

The Mammoth Museum

Southern Mono Historical Society

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Casa Diablo Interpretive Trails Project:

The Long Valley caldera is a geographic “depression” in eastern California that is adjacent to Mammoth Mountain. Long Valley was formed 760,000 years ago when a huge volcanic eruption released hot ash that blanketed a 2,200 square kilometer area. Geologists call topographic depressions formed in this manner “calderas.” Long Valley is one of the largest calderas on earth. The causes of the [volcanism](#) that produced the Caldera are a matter of much ongoing research. Mammoth Mountain is part of this volcanic complex and is closely monitored by the [U.S. Geologic Survey](#) through their Long Valley Volcano Hazards Program.

The Long Valley Caldera and surrounding area is literally an “open book” library for the earth sciences. The Museum’s involvement is motivated by a growing recognition that the long-term economic health of the Town of Mammoth Lakes and Mono County is tied to successfully developing the links between its geologic and its cultural history.

The Museum’s vision for Mammoth is to become just as famous for its historical and scientific research as it is for skiing and outdoor recreation. To achieve this vision, we must establish formal relationships with outside institutions as well as provide better local resources to support short-term and long-term interpretive projects. The Museum will work with leading educators to launch a series of cultural learning and experiential programs in the earth sciences that inform and captivate the millions of people who have been touched by the wonders of the Eastern Sierra.

Project Objectives

- Develop for the public an Interpretive Trails program (Project), in partnership with Ormat, the USGS, and The Mammoth Museum to promote broader understanding of the science of geothermal energy development and production in and around the Long Valley Caldera. The “Impact” identified in the MP-II Environmental Impact Report (EIR) stated that “The power plant would attract the attention of people in the vicinity because it is so different from the surrounding scenery,” and that “Visitors to the area would be likely to drive by the plant to see it close-up and to satisfy their curiosity.” The “Mitigation” identified by the MP-II EIR for this Impact was as follows: “The project sponsor should be encouraged to participate in the installation of an informational display which passers-by could visit. It

could be as modest as a kiosk or as ambitious as a formal visitor's center, but it should describe the nature of the geothermal resource and how it is being utilized in a way that casual visitors could understand. Ideally this would be done in cooperation with the owners and operators of the other power plants in the area and coordinated with the U.S. Forest Service and Mono County Office of Geothermal Development". Furthermore, the EIR Findings required by the CEQA Guidelines in Section 15091 Mono County Use permit OIE-85-02 for the Mammoth Pacific, L.P. Unit II Geothermal Development Project page 24 of Attachment B #5 identified a Significant Effect: "The power plant would attract attention". The Findings continue on to state: "Changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

Ormat and The Southern Mono Historical Society are proposing that the following mentioned Interpretive Trails program be approved as required under the Findings of the MP-II EIR.

- This Project would consist of;
 - Interpretive walking paths approximately 6' in width (ADA accessible). These paths will be approximately 1,500 linear feet long, and constructed of wooden planks, or crushed rock, or compacted soil, or asphalt, and installed on property owned by Ormat Technologies, Inc. The trail would have interactive interpretive signage that will allow for visual and internet WI-FI access for viewers similar to the format of the Town of Mammoth Lakes (TOML) Way Finding Trails project so they can be linked. Signage focus will be on the cultural history, local geology, and in-depth explanation of geothermal power development and production.
 - The wooden paths would feature a number of "Interpretive signs", and two wooden observation decks (with safety features) for viewing the Long Valley caldera, its active and inactive fumaroles. and the Ormat geothermal power plant.
 - Construction of the site (100% local labor anticipated) will be minimally intrusive with a minor amount of dirt work to provide for the paths to comply with the ADA requirements. Crushed rock or asphalt will be used for the earth trails, parking areas and the vehicular access. Existing rock out-cropping will be avoided and earth paths will go around these features. Additionally, there will be no need to remove any existing trees.
 - Utilities (electricity) from the Ormat plant will be run directly to the service area (storage container, and ADA restrooms). Electrical service will be for the WIFI equipment, fresh water tank, and ventilation fans of the toilets. A 2,500 gal fresh water tank will be buried near the storage container. This will serve the hand washing needs of the restrooms (push button faucet).
 - Night vision security cameras will be strategically located around the project. These will feed to the internet and also to the control room of the Ormat Plant that is manned 24/7.
 - A PA notification system will be installed to alert guest of any emergency situation at the power plant that would require evacuation.
 - Access to the Project would be from the Casa Diablo Cut off Road with general public parking for up to four passenger vehicles at one time. Pedestrian access will be from a gate off of the Casa Diablo Cut off Road for self-guided tours. A bus and ADA access will be provided on an appointment basis by a local SMHS attendant. This road will remain closed to vehicular traffic with the exception of project service vehicles, ADA and buses. A minimal amount of fencing will be erected at the entrance with a locked vehicle gate across the road. The fence may extend perpendicular, twenty feet on each side of the road at a height of six feet.
 - - The Long Valley caldera, it's history, fault lines, contact zones and many other geological features will be viewed and explained. The Ormat power plant will use a variety of visual

and video aids to fully explain the process of geothermal development for the production of electric power.

- Authentic “cultural photographs” will be displayed and described along the trail. These will pin-point the locations of important historical buildings, log cabins, geysers, and business such as trading posts, diners, hotels, general stores, sweat houses, spas, gas stations and other attractions unique to Casa Diablo Hot Springs.
 - Bi-Monthly tours for residents of Mono County, local agencies and schools, of the Interpretive Trail System, will be provided by staff from The Southern Mono Historical Society’s Mammoth Museum.
 - Local organizations such as the Sierra Club, schools, service groups, etc... will be able to use the main observation deck for group talks and gatherings.
 - Displays are intened to be user friendly and state of the art. The trail signage will employ a QR code system to provide in depth information on all featured issues. All information will be updated as new information is made avaiable to the Museum.
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- Native species plants will be planted and displayed along the trail for Revegetation in areas that are disturbed during construction.
 - Parking will be in the existing county Right-of-Way with a connecting signed pathway (on land currently leased by Ormat from the Bureau of Land Management) to the Interpretive Trails entrance.
 - Rest rooms and observation decks will be ADA accessible via wood plank walkways.Type of sewer product to be determined by Mono County Health Department.
 - Signage will tie into the TOML existing trail sign program both in design and content.

Key Elements of the Project:

1. Subject site is 6 acres or 261,360 sq ft. Approximately 10% (25,000 sq ft) will be disturbed
2. Private vehicles (with exception of ADA and buses) will not be allowed in the Project site
3. No snow removal from trails or observation decks during snow events (site will be closed and secured)
4. Minimal fencing for vehicular determent and guest safety
5. Project site is located in area of numerous environmental studies over the last 30+ years
6. Project will have less than 10,000 sq ft of one story structures
7. All building exterior surfaces to blend into natural landscaping and existing environmental palette
8. Up to three 2800 sq ft (100’ x 28’) commercial grade greenhouses which will produce native species plants, and vegetables, with a 15,000 gal tank for water storage.

Reports Available by Request:

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| • Pacific Legacy Report | Sept 8, 2009 |
| • Geotechnical Investigation | August 31, 2011 |
| • Migratory Deer Survey | Feb. 10, 2012 |
| • Preliminary ALTA | Jan. 4, 2014 |
| • MP-II EIR | July 19, 1987 |
| • MP-II Conditional Use Permit | OIE-86-02 |