.gov, or in writing to address above. If you do not have comments at this time, but wish to be notified when the environmental assessment is available for review, please respond to Emily Simpson via email to be included on future mailings regarding this topic.

The 30-day scoping period concludes Friday, March 20, 2015.


Michael J. Herder
District Manager
Ely District

20 Feb 15
Date