

CHAPTER 3

CULTURAL RESOURCES

3.1 INTRODUCTION

The cultural resources information in this chapter covers Areas I, II, III, and IV North, industrial sites, and right-of-ways associated with BHP Navajo Coal Company's (BNCC) mining lease (see EXHIBIT 3-1). Information concerning the nature and location of cultural, historic, and archaeological resources and properties, including survey and study reports submitted as part of this permit application package are understood to be confidential under applicable law.

Archaeological actions on the Navajo Mine leasehold have taken place in phases corresponding to the sequence of mining activities. Permitting activities on BNCC's mining lease have been and will be conducted in compliance with all applicable federal laws, including without limitation: National Historic Preservation Act (NHPA) of 1966 (Public Law 98-655), the Archaeological Resources Protection Act (ARPA) of 1979 (Public Law 96-96), and the Native American Graves Protection and Repatriation Act (NAGPRA) of 1990. (Appendix 3-1). In addition, BNCC intends to comply with the appropriate, applicable Navajo Nation policies, statutes and guidelines to the extent they are not inconsistent with applicable federal law.

3.2 CULTURAL/HISTORICAL BACKGROUND

At the onset of mining activities on the mining lease, BNCC (formerly BHP, Utah Construction & Mining Co., and Utah International Inc. (UII)) and Arizona Public Service Company (APS) obtained the services of the Museum of New Mexico's Laboratory of Anthropology to conduct an archaeological survey of the Area I and Area II prior to any land disturbances associated with the start of the Four Corners Power Plant and Navajo Mine. The northern portion of this area was cleared (reflecting approval) in June 1961 and the report from this initial survey was completed in 1962 (Greminger and Sciscenti, 1962). Area II was subsequently cleared on August 25, 1969.

An archaeological survey (Reher, 1977) was conducted for Areas III, IV North, IV South and V from September 1973 to December 1974. In this survey, 718 archaeological sites were identified; 153 of those sites were determined eligible for listing on the National Register of Historic Places (NHRP).

The archaeological compliance actions taken by BNCC and its consultants from 1961 to 2008 have resulted in the completion of BNCC's obligations under its permits and in the completion of OSM's (and other federal agency) obligations under applicable cultural resources management statutes and regulations within BNCC's mining lease lands from Area I to Area IV North. TABLE 3-1 summarizes the archaeological actions with compliance completion dates, the principle agency involved, area clearance granted, and principle consultant involved in the major mitigation projects.

Artifacts and records from these mitigation and research activities that have not been returned to the Navajo Nation are maintained at the Museum of New Mexico, University of New Mexico in Albuquerque, New Mexico, or at the San Juan County Museum in Bloomfield, New Mexico.

In 2004, BNCC contracted with San Juan County Museum Association's Division of Conservation Archaeology (DCA) to perform an updated inventory/evaluation of archaeological sites and historic properties within the Area IV North portion of the Navajo Mine lease area. DCA reviewed the literature and conducted field inventories to re-locate and characterize 57 sites previously identified within this area (Hogan and Winter, 1983; Reher, 1977). As part of its work, DCA identified 16 new sites of varying potential significance. A total of 73 archaeological or cultural resources sites were located and/or identified during the evaluation project (Meininger and Wharton, 2004).

TABLE 3-1

NAVAJO MINE ARCHEOLOGICAL CLEARANCE

Clearance Area		Acres	Clearance Approval	Clearance Date	Project Documentation ¹
1.	Mining Area I ² and Industrial Complex.	5307.60	Museum of New Mexico (MNM) ³	06/61	Report: "Archaeology of the 4 Corners Power Project", Greminger & Sciscenti, 1962.
2.	Mining Area II.	3391.10	MNM	08/25/69	Recommendation from MNM to NPS after survey finds no arch. sites.
3.	The "Neck", North of Area III.	160.00	National Park Service (NPS).	12/16/76	Report: "Archaeological Survey of the 160 ac. part of Area III of the Navajo Mine Leasehold known as "the Neck"", conducted for UII, Cultural Resources Management Prog., New Mexico State Univ.
4.	NW Corner of Area III.	661.80	NPS.	06/26/81	Report: "Human Adaptations in a Marginal Environment, The Mitigation Project, 1980, Office of Contact Archaeology (OCA), UNM.
5.	SW Corner of Area III.	1583.74	NPS.	12/10/79	11/27/79 letter from OCA to NPS recommending clearance.
6.	Eastern Side of Area III.	2709.70	NPS.	09/25/81	08/27/81 letter from UII to NPS requesting clearance based on CGP survey.
7.	106 acres on Eastern Side of Area III plus most of the Southern part of Area IV North.	4247.20	Office of Surface Mining (OSM).	12/12/84	Report: "Economy and Interaction Along the Lower Chaco River", OCA, May 1983.

