

NATIONAL SCIENCE FOUNDATION  
4201 Wilson Boulevard  
Arlington, Virginia 22230



OFFICE OF THE  
GENERAL COUNSEL

20 December 2016

Dr. Jeff Pappas  
Director and State Historic Preservation Officer  
New Mexico Department of Cultural Affairs –  
Historic Preservation Division  
407 Galisteo Street, Suite 236  
Santa Fe, New Mexico 87501

RE: Transmittal of 65 Historic Cultural Preservation Inventory Base Forms for the  
Proposed Changes to Sacramento Peak Observatory Operations, Sunspot, Otero  
County, New Mexico

Dear Dr. Pappas:

The National Science Foundation (NSF) initiated Section 106 consultation with the New Mexico Historic Preservation Division (HPD) on August 24, 2016, regarding the Proposed Changes to Sacramento Peak Observatory Operations in Sunspot, Otero County, New Mexico. Along with the Section 106 consultation letter, NSF transmitted two reports for your review and comment: *Cultural Resources Evaluation, National Solar Observatory (Sacramento Peak Observatory), Sunspot, New Mexico* and the *Archaeological Survey of 36 HA for AURA Inc. at the National Solar Observatory, Sunspot, Otero County, New Mexico, January 1995*. NSF requested concurrence on the project's area of potential effects (APE). In addition, NSF requested concurrence on the determination that there are two telescopes at the Sacramento Peak Observatory that are individually eligible for listing in the National Register of Historic Places (NRHP); that the Sacramento Peak Observatory is eligible for the NRHP as a historic district, containing 63 contributing resources; and that there are no known archaeological sites on the Sacramento Peak Observatory property.

On September 15, 2016, NSF received an email from HPD's Architectural Projects Reviewer (Log number 104236), Barbara Zook, providing concurrence on the proposed project's APE and requesting that Historic Cultural Preservation Inventory (HCPI) Base Forms be completed for the 65 historic-era buildings and structures that were evaluated as part of the 2016 Cultural Resources Evaluation. In response to this request, HCPI Base Forms were completed for the 65 evaluated buildings and structures and submitted to the HPD via the New Mexico Cultural Resources Information System (NCMRIS) on December 19, 2016. With this letter, NSF is transmitting hard copies of the completed HCPI Base Forms (Enclosure 1) and requesting concurrence on the determinations of eligibility.

**Determinations of Eligibility**

NSF has determined that there are two telescopes on the property that are individually eligible for listing in the NRHP: the John W. Evans Solar Facility and the Dunn Solar Telescope. Both are eligible under Criterion A for important associations with events that have made a significant

contribution to the field of solar astronomy. The Dunn Solar Telescope is also eligible under Criterion C for design and engineering. Additionally, NSF has determined that the Sacramento Peak Observatory is eligible for listing in the NRHP as a historic district for representing an important time in science and military history and for its significant contribution to the advancement of solar astronomy (Criterion A). The Sacramento Peak Observatory is a collection of Cold War-era buildings and structures primarily constructed between 1950 and 1969 that reflects the early history of solar astronomy in the United States. The telescopes and associated facilities have influenced other, more modern solar telescopes and the observations have greatly expanded the understanding of the sun. There are 63 built environment resources that are contributing elements to the Sacramento Peak Observatory historic district. Two buildings were identified as non-contributing resources. Table 1 lists the properties at the Sacramento Peak Observatory that were identified as individually eligible for the NRHP. Table 2, Evaluated Buildings and Structures, included as Enclosure 2, lists the buildings that contribute to the NRHP-eligible historic district.

**TABLE 1. Individually NRHP-Eligible Built Environment Resources within the APE**

Resource Name	Year Constructed	Description/Significance	NRHP Eligibility Determination
Sacramento Peak Observatory Historic District	1950-1969	Collection of solar telescopes, residential buildings, administrative buildings, and site infrastructure facilities associated with Sacramento Peak Observatory.	Eligible (Historic District); 63 contributing resources (see Enclosure 1)
John W. Evans Solar Facility, Building 3000 (housed in the Big Dome)	1952	Dome contains two coronagraphs, the largest in the United States, and a coelostat. Consists of a 30-foot dome on concrete walls.	Individually eligible and contributing to Sacramento Peak Observatory Historic District
Richard B. Dunn Solar Telescope, Building 3042 (formerly Vacuum Tower Telescope)	1969	A solar telescope composed of a vacuum tube centered within a concrete tower that extends 136 feet above ground and 228 feet below ground.	Individually eligible and contributing to Sacramento Peak Observatory Historic District

**Tribal Consultation**

On December 2, 2016, NSF initiated Section 106 consultation with the following Native American Tribes:

- Hopi Cultural Preservation Office
- Pueblo of Zuni Tribal Historic Preservation Officer
- Mescalero-Apache Nation
- Fort McDowell Yavapai Nation

The tribal consultation letters provided a description of the proposed action and known cultural resources at Sacramento Peak Observatory, and a request for information regarding traditional

cultural properties, sacred sites, and places that have historic, religious, or cultural significance that could be affected by the proposed action. No responses have been received to date.

**Request for Concurrence**

NSF requests your concurrence with the determination that there are two telescopes at the Sacramento Peak Observatory that are individually eligible for listing in the NRHP and that the Sacramento Peak Observatory is eligible for the NRHP as a historic district, containing 63 contributing resources. NSF is also requesting concurrence that there are no known archaeological sites on the Sacramento Peak Observatory property, based on the information provided in the archaeological survey report transmitted with the August 24, 2016, Section 106 initiation letter, *Archaeological Survey of 36 HA for AURA Inc. at the National Solar Observatory, Sunspot, Otero County, New Mexico, January 1995*. Please respond within 30 days from receipt of this letter to:

Ms. Elizabeth Pentecost  
National Science Foundation  
Division of Astronomical Sciences  
4201 Wilson Blvd, Suite 1045  
Arlington, Virginia 22230  
[epenteco@nsf.gov](mailto:epenteco@nsf.gov)

Attached please find 65 HCPI Base Forms for the evaluated historic-era buildings and structures at Sacramento Peak Observatory (Enclosure 1). Table 2 (Enclosure 2) lists all the buildings and structures that were recorded on HCPI Base Forms and identifies those that contribute to the NRHP-eligible historic district. If you have any questions, please do not hesitate to contact me by phone at 703-292-4592 or by email at [cblanco@nsf.gov](mailto:cblanco@nsf.gov). We look forward to further consultation on this proposed undertaking.

Regards,



*for* Caroline M. Blanco  
Federal Preservation Officer  
Assistant General Counsel  
Office of the General Counsel

CC: K. Hamilton  
E. Pentecost

**Enclosures:**

1. Historic Cultural Preservation Inventory (HCPI) Base Forms
2. Table 2: Evaluated Buildings and Structures