

**SECTION 10**

**LAND USE**

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[10.A](#)

Letter to OSMRE from BHP

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**LIST OF REVISIONS DURING PERMIT TERM**

<b>REV. NUMBER</b>	<b>REVISION DESCRIPTION</b>	<b>DATE APPROVED</b>
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## 10 LAND USE

### 10.1 Prohibited, Limited and Unsuitable Lands

#### 10.1.1 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.

#### 10.1.2 Public Roads

Minor land uses in the Permit Area presently are two public roads (Table Mesa Road between Area 3 complex and Mason reclaim area, and Burnham road see [Exhibit 10-1](#) and [Exhibit 10-2](#)) and several natural gas pipelines and power transmission line easements. An existing dwelling, which is within 100 feet of mining, is the residence of Emma Yazzie in the Pinto area (see Exhibit 10-3, [Sheet 1](#) and [Sheet 2](#)).

##### 10.1.2.1 Relocation or Use of Public Roads

NIIP Road N3003 and BIA Road N5082 – There are two public roads, N3003 (Navajo Indian Irrigation Project (NIIP) road) and BIA road N5082, within the Permit Areas as illustrated in [Exhibit 10-1](#); [Exhibit 10-2](#); [Exhibit 10-4](#); [Exhibit 10-5](#); [Exhibit 10-6](#) and [Exhibit 10-7](#). NIIP road, N3003, is located east of Custer Pit and will not be affected by mining activities. Public road N5082 is an unimproved, 32 foot wide, dirt road (without proper drainage structures). It is located east of the present Area 3 mining activities and primarily serves the community of Burnham Chapter.

To facilitate the mining activities in the Dixon Pit extension area portions of N5082 will be relocated in two phases as described below. NTEC will follow the guidelines as outlined under 30 CFR 761.12(d) (Procedures) and 780.33 (Relocation or use of public roads).

- The first phase of relocating N5082, as detailed on the [Exhibit 10-8](#), “South Dixon Pit Extension – Burnham Road Re-route Location Map”, re-routed approximately 3,750 feet of the road along the east side of the Lowe/Dixon Diversion Extension. This phase of the Burnham Road Re-route was mined through in 2009.
- The second phase the road relocation re-routed N5082 around the northern and eastern side of the Dixon Pit extension, see [Exhibit 10-8](#) for alignment. The length of the re-route is approximately 14,500 feet increasing the length of the road by approximately 8,500 feet. Culverts were installed where drainages intersect the roadway. This road will also meet county road specifications and be passable in inclement weather and will be maintained by NTEC.
- The final phase will be the permanent reroute of the road, which will move the N5082 alignment east of the Cottonwood Arroyo North Fork diversion. The approximate timing for this phase is 2011. The permanent road re-route will be constructed to meet the county road specifications, be passable in inclement weather, and be maintained by NTEC until being released back to the BIA Roads Department.

- After completion of the permanent re-route the second phase re-route will be reclassified to an ancillary road. It will function as a service and access road.

Blasting operations in the vicinity of N5082 will follow the procedures outlined in Section 20.8 – Blasting Operations.

Public Road N36 – The public road N36 right-of-way was granted in December, 1984. The right-of-way consists of part of NTEC's (formerly BHP) original leasehold in the Watson Pit area. NTEC (formerly BHP) amended the leasehold in December, 1984, (see Permit NM-0003C, Chapter 32, Appendix 32-B for documentation regarding the release of the land and OSM's approval letter to BHP).

The BIA Roads Department began construction of N36 in April, 1985, adjacent to Watson Pit in the northern portion of the Permit Area. There will be no mining activities within 100 feet of the N36 right-of-way.

Table Mesa Road – The Table Mesa Road is located in two sections on the mine site. The first section branches off the Area 3 Main Access Road to the west and intersects the Area 3 By-pass Road. The second section extends off the Neck Road and crosses the railroad west into the Mason area. The road is approximately 22 feet wide and 1,000 feet long for the east section and 5,200 feet long for the west section. The Table Mesa Road is shown on [Exhibit 10-1](#).

### *10.1.3 Existing Operation Exemption Documentation*

#### 10.1.3.1 Waivers

Navajo Mine exemption waiver applies to the following public roads; Burnham and Table Mesa access road between Area 3 complex and Mason Reclaim area (see [Exhibit 10-1](#) and [Exhibit 10-2](#)). The dwelling exemption under this waiver includes the Emma Yazzie residence in Pinto area (see Exhibit 10-3, [Sheet 1](#) and [Sheet 2](#)). This waiver is to conduct coal mining and reclamation operations within 300 feet of an occupied dwelling or 100 feet of a public road as stated in the letter to OSMRE from BHP-UII ([Appendix 10.A](#)).

#### *10.1.4 Lands Unsuitable for Mining*

The Navajo Mine Permit Area is not within an area "designated unsuitable for surface coal mining operations" and not "under any study for designation in an administrative proceeding under Parts 762, 764, and 769 of 30 CFR."

The Navajo Mine Permit Area includes areas identified as "Pre-SMCRA" (Surface Mining Control and Reclamation Act of 1977, PL95-87) lands in Areas 1 and 2 (Exhibits 26-18 through 26-22). Pre-SMCRA lands are all lands from which coal was removed prior to December 16, 1977 (see SMCRA Section 710 (c)). There are no Pre-SMCRA lands in Areas 3, 4, and 5 of the Navajo Mine.