¹All documentation, correspondences, reports, etc., have been submitted to OSM/WSC and are maintained as confidential.

²Acres reflecting Mining Area I only.

³The Museum of New Mexico in 1961 certified the "clearance" since no clearances were required at that time.

TABLE 3-1 Continued

NAVAJO MINE ARCHEOLOGICAL CLEARANCE

	Clearance Area	Acres	Clearance Approval	Clearance Date	Project Documentation¹
8.	27 EQ Areas.	842.00	OSM.	12/07/88	Report: "Archaic, Puebloan, and Navajo Land Use and Occupation Along the Middle Chaco River", Southwest Archaeological Consultants Inc. (SAR).
9.	Block "B".	820.00	OSM.	02/10/92	Approval letter from OSM/WSC to BHP. OSM in receipt of 2/5/92 submittal of the Navajo Nation Historic Preservation Officer & the State Historic Preservation Officers, 1/7/92 concurrence with DCA's 8/5/91 report "Archaeological Testing & Evaluation Report" for site NM-H-21-162.
10.	Block "D".	19.50	OSM.	10/12/93	Approval letter from OSM/WSC to BHP, based upon review of "Preliminary Data Recovery Report for Site LA 88815", DCA, August 1993.
11.	Block "A"	210.8	NNHPD	06/18/96	Approval by NNHPD for sites in Block A via OSM with effects/Conditions of Compliance to include a testing plan and a data recovery plan in consultation with NNHPD.

¹All documentation, correspondences, reports, etc., have been submitted to OSM/WSC and are maintained as confidential.

²Acres reflecting Mining Area I only.

³The Museum of New Mexico in 1961 certified the "clearance" since no clearances were required at that time.

TABLE 3-1 Continued

NAVAJO MINE ARCHEOLOGICAL CLEARANCE

	Clearance Area	Acres	Clearance Approval	Clearance Date	Project Documentation¹
12.	Area 3 Lowe Pit	111.41	BIA 11/02/99	11/2/99	Approval by NNHPD for A Cultural Resources Inventory of a Proposed Surface Addition to the Navajo Mine Area III Lowe Pit with No historic properties affected Cultural Resources Compliance Form signed and issued by BIA
13.	Area 4 North	4500	, BIA 06/08/05	06/08/05	NNHPD HPD-04-1252 Cultural Resources Compliance Form signed and issued by NNHPD via BIA. Effect/Conditions of Compliance to test 33 sites and mitigate 19 sites including ethnographic study completion prior to mining activities within the project area. The Eligibility evaluation of Cultural Resources for A4N submitted in 2004, Data Recovery and Treatment plan for 44 Sites submitted in 2006. Data Recovery and Treatment plan for 47 Sites submitted in 2006. NRHP Eligibility testing report for 33 sites submitted in 2007, Ethnography <i>Each Place Brings Stories</i> submitted in 2007, Preliminary Report on Excavation of 19 Sites in Area 4N completed in 2008. All material submitted to NNHPD.
14.	Burnham Road Realignment	188	BIA 12/27/07	03/07/08	NNHPD HPD-06-843 Revised Cultural Resource Survey of 188 Acres for a Proposed Realignment of Burnham Road, within and outside the Navajo Mine Lease Area. Cultural Resource Survey submitted to NNHPD in 2006.
	TOTAL:	25594.85			

¹All documentation, correspondences, reports, etc., have been submitted to OSM/WSC and are maintained as confidential.

²Acres reflecting Mining Area I only.

³The Museum of New Mexico in 1961 certified the "clearance" since no clearances were required at that time.

Based on the review of the DCA report, and in coordination with OSM, the Navajo Nation Historic Preservation Department (NNHPD) issued a Cultural Resources Compliance Form that outlined the Effects and Conditions of Compliance of the proposed project to conduct mining and related operations throughout Area IV North of the Navajo Mine lease. Of the total 73 cultural resources located in the proposed mine area, OSM, in coordination with NNHPD, determined that 21 were not eligible for listing on the National Register of Historic Places (NRHP) and 52 were NRHP eligible. In addition to the cultural resource or archaeological sites, one Traditional Cultural Property (TCP), also determined not eligible for the National Register, 4 burial locations, and 2 In-use sites were identified. OSM, in coordination with NNHPD, determined that a thorough ethnographic study, a data recovery plan, and additional testing were required to mitigate the adverse effects of the proposed mining impact.

In 2005, BNCC contracted Ecosystem Management, Inc (EMI) to draft a data recovery and treatment plan to conduct a thorough ethnographic study for Area IV North, to survey the proposed Burnham Road realignment, and to conduct additional eligibility testing in that area . The data recovery plan provided a framework for the mitigation and testing of 47 previously recorded archaeological sites located within Area IV North (Burelson, Phippen, and Yost 2006). This plan provided methodology for formal data recovery at 12 sites and testing at 35 sites to determine whether or not additional data recovery was warranted.

