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LOS ALAMOS NATIONAL LABORATORY COMPLIANCE WITH CULTURAL RESOURCE MANAGEMENT LEGISLATION

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ABSTRACT

Cultural resources management is one aspect of NEPA-induced legislation increasingly affecting federal land managers. A number of regulations, some of them recent, outline management criteria for protecting cultural resources on federal land. Nearly all construction projects at the 11,135 hectare Los Alamos National Laboratory in northern New Mexico are affected by cultural resource management requirements. A substantial prehistoric Puebloan population occupied the Laboratory area from the 13th to the early 16th centuries. Grazing, timbering, and homesteading followed Indian occupation. Therefore, archaeological and historical ruins and artifacts are abundant.

The Laboratory has developed a cultural resources management program which meets both legal and project planning requirements. The program operates in coordination with the New Mexico State Historical Preservation Office. Major elements of the Laboratory program are illustrated by a current project involving relocation of a homesteader's cabin located on land required for a major new facility. The Laboratory cultural resource management program couples routine oversight of all engineering design projects with onsite resource surveys and necessary mitigation prior to construction. The Laboratory has successfully protected major archaeological and historical ruins, although some problems remain. The cultural resource program is intended to be adjustable to new needs. A cultural resource management plan will provide long-term management guidance.

SITUATION

A "cultural resource" derives from human activity. To receive protection, a resource must be at least 50 years old or of significant historical

consequence. A cultural resource is by definition fragile, that is non-renewable.

Since 1906, federal law has attempted to protect cultural resources located on federal land. Until recently most legislation, although well intended, did not promote rigorous management. Additional laws enacted during the 1960s and the 1970s provide the necessary criteria for protecting cultural resources. An important aspect of recent regulations is the oversight authority accorded state historical preservation officers and the National Advisory Council on Historic Preservation. Federal actions impacting cultural resources must be approved by not only the land manager, but also the Historical Preservation Officer and Advisory Council.

Cultural resource management requirements affect nearly all new construction projects at Los Alamos National Laboratory. The Laboratory covers 11,135 hectares (27,500 acres) on the Pajarito Plateau in Northern New Mexico. The Pajarito Plateau is typified by a series of hardened volcanic ash (tuff) mesas separated by several-hundred-meter-deep canyons. The mesas and canyons are bounded by the Jemez Mountains on the west and the Rio Grande on the east. Ponderosa pine grow at higher elevations, yielding to pinon/juniper woodland at about 2100 m (7000 ft). Below about 1970 m (6400 ft), rabbitbush and associated shrubs are dominant over large areas.

Evidence exists of long, but not necessarily continuous, pre-Columbian Indian occupation of the Pajarito Plateau. A Folsom Point fragment, possibly 10,000 years old, indicates some pre-Archaic use. A number of archaic projectile points, dating from about 1000 BC to 700 AD, have also been found on the Plateau. However, the major influx of pre-historic peoples occurred in the late 13th century. Puebloan Indians occupied the Pajarito Plateau continuously from the 13th until the 16th centuries. Hundreds of ruins from this period are found in the area. Most are small, date from between approximately 1250 and 1350, and are fairly evenly spread over the mesa tops. By the late 14th century, settlements were generally larger and at lower elevations. Much of the 15th century population concentrated in large settlements and villages centered around plaza sites. The unique cavates which dot the north walls of the canyon cliffs apparently date from this classical period.

The Pajarito Plateau was abandoned during the early 16th century for reasons largely unknown. Occasional Spanish grazing and farming followed, but the area remained essentially empty for the next two hundred years. Human activity revived in the late 19th century. Timbering gave way to homesteading, homesteading to the World War II Manhattan Engineering District and the Los Alamos Laboratory. Those who peopled these enterprises left historical resources scattered among the Indian ruins: roadways, cabins, fences, fields, and World War II structures. It is not unusual for new Laboratory projects to encounter these remains.

MANAGEMENT PROCESS

Charged to protect its many historically important resources, the Laboratory has developed a management program which addresses both legal and Laboratory planning requirements. The program combines routine oversight of

construction projects, field investigation, and where necessary, mitigation of potentially adverse effects. A staff member operating out of the Laboratory's Environmental Surveillance Group (HSE-8) reviews all construction plans for possible impact to cultural resources. This person may investigate a site or assign the Laboratory Contract Archaeologist, on call for one-day response, to do a field survey. If a cultural resource is present, the preferred management option is always avoidance, preservation in place. Usually a project can be sited to avoid the resource. If resiting is impossible, the Contract Archaeologist develops a plan to mitigate adverse impact. Adverse impact mitigation must meet the concurrence of the New Mexico State Historical Preservation Officer and must be completed prior to project construction.