The BIA is the responsible Agency for setting reclamation standards on Pre-SMCRA lands at the Navajo Mine. Reclamation procedures used on Pre-SMCRA lands are the same as those used through the Permit Area (see Section 33 – Post-Reclamation Roads, Buildings, Facilities, and Other Structures) except that from 1985 forward no more than six (6) inches of topdressing material will be applied to Pre-SMCRA lands, and those Pre-SMCRA lands that have already been seeded and mulched without topdressing material may not have received topdressing material.

Roads on Pre-SMCRA lands are maintained to minimize erosion and adverse impacts to vegetation and wildlife, and will be reclaimed according to the standards set forth above.

Power plant waste disposal on Pre-SMCRA lands, and the reclamation of disposal locations, is subject to the standards set forth above.

### **10.2 Pre-mining Land Use**

Land Use in the Navajo Mine vicinity prior to coal mining operations is characterized as very low intensity livestock grazing, with few scattered dwellings and few primitive roads crossing the area. Existing land use in the Permit Area and adjacent areas exhibits much of the pre-mining use character, where traditional Navajo society is based on rangeland resources and livestock, principally sheep, goats, cattle, and horses. Rangeland plants, primarily through livestock grazing, provide the principal means by which the scant and scattered rainfall of the area is useful to the Navajo people. The reader is referred to Section 14 – Soil and Section 15 – Vegetation for details of land productivity. Presently, the Navajo Mine and associated facilities constitute a substantial portion of land use in the Permit Area. Adjacent to the north Permit Area on the west is Arizona Public Service Companies Four Corners Power Plant. East of the Permit Area is the Navajo Indian Irrigation Project (NIIP).

Reservation land belongs to the Navajo Nation. Individuals and families are granted permits to use this land for grazing. Claims to land use are based on traditional (customary) use rights and grazing permits. Grazing permits issued by the Bureau of Indian Affairs (BIA) Agency Superintendent based on recommendations of the Tribe's District Grazing Committee entitle the permittee to a range area of sufficient size to graze a specified number of animals. Original grazing permits, established by the BIA, were limited to 10 head of horses or 350 sheep units (minimum 10 to 350 maximum) annually. However, severe over-grazing has reduced the carrying capacity of the grazing permit areas (Navajo Grazing Handbook, Published by Navajo Tribal Counsel Jan 1958).

The capability and productivity of range sites are identified in Section 14 – Soil; Section 15 –Vegetation and Part 5 – Reclamation. Exhibit 6-2 (2 sheets), "Customary Use Area", as presented in Section 6 – Land Ownership and Control, depicts the respective grazing permittees within the Permit Area. NTEC has compensated previous customary users for loss of grazing areas in the North Area and Areas 2, 3, and 4.

It should be noted that grazing unit boundaries are generally unfenced and rely primarily on topographic features, roads, arroyos, and streams. Grazing seasons are year-long on all range units.

Wildlife habitat is also considered a use of land in the Permit Area (Section 16 – Fish and Wildlife). Also, the Permit Area includes portions of numerous watersheds (Section 18 – Water Resources).

Sources of livestock water are located in appropriate watersheds by constructing earthen ponds after consultation with the BIA Branch of Land Operations, Tribal District Grazing Committee, and Customary users. These earthen ponds are located off the Permit Area. There are two BIA stock ponds located within the Permit Area (Exhibit 16-3), one at Area 3 and the other in Area 4.

#### *10.2.1 Evaluation of Scenic Resources*

Navajo Mine extends in an irregular fashion for 25 miles due south of Fruitland, New Mexico varying in width from one to four miles. The area is made up of plateaus and arroyos intersecting the plateaus. The area has been classified as Class IV under BLM Visual Resource Inventory Handbook 8410-1. The BLM manual describes the class as:

"Class IV: Contrasts may attract attention and be a dominant feature of the landscape in terms of scale; however, the change should repeat the basic element inherent in the characteristic landscape."

The area will have minimal scenic impact due to reclamation of the area in which the land is returned to the approximate original configuration and vegetation.

#### *10.2.2 Evaluation of Noise Levels*

Following is an excerpt from the Navajo Mine EIS, 1976. Current noise levels remain consistent with this assessment.

Except for the loading and hauling operations, there generally will be only one activity in progress at a specific location at any given time.

Generally the locations of different activities would be separated sufficiently so that noise levels at one work location would not be influenced by the levels at other work locations.

In the work areas of the existing Navajo Mine, noise levels were found to be ranged from 68-82 dBA measured at distances of 50 to 150 feet from the source.

Noise levels in the vicinity of machinery used in exposing and removing coal from the coal seams vary with the operations and the machine involved. Sound pressure levels range from 62 dBA measured 170 feet from Marion 7900 Dragline to 72 dBA measured 100 feet from the loading operation. Maximum noise levels measured 75 feet from the centerline of a haul road were 82 dBA for loaded trucks going uphill and 80 dBA for empty trucks going downhill. The trucks used for hauling coal from the Navajo Mine to the stockpiles nominally have 120 ton capacity. A typical passage of a coal haul truck would affect the noise level of the environment for approximately one minute. The distance at which truck noise would not be noticeable would vary from 1/3 mile to 1 mile, depending on wind conditions. Blasting will be done during the day and the noise generated would be of a short duration and be of impulse noise classification.

The noise levels at the mine should result in minimal impacts since applicable standards will be met employees in noisy areas are provided with hearing protection.

*References*

Navajo Tribal Counsel. 1958. Navajo Grazing Handbook.