EMI subcontracted the prescribed ethnographic study to Dinetahdoo CRM. A plan was made for gathering ethnographic information, based on the review of the local literature, field visits to Navajo archaeological sites in Area IV North, and preliminary contacts with members of the families using the project area. This plan was submitted to and approved by OSM, in coordination with NNHPD, in 2006. Officials of the chapters that encompass the project area were consulted: Nenahnezad, Burnham, San Juan, Upper Fruitland, Sanostee, and Newcomb chapters. Individuals were identified for ethnographic interview by using data from the chapter contacts, historical users of the area, and individuals identified in previous ethnographic interviews. All together 36 people within six chapters were contacted. Nineteen individuals were taken on field visits to old family sites and or camps, and portions of interviews were conducted on those site visits. The results of the

ethnographic study were presented in the publication “Each Place Brings Stories” that was submitted to NNHPD in 2007 (Kelley et al 2007).

EMI also conducted a cultural resources Class III survey of the proposed Burnham Road realignment, including on and off lease segments of the realignment. In the survey area, four cultural resource sites were located (Burelson 2006). Based on the review of EMI’s report, OSM, in coordination with NNHPD, issued a Cultural Resources Compliance Form that outlined the Effects of the project and the Conditions of Compliance. All four sites were determined to be eligible for inclusion to the NRHP; three of the sites could be avoided by rerouting and one required mitigation. Mitigation work for the one site was completed in 2007 (Honeycutt 2008).

During the spring of 2007, EMI conducted evaluative investigations at 33 sites in Area IV North. Subsurface testing was conducted at 19 sites and detailed mapping and artifact analysis was conducted at the remaining 14 sites. The results of the testing indicated that 7 sites should be further mitigated according to the data recovery plan. In addition, it was recommended that the sites dating to the Navajo period should be considered as part of an eligible historic landscape (Johnson et al, 2007).

A Programmatic Agreement (PA) for Area IV North was developed, approved, and executed by OSM, NNHPD, and BNCC. The PA identifies participating parties, clarifies their roles and responsibilities, and establishes a process for consultation, review and compliance when taking into account effects of cultural properties by a federal undertaking in association with Section 106 of the National Historic Preservation Act of 1966. In this case, the PA is an agreement between the proponent (BNCC), the federal agency (OSM), and the Navajo Nation Historic Preservation Office (NNHPD). The Advisory Council on Historic Preservation chose not to participate in the PA. Various tribes were consulted during the process of developing the PA. The PA contains 17 stipulations, including on-going commitments such as project modifications, treatment of American Indian remains and cultural objects, distributions of sensitive cultural resources information, unanticipated discoveries, dispute resolutions, damage of known historic properties, curation, professional qualifications and permits, amendments and terminations, and duration.

In 2007, BNCC contracted Ecosphere Environmental Services to mitigate 6 of the 12 sites initially identified for data recovery. Under subcontract, Woods Canyon Archaeological Consultants, Inc. (Woods Canyon) completed the mitigation work at these sites. The mitigation of this work was conducted under the approval of an ARPA permit issued by the Bureau of Indian Affairs and a Navajo Nation Class C permit. As the fieldwork on this project was nearing completion, the results of EMI's testing were finalized. Based on the results of the testing, the contract for mitigation was expanded by 13 more sites; to include the 7 additional sites and the remaining 6 sites. Mitigation work was completed in May of 2008 and a preliminary report on the findings was submitted in October of 2008 to NNHPD (Honeycutt 2008). The technical report is in draft form and has been submitted to NNHPD.

In addition to the mitigation work, Woods Canyon was tasked to investigate the location of historic human burials in Area IV North. As a result of the ethnographic study, the locations of 10 human burials were claimed to exist. Investigations include surface inspection of locations, metal detector investigations, hand test units in the potential areas of the burial, and in the case of two locations mechanical testing. The investigations located probable evidence of burials (2) at one location in Area IV North. In accordance with Navajo Nation Jishchaa' Policy, the closest lineal descendants were interviewed and it was their desire to leave the graves where they are located. A fence has been built around the location of the burials and proposed mining activities will avoid the location. A confidential report on the investigations was written and filed with NNHPD.

In July of 2007, a meeting was held with representatives from NNHPD, BNCC, Woods Canyon, and EMI to discuss mitigation plans associated with the proposed historic landscape. It was decided to produce a web-based product that presents the results of the survey, excavation, and ethnographic data. In addition, a cultural landscape study was written as part of the technical report submitted to NNHPD.

DCA and the Ethnographic Study identified a Traditional Cultural Property (TCP), TCP1, within the Area IV North lease area. Ethnographic interviews were conducted with the individuals and their families familiar with the TCPs.