AN EXAMPLE

The Laboratory cultural resource management process can be illustrated by a current Laboratory project involving construction of a major new facility, the Nuclear Materials Storage Building. Siting options were limited to one area optimally suitable for the facility's function. Laboratory Environmental Evaluation Coordination personnel routinely reviewed early engineering design plans for potential environmental problems. The selected area was known to be the site of a homesteading cabin (the "Romero Cabin") and a recorded lithic scatter. Both of these cultural resources had New Mexico Laboratory of Anthropology site designation (LA) numbers. A subsequent archaeological survey revealed, in addition, a collapsed smaller log structure, a dugout, a circular cement-lined cistern, a log corral, a burned animal shed, and scattered household and farming debris.

Environmental Evaluation Coordination personnel recorded the presence of these artifacts in the environmental remark prepared for the Nuclear Materials Storage Facility. This document is called an Action Description Memorandum (ADM). The ADM noted the presence of cultural resources, the need to mitigate adverse effects, and the legal requirement for consultation with the State Historic Preservation Office. Archaeological findings and mitigation requirements were subsequently included in the Nuclear Materials Storage Facility Design Criteria, a more comprehensive and detailed engineering review of the project.

The first construction phase of this project requires relocating an existing highway and utility corridor. The Romero cabin and other artifacts are in the path of construction. All resources are being evaluated and salvaged or excavated; an extensive data analysis program, including interviewing former occupants of the site, is underway. However, in the interest of brevity, we will concentrate on the process used to mitigate adverse impacts to the standing cabin.

The process was initiated when the Laboratory and Department of Energy (DOE) approached the local Los Alamos Historical Society and Los Alamos County Museum. Could the cabin be incorporated into the Los Alamos County Historical Museum interpretative program? The construction project would fund the move as well as cabin restoration. The answer was an emphatic yes! The Laboratory and the DOE consider Historical Society Museum ownership crucial to effective mitigation. Not only will the cabin be adequately curated, but it will be open to the public, a feature the Laboratory cannot provide. The Laboratory

and DOE began a process of formal correspondence with the Historical Society to transfer cabin ownership. Ownership will change hands when the cabin is relocated at the new site and restored to the conditions of its occupancy during the 1930s. To oversee the move and cabin restoration, the Laboratory obtained the services of a historic preservationist, an architect experienced in the removal of historical structures.

The County Historical Museum, consulting informally with the State Historical Officer, the Laboratory Contract Archaeologist, the historic preservationist, and a representative of the Los Alamos Historical Society, selected a site for the cabin. The site is next to the Museum and provides easy curative access. The Historical Society could now submit siting plans to the Los Alamos County Planning and Zoning Commission for review and approval.

In the meantime, the Laboratory Contract Archaeologist prepared a formal adverse impact mitigation plan. The plan included moving the cabin, collecting artifacts and data, and analyzing the material. The archaeologist also prepared an initial budget. The New Mexico State Historic Preservation Officer visited the cabin site and informally approved of plans as they were proceeding. Necessary personnel contracts were negotiated and finalized. The mitigation plan and budget were reviewed by project, DOE, and Laboratory personnel and refined. The DOE then submitted the mitigation plan to the State Historical Preservation Officer; he gave it formal approval. The DOE sent the mitigation plan and evidence of ownership transferral to the Denver-based Western Regional Office of the National Advisory Council on Historic Preservation for expected final approval.

The foregoing proceedings required the collaboration, or at least approval, of many people: Laboratory environmental surveillance personnel (who handled the paperwork of the project and coordinated the input of the various respondents); Laboratory construction project personnel; Laboratory purchasing and contract personnel; DOE construction and environmental personnel; technical personnel--surveyors, mappers, botanists, photographers, the archaeologist, the historic preservationist; State personnel; Historical Society and Museum personnel; local planning and zoning personnel. The proceedings also required a time span of almost a year (although activity was not continuous), in addition to the initial four months required to prepare the ADM and receive DOE approval for the ADM.

As to the current status of the mitigation project, the National Advisory Council on Historic Preservation, Denver, advised the DOE in mid October that mitigation can proceed after a formal Memorandum of Agreement stipulating method of mitigation is drawn up between the DOE and the Advisory Council. The MOA must be approved by the Council's Washington Headquarters. The Advisory Council has informed the DOE that further mitigation details are necessary. The Laboratory is in the process of complying. We expect field work to require approximately one month after we receive Advisory Council approval. Data analysis will continue through the spring.

CULTURAL RESOURCE MANAGEMENT PLAN

For the future, the Laboratory is completing a Cultural Resource Management Plan as required by the National Historic Preservation Act of 1966.

The plan will provide the framework necessary to protect resources located on Laboratory land. It will guide efforts to accurately record the data base - an extensive, time consuming task already well underway. The plan will also set resource management priorities and provide a systematic schedule for meeting them. A major goal of the plan is to provide sufficient guidance for effective management in tandem with sufficient flexibility to meet changing needs.