BNCC has and will comply with the American Indian Religious Freedom Act (AIRFA), the Native American Graves Protection and Repatriation Act of 1990 (NAGPRA), and the adopted 1996 Navajo Nation Policy for the Protection of Jishchaa': Gravesites, Human Remains, and Funerary Items, to the extent it is consistent with NAGPRA. A copy of policy is located in Permit NM-0003F, Chapter 3, Appendix 3-1. A confidential exhibit of possible human burial locations within and adjacent to Navajo Mine Permit Area is kept on file at Navajo Mine and the Office of Surface Mining/Western Regional Coordinating Center (OSM/WRCC). As stated above, the PA contains several on-going commitments which BNCC will also comply with, such as, Stipulations 7 and 11 of the PA. Stipulation 7 provides for the review of plans and reports by the parties to the PA. Stipulation 11 addresses the treatment of unanticipated discoveries encountered during project implementation.

3.3 PROTECTION OF PUBLIC PARKS AND HISTORIC PLACES

No existing public parks will require measures to be taken at Navajo Mine to minimize or prevent impacts due to mining and reclamation operations.

3.4

REFERENCES

- Burleson, Richard. 2006. Cultural Resource Survey of 188 Acres (76 hectares) for a Proposed Realignment of Burnham Road, Within the Navajo Mine Lease Area, Located in the Nenahnezad Chapter, Shiprock Agency, San Juan County, New Mexico. EMI Report 685a. Ecosystem Management Inc. (EMI). Albuquerque.
- Burleson, Richard, Robert Phippen, and Stephen W. Yost. 2006. Data Recovery and Treatment Plan for 47 Sites Located on Lease Area IV North, BHP-Billiton Navajo Coal Company's Navajo Mine, Navajo Reservation, Nenahnezad Chapter, Shiprock Agency, San Juan County, New Mexico. EMI Report 685. Ecosystem Management Inc. (EMI). Albuquerque.
- Greninger, H.C. and J.V. Sciscenti. 1962. Archeology of the Four Corners Power Project Museum of New Mexico Press, Number 5. Museum of New Mexico Papers in Anthropology, Santa Fe NM. 130 pp.
- Hogan, P. and J. Winter. 1983. Economy and Interaction Along the Lower Chaco River. University of New Mexico. Office of Contract Archaeology, Albuquerque.
- Honeycutt, Linda, Compiler. 2008. Preliminary Report on Excavations at 19 Sites, Lease Area IV North, BHP-Billiton Navajo Coal Company's Navajo Mine, Navajo Reservation, Nenahnezad Chapter, Shiprock Agency, San Juan County, New Mexico. Woods Canyon Archaeological Consultants, Inc., Yellow Jacket, Colorado
- Johnson, Jalesa, Nina Harris, Stephen Yost, Thomas F. Messerli, and Thomas Shine. 2007. NRHP Eligibility Testing at 33 Sites Located Within Lease Area IV North, BHP-Billiton Navajo Coal Company's Navajo Mine, Navajo Reservation, Nenahnezad Chapter, Shiprock Agency, San Juan County, New Mexico. Ecosystem Management, Inc. Albuquerque.

Kelly, Klara, Harris Francis, Rena Martin, John Torres-Nez, and Mary Bernard. 2007. Each Place Brings Stories: Navajo Mine, Area IV North Cultural Resources Intensive Data Recovery Project: Navajo Ethnology Sub-Project. Dine'tahdoo CRM, Farmington, New Mexico.

Meininger, J. and L. Wharton. 2004. Division of Conservation Archaeology. The Eligibility Evaluation of Cultural Resources Located Within Lease Area IV North of BHP Billiton Navajo Coal Company's Navajo Mine, Navajo Indian Reservation, Nenahnezad Chapter, Shiprock Agency, San Juan County, New Mexico. San Juan County Archaeological Research Center and Library, DCA Technical Report No. 04-DCA-114. 224 pp.

Moore, J. L. and J. Winter. 1980. Human Adaptations in a Marginal Environment: The UII Mitigation Project. Office of Contract Archaeology. University of New Mexico. Albuquerque.

Naylor, Billy J. 1976. Archaeological survey of the 160 acre part of Area III of the Navajo Mine leasehold known as "the Neck", conducted for Utah International, Inc. Cultural Resources Management Program, New Mexico State University San Juan Campus Report 76-SJC-091. Farmington.

Reher, Charles A. 1977. Settlement and Subsistence Along the Lower Chaco River: The CGP Survey. The University of New Mexico Press, Albuquerque NM. 164 pp.

Scheick, Cherie L. 1988. Archaic, Puebloan, and Navajo Land Use and Occupation Along the Middle Chaco River. Southwest Archaeological Consultants Technical Report No. 181.